

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	NCS2003140148
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)	NCS2003140148
Contact mailing address	110 N. Marienfeld, Suite 200, Midland, TX 79706		

Location of Release Source

Latitude 33.62180 Longitude -103.57059
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	New Mexico BW-BX State	Site Type	Tank Battery
Date Release Discovered	11/25/2019	API# (if applicable)	NA

Unit Letter	Section	Township	Range	County
G	16	8S	33E	Chaves

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) 50.2	Volume Recovered (bbls) 0
☒ Produced Water	Volume Released (bbls) 9.6	Volume Recovered (bbls) 0
	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)

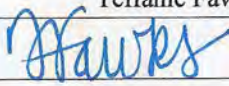
Cause of Release The release was attributed to a failure in the separator.

Incident ID	NCS2003140148
District RP	
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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? Release of over 25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No, spill volume calculations just became available.	

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>10/20/20</u>
email: <u>Teffanies@eeronline.com</u>	Telephone: <u>432-262-4203</u>
<u>OCD Only</u>	
Received by: <u>Cristina Eads</u>	Date: <u>10/22/2020</u>

Incident ID	NCS2003140148
District RP	
Facility ID	
Application ID	

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?	130 (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.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NCS2003140148
District RP	
Facility ID	
Application ID	

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 Fawks

Title: Environmental Technician

Signature: Teffanie FawksDate: 10-21-20email: Teffanies@eeronline.comTelephone: 432-262-4203Teffanusc**OCD Only**Received by: Cristina EadsDate: 10/22/2020

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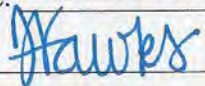
Closure

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: Environmental Technician
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: D E N I E D Date: 01/06/2020

Printed Name: Cristina Eads Title: Environmental Specialist

- Evidence of the depth to groundwater determination is insufficient. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, the data should be no more than 25 years old, and well construction information should be provided. The responsible party may choose to remediate the affected area to the most stringent levels listed in Table 1 in lieu of drilling to determine the depth to groundwater.
- GPS and ULSTR info still do not match. Please have this rectified upon resubmittal of closure report.

Remediation Summary and Soil Closure Request

Endeavor Energy Resources, LP New Mexico BW-BX

Chaves County, New Mexico
Unit Letter G, Section 16, Township 8 South, Range 33 East
Latitude 33.621861 North, Longitude 103.57061 West
NMOCD Reference No. NCS2003140148

Prepared By:

Etech Environmental & Safety Solutions, Inc.
3100 Plains Highway
Lovington, New Mexico 88260



Lance Crenshaw



Joel W. Lowry



TABLE OF CONTENTS

	<i>Section</i>
PROJECT INFORMATION.....	1.0
SITE CHARACTERIZATION.....	2.0
CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE.....	3.0
INITIAL SITE ASSESSMENT.....	4.0
PROPOSED REMEDIATION PLAN.....	5.0
REGULATORY APPROVALS & STIPULATIONS.....	6.0
REMEDATION ACTIVITIES SUMMARY.....	7.0
RESTORATION, RECLAMATION AND RE-VEGETATION PLAN.....	8.0
SOIL CLOSURE REQUEST.....	9.0
LIMITATIONS.....	10.0
DISTRIBUTION.....	11.0

FIGURES

- Figure 1 - Topographic Map
- Figure 2 - Aerial Proximity Map
- Figure 3 - Site & Sample Location Map (Delineation)
- Figure 4 - Site & Sample Location Map (Floor Samples)
- Figure 5 - Site & Sample Location Map (Sidewall Samples)

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 New Mexico BW-BX. Details of the release are summarized below:

Location of Release Source

Latitude: 33.621861 Longitude: -103.57061

Provided GPS are in WGS84 format.

Site Name:	New Mexico BW-BX	Site Type:	Tank Battery
Date Release Discovered:	11/25/2019	API # (if applicable):	

Unit Letter	Section	Township	Range	County
G	16	8S	33E	Chaves

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

Nature and Volume of Release

☒ Crude Oil	Volume Released (bbls)	50.2	Volume Recovered (bbls)	0
☒ Produced Water	Volume Released (bbls)	9.6	Volume Recovered (bbls)	0
	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: The release was attributed to a failure in the separator.				

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?	<u>>100</u>	
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
>100	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 **December 10, 2019**, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores (SP1 through SP4) were advanced within the release margins in an effort to determine the vertical extent of soil impacts. In addition, hand-augered soil bores (NH1, NH2, EH1 through EH6, SH1 through SH3, and WH1 through WH6) 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 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, **forty-four (44)** delineation soil samples, two samples per sample location noted above, 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 and/ NMOCD Reclamation Standard beyond 1 Ft. bgs in the area characterized by sample point SP 1 and 2 Ft. bgs in the areas characterized by sample points SP 2 and SP 4, additional delineation would be required in the areas characterized by sample points SP3, NH1 and SH2.

On **December 26, 2019**, Etech personnel revisited the location in an effort to further delineate the site. A series of hand-augered soil bores were advanced at previous sample locations (**SP2, SP3, NH1, and SH2**) in an effort to further delineate the vertical 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 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, **six (6)** delineation soil samples (**SP2 @ 2.5'-R, SP3 @ 3', SP3 @ 4', NH1b @ Surf, SH2b @ Surf, and SH2b @ 1'**) were submitted to the laboratory for analysis of TPH and/or Chloride. Based on laboratory analytical results, with the exception of SP3 at 4 ft bgs, soil was not affected above the NMOCD Closure Criteria beyond 4 ft. bgs in the area characterized by sample point SP3 and the horizontal extent of impacts was adequately defined. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in 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

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in the areas characterized by sample points SP1 and SP2 to a depth of approximately 1 Ft. bgs, sample point SP3 to a depth of approximately 4 ft. bgs, and SP4 to a depth of approximately 2 ft. bgs.
- The floor and sidewalls of the excavated area will be advanced until laboratory analytical results indicated impacted soil affected above the NMOCD Closure Criteria and/or the NMOCD Reclamation Standard 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 and/or the NMOCD Reclamation Standard, 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 January 16, 2020, a Site Assessment Report and Proposed Remediation Workplan was submitted to the NMOCD proposing remediation activities designed to advance the Site toward regulatory closure.

Please reference the Site Assessment Report and Proposed Remediation Workplan, dated January 2020, for additional details regarding site characterization and proposed remediation activities.

7.0 REMEDIATION ACTIVITIES SUMMARY

On April 8, 2020, remediation activities commenced at the Site. In accordance with the 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 and/or NMOCD Reclamation Standard.

On April 9, 2020, Etech continued excavation activities and collected 23 excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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 exceptions of EW4 (126 mg/kg TPH), EW9 (1110 mg/kg TPH), FS1 (239 mg/kg TPH), FS2 (231 mg/kg TPH), FS3 (1110 mg/kg GRO+DRO and 1350 mg/kg TPH), FS6 (239 mg/kg TPH), FS7 (208 mg/kg TPH and 1290 mg/kg chloride), SW1 (887 mg/kg TPH), W8 (1190 mg/kg TPH), WW2 (721 mg/kg TPH), WW3 (971 mg/kg TPH), WW4 (1090 mg/kg TPH), WW7 (226 mg/kg TPH), and WW9 (625 mg/kg TPH).

On April 13, 2020, Etech continued excavation activities and collected 13 excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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 exceptions of EW10 (882 mg/kg chloride) and WW11 (711 mg/kg TPH).

On April 14, 2020, Etech continued excavation activities and collected 6 excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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 EW15, which exhibited a chloride concentration of 631 mg/kg.

On April 15, 2020, Etech continued excavation activities and collected 10 excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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 EW-16-2, which exhibited a chloride concentration of 648 mg/kg.

Impacted soil in the area characterized by sample point EW-16-2 was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected 1 additional excavation confirmation soil sample and submitted it to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in the submitted soil sample.

On April 16, 2020, Etech continued excavation activities and collected seven (7) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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 exceptions of NW18-2 (128 mg/kg TPH) and WW21 (530 mg/kg TPH).

In addition, impacted soil in the areas characterized by sample points EW4, EW9, FS1, FS2, FS3, FS6, and FS7 was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected 7 additional excavation confirmation soil samples and submitted them to the laboratory for analysis of BTEX, TPH and 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.

On April 20, 2020, Etech continued excavation activities. Impacted soil in the areas characterized by sample points EW15 and SW1 was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected 2 additional excavation confirmation soil samples and submitted them to the laboratory for analysis of BTEX, TPH and 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.

On April 22, 2020, Etech continued excavation activities and collected eleven (11) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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 exceptions of FS1-6A (1,380 mg/kg GRO+DRO) and FS18-5A (1, 120 mg/kg GRO+DRO).

Impacted soil in the area characterized by sample point FS1-6A was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected 1 additional excavation confirmation soil sample and submitted it to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in the submitted soil sample.

On April 27, 2020, Etech continued excavation activities. Impacted soil in the areas characterized by sample points NW18, and WW21 was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected four (4) additional excavation confirmation soil samples and submitted them to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated TPH concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples with the exceptions of NW 18-2 (240 mg/kg) and WW21 (856 mg/kg).

On May 6, 2020, Etech continued excavation activities. Impacted soil in the areas characterized by sample points NW 18-2 and WW21 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 BTEX, TPH and 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.

On May 12, 2020, Etech continued excavation activities and collected fifteen (15) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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 May 28, 2020, Etech continued excavation activities and collected five (5) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or 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.

In addition, impacted soil in the areas characterized by sample points EW10, WW11, WW2, WW3, WW4, WW7, WW8, and WW9 was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected eight (8) additional excavation confirmation soil samples and submitted them to the laboratory for analysis of BTEX, TPH and 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.

On June 3, 2020, Etech continued excavation activities. Impacted soil in the area characterized by sample point FS18-5C was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected 1 additional excavation confirmation soil sample and submitted it to the laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in the submitted soil sample.

A "Site & Sample Location Map" is provided in Figures 3, 4, and 5. 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 600 Ft. in length, 20 to 185 Ft in width and ranged from 2 to 4 Ft. in depth. During the course of remediation activities approximately 5,020 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 and/or landowner-approved seed mixture free of noxious weeds during the first favorable growing season following closure of the site.

9.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with a proposed 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 New Mexico BW-BX 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 reference in the report and on oral statements made by certain individuals. Basis 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 within 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 2
811 S. First Street
Artesia, NM 88210*

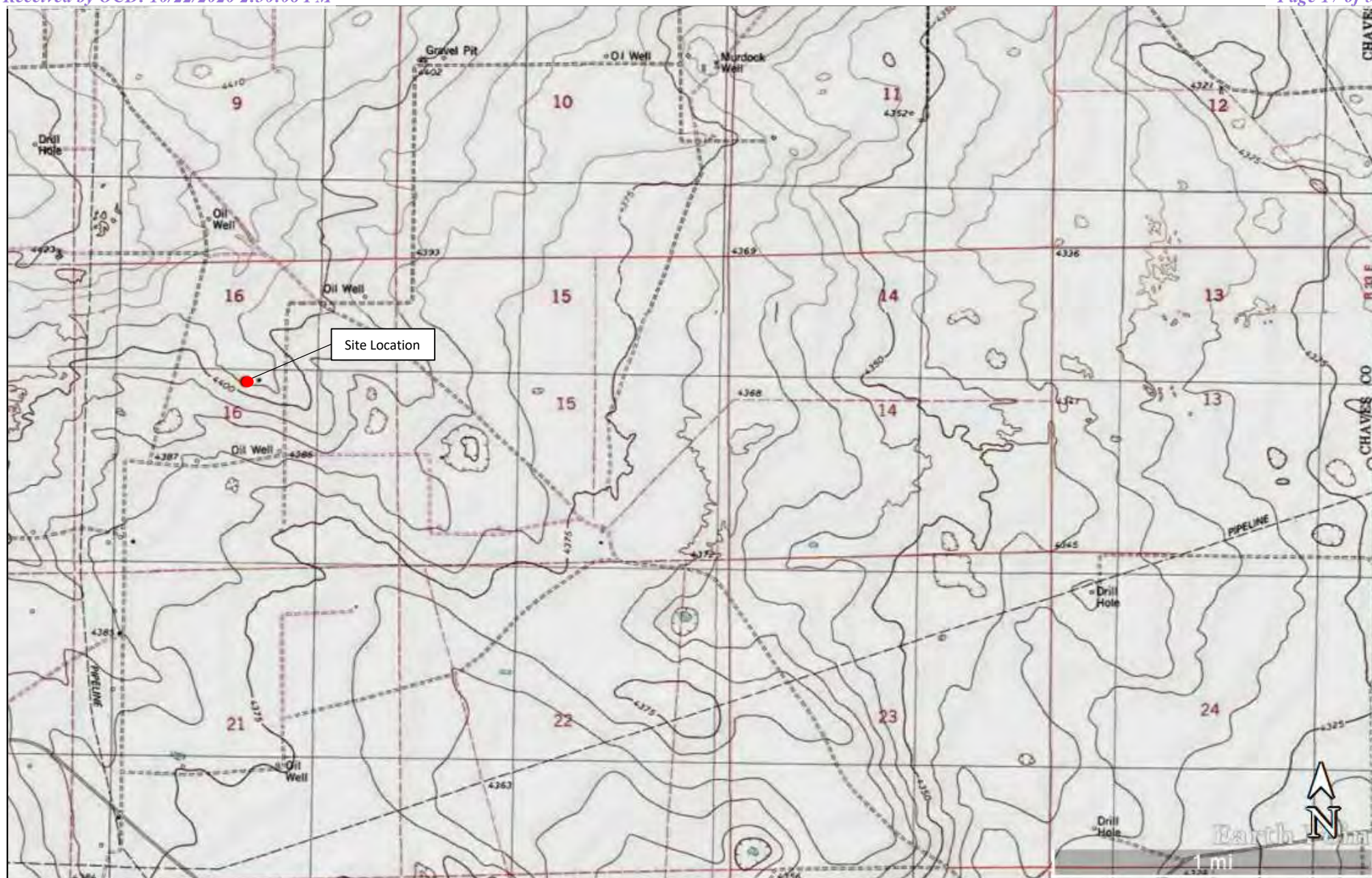
Hobbs Field Office

*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
 New Mexico BW-BX
 GPS: 33.621861, -103.57061
 Chaves County



Drafted: lc

Checked: jwl

Date: 1/10/20

Figure 2

Aerial Proximity Map

**Legend:**

- Site Location
- Half Mile Radius

Figure 2
Aerial Map
Endeavor Energy Resources, LP
New Mexico BW-BX
GPS: 33.621861, -103.57061
Chaves County

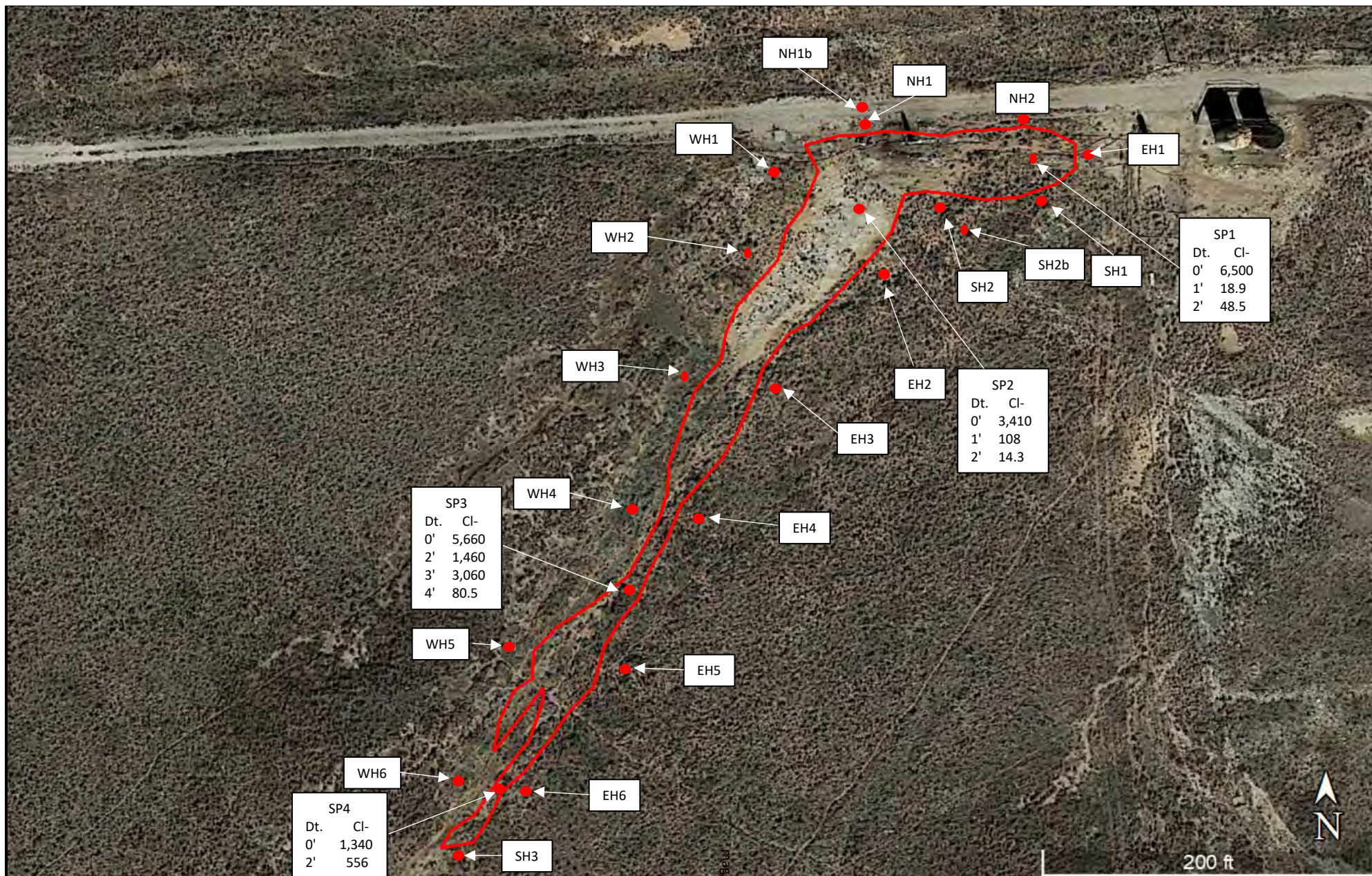


Drafted: lc

Checked: jwl

Date: 1/10/20

Figure 3
Site and Sample Location Map (Delineation)



Legend:

- Sample Point
- Affected Area

Figure 3

Site and Sample Location Map
 Endeavor Energy Resources, LP
 New Mexico BW-BX
 GPS: 33.621861, -103.57061
 Chaves County



Drafted: lc

Checked: jwl

Date: 1/16/20

Figure 4
Site and Sample Location Map (Floor Samples)



Legend:

-  Composite Sample Location
-  Affected Area
-  Excavated Area

Figure 4

Site and Sample Location Map
 Endeavor Energy Resources, LP
 New Mexico BW-BX
 GPS: 33.621861, -103.57061
 Chaves County



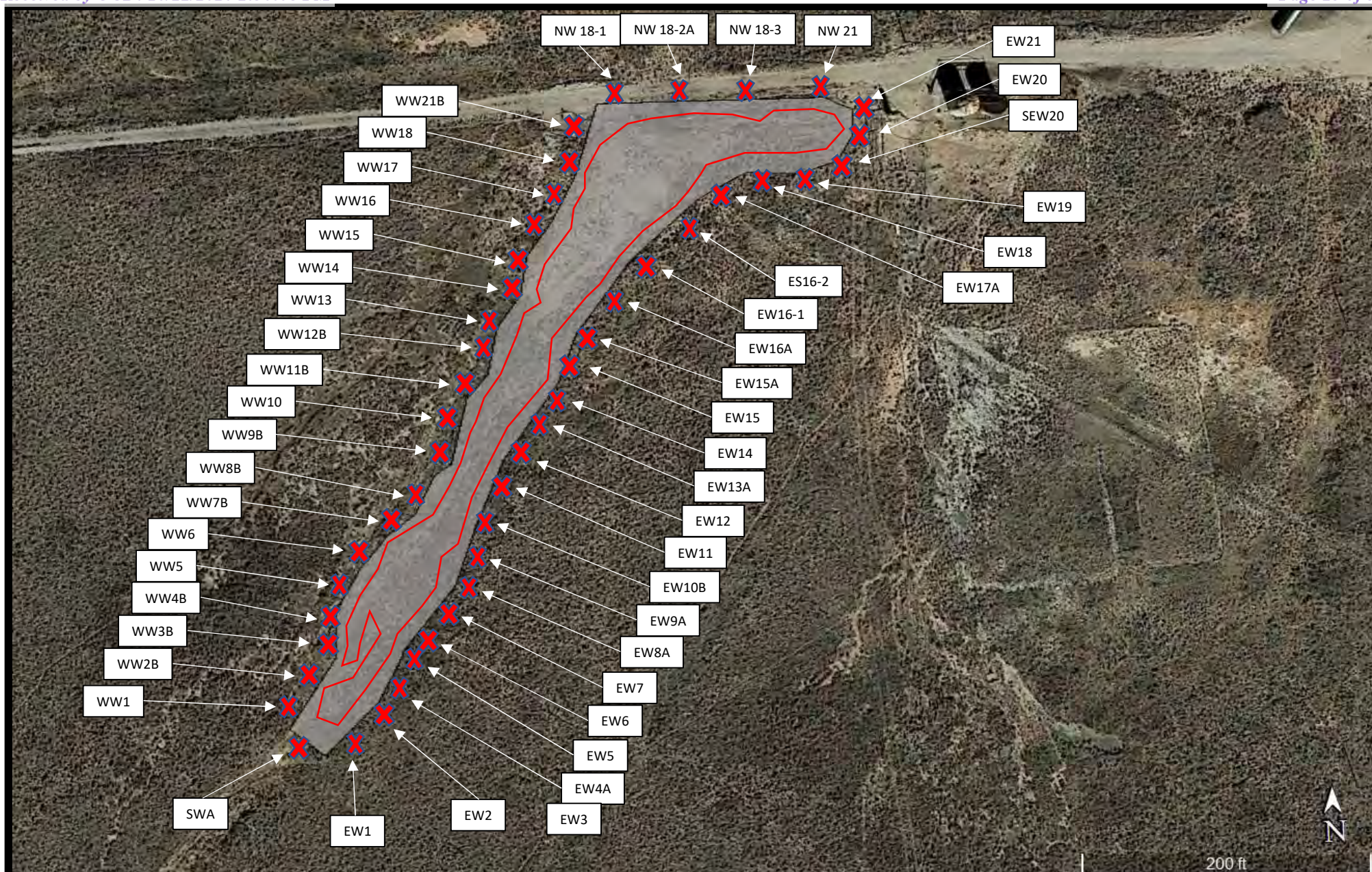
Drafted: lc

Checked: jwl

Date:

7/22/20

Figure 5
Site and Sample Location Map (Sidewall Samples)



Legend:

- Composite Sample Location
- Affected Area
- Excavated Area

Figure 5

Site and Sample Location Map
 Endeavor Energy Resources, LP
 New Mexico BW-BX
 GPS: 33.621861, -103.57061
 Chaves County



Drafted: lc

Checked: jwl

Date: 7/20/20

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
New Mexico BW-BX
NMOCD Ref. #: nCS2003140148

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)
EH1 @ 2'	12/10/2019	2'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	<4.96
EH1 @ Surf	12/10/2019	0'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00
EH2 @ 2'	12/10/2019	2'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	21.6
EH2 @ Surf	12/10/2019	0'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	13.6
EH3 @ 2'	12/10/2019	2'	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	<4.95
EH3 @ Surf	12/10/2019	0'	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	<5.02
EH4 @ 2'	12/10/2019	2'	In-Situ	<0.0103	<0.0103	<50.0	<50.0	<50.0	<50.0	<50.0	16.9
EH4 @ Surf	12/10/2019	0'	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	<5.04
EH5 @ 2'	12/10/2019	2'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95
EH5 @ Surf	12/10/2019	0'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	10.5
EH6 @ 2'	12/10/2019	2'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	27.7
EH6 @ Surf	12/10/2019	0'	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<5.02
NH1 @ 2'	12/10/2019	2'	In-Situ	<0.00198	<0.00198	<50.0	92.8	92.8	<50.0	92.8	68.0
NH1 @ Surf	12/10/2019	0'	Excavated	<0.00198	<0.00198	<50.0	252	252	<50.0	252	22.0
NH2 @ 2'	12/10/2019	2'	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	5.86
NH2 @ Surf	12/10/2019	0'	In-Situ	<0.00201	<0.00201	<50.0	61.2	61.2	<50.0	61.2	9.95
SH1 @ 2'	12/10/2019	2'	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	13.2
SH1 @ Surf	12/10/2019	0'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	37.2
SH2 @ 2'	12/10/2019	2'	Excavated	<0.00200	<0.00200	<250	269	269	<250	269	205
SH2 @ Surf	12/10/2019	0'	Excavated	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	14.4
SH3 @ 2'	12/10/2019	2'	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98
SH3 @ Surf	12/10/2019	0'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<5.02
SP 1 @ 2'	12/10/2019	2'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	48.5
SP 1 @ Surf	12/10/2019	0'	Excavated	<0.00199	0.0127	<49.9	573	573	72.8	646	6,500
SP 1 @ 1'	12/10/2019	1'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	18.9
SP 2 @ 1'	12/10/2019	1'	In-Situ	-	-	-	-	-	-	-	108
SP 2 @ 2'	12/10/2019	2'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	14.3
SP 2 @ Surf	12/10/2019	0'	Excavated	<0.00202	<0.00202	<49.9	3,070	3,070	644	3,710	3,410
SP 3 @ 2'	12/10/2019	2'	Excavated	<0.00201	<0.00201	<49.9	107	107	<49.9	107	1,460
SP 3 @ Surf	12/10/2019	0'	Excavated	<0.00198	<0.00198	<50.0	498	498	162	660	5,660
SP 4 @ 2'	12/10/2019	2'	In-Situ	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	556
SP 4 @ Surf	12/10/2019	0'	Excavated	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	1,340
WH1 @ 2'	12/10/2019	2'	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	320
WH1 @ Surf	12/10/2019	0'	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	154
WH2 @ 2'	12/10/2019	2'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05
WH2 @ Surf	12/10/2019	0'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<5.03
WH3 @ 2'	12/10/2019	2'	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	<4.96
WH3 @ Surf	12/10/2019	0'	In-Situ	<0.00198	0.00267	<49.9	53.1	53.1	<49.9	53.1	<5.03
WH4 @ 2'	12/10/2019	2'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	<5.01
WH4 @ Surf	12/10/2019	0'	In-Situ	<1.00	<1.00	<50.0	<50.0	<50.0	<50.0	<50.0	<4.99
WH5 @ 2'	12/10/2019	2'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	93.1

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
New Mexico BW-BX
NMOCD Ref. #: nCS2003140148

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)
WH5 @ Surf	12/10/2019	0'	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	<5.04
WH6 @ 2'	12/10/2019	2'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	71.6
WH6 @ Surf	12/10/2019	0'	In-Situ	<0.00202	<0.00202	<50.0	56.2	56.2	<50.0	56.2	9.07
NH1b @ Surf	12/26/2019	0'	Excavated	--	--	<50.0	61.1	61.1	59.5	121	--
SH2b @ 1'	12/26/2019	1'	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
SH2b @ Surf	12/26/2019	0'	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
SP 2 @ 2.5' - R	12/26/2019	2.5'	In-Situ	-	-	<50.0	50.0	50.0	<50.0	50.0	-
SP 3 @ 3'	12/26/2019	3'	Excavated	-	-	-	-	-	-	-	3,060
SP 3 @ 4'	12/26/2019	4'	In-Situ	-	-	-	-	-	-	-	80.5
EW1	4/9/2020	N/A	In-Situ	<0.00200	0.00451	<49.9	<49.9	<49.9	<49.9	<49.9	5.57
EW2	4/9/2020	N/A	In-Situ	<0.00200	0.00204	<50.0	<50.0	<50.0	<50.0	<50.0	<4.96
EW3	4/9/2020	N/A	In-Situ	0.00418	0.0164	<50.0	63.1	63.1	<50.0	63.1	<5.03
EW4	4/9/2020	N/A	Excavated	<0.00201	<0.00201	<49.9	126	126	<49.9	126	141
EW5	4/9/2020	N/A	In-Situ	<0.00199	0.00629	<49.8	61.5	61.5	<49.8	61.5	21.0
EW6	4/9/2020	N/A	In-Situ	<0.00199	0.00279	<49.8	68.7	68.7	<49.8	68.7	23.1
EW7	4/9/2020	N/A	In-Situ	<0.00198	<0.00198	<50.0	84.5	84.5	<50.0	84.5	5.17
EW9	4/9/2020	N/A	Excavated	<0.00200	0.00448	<50.0	929	929	179	1,110	418
FS1	4/9/2020	2'	Excavated	<0.00199	0.00206	<49.8	169	169	70.3	239	13.1
FS2	4/9/2020	2'	Excavated	0.00417	0.0138	<49.9	173	173	57.7	231	8.17
FS3	4/9/2020	2'	Excavated	<0.00199	0.0181	<49.8	1,110	1,110	241	1,350	57.4
FS6	4/9/2020	2'	Excavated	<0.00199	0.00242	<50.0	239	239	<50.0	239	165
FS7	4/9/2020	2'	Excavated	<0.00202	0.00241	<50.0	208	208	<50.0	208	1,290
SW1	4/9/2020	N/A	Excavated	0.00461	0.0171	<50.0	625	625	262	887	<5.03
W8	4/9/2020	N/A	Excavated	0.00211	0.00586	<50.0	952	952	234	1,190	66.8
WW1	4/9/2020	N/A	In-Situ	<0.00198	0.00347	<49.9	96.5	96.5	<49.9	96.5	<5.00
WW2	4/9/2020	N/A	Excavated	0.00311	0.00815	<50.0	536	536	185	721	13.8
WW3	4/9/2020	N/A	Excavated	0.00275	0.00657	<50.0	682	682	289	971	7.85
WW4	4/9/2020	N/A	Excavated	<0.00200	0.00224	<49.9	836	836	254	1,090	26.5
WW5	4/9/2020	N/A	In-Situ	0.00394	0.0137	<50.0	94.6	94.6	<50.0	94.6	53.5
WW6	4/9/2020	N/A	In-Situ	<0.00198	0.00221	<49.9	69.8	69.8	<49.9	69.8	21.6
WW7	4/9/2020	N/A	Excavated	<0.00200	<0.00200	<50.0	226	226	<50.0	226	166
WW9	4/9/2020	N/A	Excavated	<0.00201	0.00231	<50.0	486	486	139	625	105
EW10	4/13/2020	N/A	Excavated	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	882
EW11	4/13/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	14.1
EW12	4/13/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	59.7
EW8A	4/13/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<5.04
FS10	4/13/2020	2'	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	362
FS11	4/13/2020	4'	In-Situ	<0.00199	<0.00199	<50.0	125	125	53.8	179	308
FS12B	4/13/2020	2'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	349
FS4A	4/13/2020	2'	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	294
FS5A	4/13/2020	2'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	14.9

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
New Mexico BW-BX
NMOCD Ref. #: nCS2003140148

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)
FS8A	4/13/2020	2'	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	332
FS9A	4/13/2020	2'	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	75.9
WW10	4/13/2020	N/A	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	104
WW11	4/13/2020	N/A	Excavated	<0.00201	<0.00201	<49.9	430	430	281	711	6.29
EW13A	4/14/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	<5.01
EW14	4/14/2020	N/A	In-Situ	<0.00201	0.00211	<50.0	<50.0	<50.0	<50.0	<50.0	59.1
EW15	4/14/2020	N/A	Excavated	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	631
FS13B	4/14/2020	2'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	561
WW16	4/14/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	149
WW17	4/14/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	83.4
ES16-2	4/15/2020	N/A	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	525
EW16-1	4/15/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	378
EW16-2	4/15/2020	N/A	Excavated	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	648
EW16A	4/15/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	387
EW17-A	4/15/2020	N/A	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	35.3
EW18	4/15/2020	N/A	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	69.5
EW19	4/15/2020	N/A	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	14.3
EW20	4/15/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	10.1
FS18-1A	4/15/2020	2'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	515
FS20	4/15/2020	2'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	140
SEW20	4/15/2020	N/A	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	8.83
EW21	4/16/2020	N/A	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	101
EW4A	4/16/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
EW9A	4/16/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
FS1	4/16/2020	3'	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
FS21	4/16/2020	2'	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	73.4
FS2A	4/16/2020	3'	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
FS3A	4/16/2020	3'	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
FS6A	4/16/2020	3'	In-Situ	-	-	<49.8	61.8	61.8	<49.8	61.8	-
FS7A	4/16/2020	4'	In-Situ	-	-	-	-	-	-	-	65.4
NW18-1	4/16/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	14.0
NW18-2	4/16/2020	N/A	Excavated	<0.00202	<0.00202	<49.9	73.2	73.2	54.5	128	181
NW18-3	4/16/2020	N/A	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	437
NW21	4/16/2020	N/A	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	29.8
WW21	4/16/2020	N/A	Excavated	<0.00199	0.00215	<50.0	302	302	228	530	76.4
EW 15A	4/20/2020	N/A	In-Situ	-	-	-	-	-	-	-	85.2
SWA	4/20/2020	N/A	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
FS 15A	4/22/2020	4'	In-Situ	<0.00785	<0.00406	<49.9	210	210	70.8	281	6,470
FS 16A	4/22/2020	4'	In-Situ	<0.00848	<0.00439	<49.8	70.3	70.3	<49.8	70.3	3,800
FS12C	4/22/2020	4'	In-Situ	<0.00835	<0.00433	<49.9	<49.9	<49.9	<49.9	<49.9	573
FS13C	4/22/2020	4'	In-Situ	<0.00879	<0.00455	<49.8	<49.8	<49.8	<49.8	<49.8	893

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
New Mexico BW-BX
NMOCD Ref. #: nCS2003140148

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)
FS14C	4/22/2020	4'	In-Situ	<0.00843	<0.00437	<49.9	82.8	82.8	<49.9	82.8	986
FS1-6A	4/22/2020	3'	Excavated	<0.00831	0.0129	<49.9	1,380	1,380	331	1,710	2,120
FS17-1C	4/22/2020	4'	In-Situ	<0.00879	<0.00455	<49.9	<49.9	<49.9	<49.9	<49.9	5,410
FS17-2A	4/22/2020	4'	In-Situ	<0.00831	<0.00430	<49.9	<49.9	<49.9	<49.9	<49.9	1,160
FS18-2B	4/22/2020	4'	In-Situ	<0.00885	<0.00458	<49.9	280	280	94.5	375	2,870
FS18-3C	4/22/2020	4'	In-Situ	<0.00817	<0.00423	<50.0	<50.0	<50.0	<50.0	<50.0	1,900
FS18-5A	4/22/2020	4'	Excavated	<0.00845	<0.00437	<50.0	1,120	1,120	277	1,400	3,150
FS-4A	4/22/2020	4'	In-Situ	<0.00879	<0.00455	<50.0	368	368	110	478	2,000
EW 16-3	4/27/2020	N/A	In-Situ	-	-	-	-	-	-	-	110
EW15	4/27/2020	N/A	In-Situ	-	-	-	-	-	-	-	40.1
NW 18-2	4/27/2020	N/A	Excavated	-	-	<49.9	160	160	80.2	240	-
WW21	4/27/2020	N/A	Excavated	-	-	<49.9	581	581	275	856	-
NW 18-2A	5/6/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
WW 21B	5/6/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
FS22	5/12/2020	4'	In-Situ	<0.00200	0.00791	<49.9	56.9	56.9	<49.9	56.9	2,540
FS23	5/12/2020	4'	In-Situ	<0.00199	0.00598	<50.0	<50.0	<50.0	<50.0	<50.0	5,140
FS24	5/12/2020	4'	In-Situ	0.00298	0.0183	<49.9	64.4	64.4	<49.9	64.4	1,320
FS25	5/12/2020	4'	In-Situ	0.0139	0.0592	<50.0	<50.0	<50.0	<50.0	<50.0	58.4
FS26	5/12/2020	4'	In-Situ	0.00261	0.0113	<50.0	<50.0	<50.0	<50.0	<50.0	1,090
FS27	5/12/2020	4'	In-Situ	0.00346	0.0152	<49.9	<49.9	<49.9	<49.9	<49.9	5,960
FS28	5/12/2020	4'	In-Situ	0.00712	0.0408	<50.0	<50.0	<50.0	<50.0	<50.0	4,230
FS29	5/12/2020	4'	In-Situ	0.0177	0.0793	<50.0	<50.0	<50.0	<50.0	<50.0	1,600
FS30	5/12/2020	4'	In-Situ	0.00452	0.0233	<50.0	<50.0	<50.0	<50.0	<50.0	983
FS31	5/12/2020	4'	In-Situ	0.00482	0.0178	<49.9	58.8	58.8	<49.9	58.8	331
FS32	5/12/2020	4'	In-Situ	0.00741	0.0337	<49.8	72.7	72.7	<49.8	72.7	174
FS33	5/12/2020	4'	In-Situ	0.0204	0.110	<50.0	<50.0	<50.0	<50.0	<50.0	26.7
FS34	5/12/2020	4'	In-Situ	0.0107	0.0469	<49.9	94.9	94.9	<49.9	94.9	5,580
FS35	5/12/2020	4'	In-Situ	0.00288	0.0136	<50.0	90.7	90.7	<50.0	90.7	4,890
FS36	5/12/2020	4'	In-Situ	0.00342	0.0194	<49.9	87.1	87.1	<49.9	87.1	5,050
EW10B	5/28/2020	N/A	In-Situ	-	-	-	-	-	-	-	41.6
EW8	5/28/2020	N/A	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	21.1
WW11B	5/28/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
WW12B	5/28/2020	N/A	In-Situ	0.00367	0.0428	<50.0	<50.0	<50.0	<50.0	<50.0	10.0
WW13	5/28/2020	N/A	In-Situ	<0.00199	0.0117	<50.0	<50.0	<50.0	<50.0	<50.0	55.1
WW14	5/28/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	20.5
WW15	5/28/2020	N/A	In-Situ	0.00306	0.0450	<50.0	<50.0	<50.0	<50.0	<50.0	9.60
WW18	5/28/2020	N/A	In-Situ	0.0110	0.0478	<50.0	<50.0	<50.0	<50.0	<50.0	20.5
WW2B	5/28/2020	N/A	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
WW3B	5/28/2020	N/A	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
WW4B	5/28/2020	N/A	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
WW7B	5/28/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-

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
New Mexico BW-BX
NMOCD Ref. #: nCS2003140148

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)
WW8B	5/28/2020	N/A	In-Situ	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-
WW9B	5/28/2020	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-
FS18-5C	6/3/2020	5'	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-

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
- USGS Water Well

Figure 6
 USGS Well Proximity Map
 Endeavor Energy Resources, LP
 New Mexico BW-BX
 GPS: 33.621861, -103.57061
 Chaves County



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USGS Water Resources

Data Category:

Groundwater ▼

Geographic Area:

United States ▼

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Search Results -- No sites found

No sites were found for groundwater level data using your search criteria.

The sites you requested may be available offline. For more information, contact [USGS Water Data Inquiries](#).

lat_long_bounding_box

=

Position	Latitude	Longitude
Corner 1	33.629225	103.579783
Corner 2	33.614367	103.561767
Coordinates are entered as Decimal Degrees. DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values		

Minimum number of 1
levels =

Use the "Back" button on your browser to change your search criteria.

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No sites were found for groundwater level data using your search criteria.

The sites you requested may be available offline. For more information, contact [USGS Water Data Inquiries](#).

lat_long_bounding_box

=

Position	Latitude	Longitude
Corner 1	33.636609	103.588863
Corner 2	33.607238	103.552513
Coordinates are entered as Decimal Degrees. DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values		

Minimum number of 1
levels =

Use the "Back" button on your browser to change your search criteria.

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Agency code = usgs

site_no list =

- 333651103370901

Minimum number of levels = 1

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USGS 333651103370901 08s.32e.13.43421

Chaves County, New Mexico

Latitude 33°36'51", Longitude 103°37'09" NAD27

Land-surface elevation 4,418 feet above NGVD29

The depth of the hole is 180.00 feet below land surface.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement
1995-01-25										
1995-01-25		D	127.55			2		S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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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: 2020-01-10 13:23:25 EST

0.23 0.2 nadww01



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Groundwater levels for the Nation

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Agency code = usgs

site_no list =

- 333902103343401

Minimum number of levels = 1

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USGS 333902103343401 08S.33E.04.114343

Chaves County, New Mexico

Latitude 33°39'02", Longitude 103°34'34" NAD27

Land-surface elevation 4,423 feet above NGVD29

The depth of the well is 453 feet below land surface.

Output formats

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

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurment
1995-02-01		D	256.02			2		S	USGS	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement.
Measuring agency	USGS	U.S. Geological Survey
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0.22 0.2 nadww02



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 632590.61

Northing (Y): 3721144.39

Radius: 1760

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.



New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 632590.61

Northing (Y): 3721144.39

Radius: 880

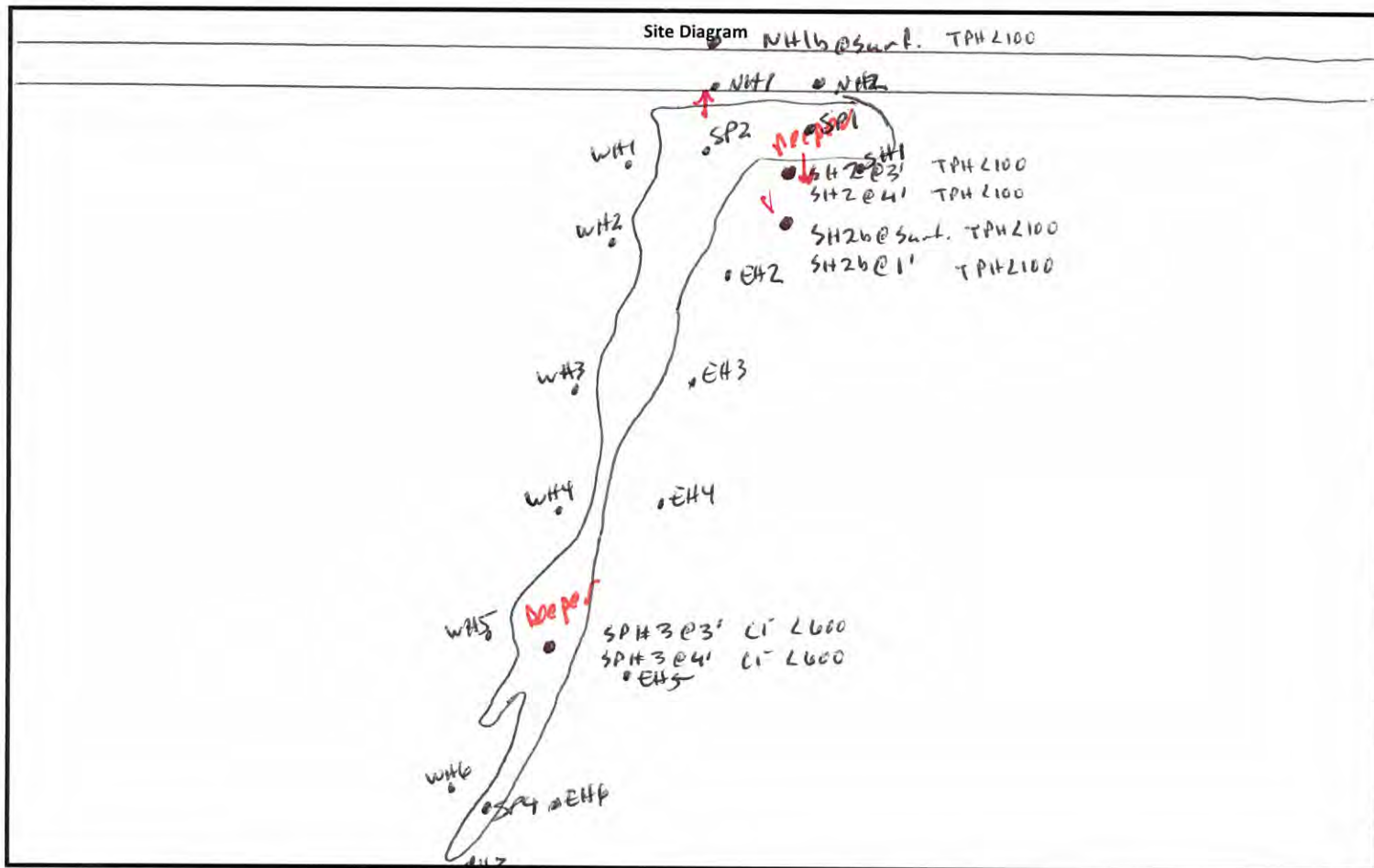
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Appendix B

Field Data and Soil Profile Logs

Initial Release Assessment Form

Project: New Mexico BW-BX Clean Up Level: 0
 Date: 12/10/19
 Project Number: 11573 Latitude: 33.321864 Longitude: -103.570594



Notes: IRA site. Collect samples & field screen. Delineate site. Photograph site

~Length: ~525 ~Width: ~160' at widest
 ~10' at narrowest ~Area: 18,400

~Depth: 2-4 feet

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: 12/10/19

Project: New Mexico BW-BX

Project Number: 11573 Latitude: 33.321864 Longitude: -103.570594

Sample ID	PID/Odor	Chloride Conc.	GPS
NH1 @ surface	none	7132 148	
NH1 @ 2'	none	7132	
NH2 @ surface	Very light	180	
NH2 @ 2'	Light	208	
EH1 @ surface	none	7132	
EH1 @ 2'	none	180	
EH2 @ surface	Very light	120	
EH2 @ 2'	none	180	
EH3 @ surface	none	7132	
EH3 @ 2'	none	172	
EH4 @ surface	none	7132	
EH4 @ 2'	none	7132	
EH5 @ surface	none	7132	
EH5 @ 2'	none	268	
EH6 @ surface	none	7132	
EH6 @ 2'	none	132	
WH1 @ surface	none	580	
WH1 @ 2'	none	148	
WH2 @ surface	none	7132	
WH2 @ 2'	none	7132	
WH3 @ surface	none	180	
WH3 @ 2'	none	180	
WH4 @ surface	none	204	
WH4 @ 2'	none	7132	
WH5 @ surface	none	7132	
WH5 @ 2'	none	7132	
WH6 @ surface	none	180	
WH6 @ 2'	none	172	
SH1 @ surface	none	336	
SH1 @ 2'	none	7132	
SH2 @ surface	none	7132	
SH2 @ 2'	none	360	
SH3 @ surface	none	7132	
SH3 @ 2'	none	564	

Sample Point = SP #1 @ ## etc

Test Trench = TT #1 @ ##

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

Floor = FL #1 etc

Refusal = SP #1 @ 4'-R

Stockpile = Stockpile #1

Sidewall = SW #1 etc

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

GPS Sample Points, Center of Comp Areas

Soil Profile

Date: 12/10/19

Project: New Mexico BW-BX

Project Number: 11573 Latitude: 33.321864 Longitude: -103.570594

Depth (ft. bgs)

Description

1	Rocky soil w/ caliche
2	Rocky soil with caliche
3	
4	
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Sample Log

Date: 4-9-20

Project: New Mexico BW-BX

Project Number: 11573

Latitude: 33.621861

Longitude: -103.57061

Sample ID	PID/Odor	Chloride Conc.	GPS
SW1	0.0	280	Sand-Dirt
EW1	0.0	168	Sand
WW1	0.0	196	Sand
FS1	2 1/2	0.0	248
EW2	0.0	196	Cal.
FS2 FS2	2 1/2	0.0	556
WW2	0.0	196	SD
FS2	2 1/2	0.0	196
EW3 EW3	0.0	196	SD
EW3	0.0	196	SD
WW3	0.0	148	SD
FS3	2 1/2	0.0	348
EW4	None	280	SD
EW5	None	<124	SD
FS4	Bad	None	>2592
FS5	Bad	None	1700
WW6	None	124	SD
WW5	None	304	SD
WW4	None	124	SD
WW8	None	148	D
FS8	Bad	None	820
EW8	Bad	None	636
EW9	None	580	D
EW7	None	120	SD
FS7	30 4'	light odor	1384
WW7	None	236	D
WW9	light smell	432	D
FS9	Bad	None	1384
FS4A	3'	None	2384 464
FS5A	4'	None	424
FS8A	3 1/2"	None	424
EW8A	None	<124	D
FS9A	2 1/2"	None	348
FS10	4'	None	528
EW10	None	580	D
WW10	None	268	D

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



Sample Log

Project: New Mexico BW-BX

Date: _____

Project Number: 11573

Latitude: 33.621861

Longitude: -103.57061

Sample ID	PID/Odor	Chloride Conc.	GPS
FS 11 2'	None	344	CD
EW 11	None	<120	D
WW 11	None	204	D
FS 12 High	Light odor	1384	D
EW 12	None	172	D
WW 12 High	Light odor	960	D
FS 12A WW12A High	Light odor	2008	D
FS 12A FS 12A High	None	1144	C
FS 13 FS 13 High	Light odor	916	C
FS 12B 3 1/2'	None	528	C
EW 14	None	148	SD
WW 14 High	Light odor	820	D
FS 14 High	None	>2592	CD
EW 13 High	None	636	SD
WW 13 High	None	1700	D
FS 13A High	None	636	C
FS 13B 4'	None	388	C
EW 13A	None	<120	SD
FS 14A ✓ High	Light odor	1116	C
WW 13A ✓ High	None	>2592	D
WW 14A ✓ High	Light odor	636	D
FS 14B ✓ High	None	960	C
FS 15 ✓ High	None	>2592	DC
WW 15 High	None	1288	D
EW 15	None	8344	D
FS 16 ✓ High	None	2592	CD
EW 16 ✓ High	None	696	D
WW 16	None	236	D
FS 17 1' High	None	>2416	
EW 17 ✓ High	None	616	D
WW 17	None	180	D
FS 18 ✓ High	None	2092	
FS 18A			
FS 18B			
FS 18C			
FS 18D			
FS 18E			
FS 18F			
FS 18G			
FS 18H			
FS 18I			
FS 18J			
FS 18K			
FS 18L			
FS 18M			
FS 18N			
FS 18O			
FS 18P			
FS 18Q			
FS 18R			
FS 18S			
FS 18T			
FS 18U			
FS 18V			
FS 18W			
FS 18X			
FS 18Y			
FS 18Z			

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

Sample Log

Date: _____

Project: New Mexico BW-BX

Project Number: 11573

Latitude: 33.621861

Longitude: -103.57061

4-15-20

Sample ID	PID/Odor	Chloride Conc.	GPS
FS 18-1	High None	>2416 C D	
EW 18	None	268 SD	
FS 19	High None	1692 C D	
EW 19	None	236 SD	
EW 16A	None	268 SD	
FS 16-1	None	512 C	
FS 16-2	None	376 C	
FS 17-1A	High None	2416 C	
EW 17A	None	132 SD	
NW 20	None	564 DS	
SEW 20	None	<132 SD	
FS 20	None	512 DSC	
EW 20	None	180 DS	
FS 17-2	High None	1472 C	
FS 17-2	High None	>2416 D	
FS 18-2	High None	>2416 D	
NW 18	High None	944 D	
FS 18-2A	High None	1100 C	
NEW 18	High None	>2416 D	
FS 18-1A	None	464 C	
FS 18-3	High None	>2416 C	
NW 18-1	None	208 D	
NW 18-2	None	208 D	
NW 18-3	Mild odor	508 D	
FS 17-1B	High None	1744 C	
FS 21	None	464 D	
EW 21	None	348 D	
NW 18	Light odor	608 SD	
FS 7A	None	300 C	
FS 18-3A	High Light odor	>2416 C	
FS 18-4	High Light odor	1692 DC	
FS 18-5	High None	>2416 DC	
FS 18-6	High None	872 DC	
NW 21	None	348 D	
FS 18-2B NW 21	None	248 D	
FS 18-3 B	High Light odor	664 C	

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

4PH 4^c

620

Sample Log

Date: 4-8-20

Project: New Mexico BW-BX

Project Number:	11573	Latitude:	33.621861	Longitude:	-103.57061
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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

$\psi > 10000$

Date:

5/12/20

Project:

Project Number:

Latitude:

Longitude:

GPS Sample Points, Center of Comp Areas

Sample Log

Date:

12-26-19

Project: New Mexico BW-BX

Project Number: 11573

Latitude: 33.621861

Longitude: -103.57061

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

Appendix C

Laboratory Analytical Reports

Analytical Report 646597

for
Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

New Mexico BW-BW

11573

23-DEC-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)



23-DEC-19

Project Manager: **Joel Lowry**
Etech Environmental & Safety Solution, Inc
P.O. Box 8469
Midland, TX 79708

Reference: XENCO Report No(s): **646597**
New Mexico BW-BW
Project Address: Rural Chavez

Joel Lowry:

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) 646597. 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. 646597 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.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 646597

Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP 1 @ Surf	S	12-10-19 00:00		646597-001
SP 1 @ 2'	S	12-10-19 00:00	2 ft	646597-002
SP 2 @ Surf	S	12-10-19 00:00		646597-003
SP 2 @ 1'	S	12-10-19 00:00	1 ft	646597-004
SP 2 @ 2'	S	12-10-19 00:00	2 ft	646597-005
SP 3 @ Surf	S	12-10-19 00:00		646597-006
SP 3 @ 2'	S	12-10-19 00:00	2 ft	646597-007
SP 4 @ Surf	S	12-10-19 00:00		646597-008
SP 4 @ 2'	S	12-10-19 00:00	2 ft	646597-009
NH1 @ Surf	S	12-10-19 00:00		646597-010
NH1 @ 2'	S	12-10-19 00:00	2 ft	646597-011
NH2 @ Surf	S	12-10-19 00:00		646597-012
NH2 @ 2'	S	12-10-19 00:00	2 ft	646597-013
EH1 @ Surf	S	12-10-19 00:00		646597-014
EH1 @ 2'	S	12-10-19 00:00	2 ft	646597-015
EH2 @ Surf	S	12-10-19 00:00		646597-016
EH2 @ 2'	S	12-10-19 00:00	2 ft	646597-017
EH3 @ Surf	S	12-10-19 00:00		646597-018
EH3 @ 2'	S	12-10-19 00:00	2 ft	646597-019
EH4 @ Surf	S	12-10-19 00:00		646597-020
EH4 @ 2'	S	12-10-19 00:00	2 ft	646597-021
EH5 @ Surf	S	12-10-19 00:00		646597-022
EH5 @ 2'	S	12-10-19 00:00	2 ft	646597-023
EH6 @ Surf	S	12-10-19 00:00		646597-024
EH6 @ 2'	S	12-10-19 00:00	2 ft	646597-025
SH1 @ Surf	S	12-10-19 00:00		646597-026
SH1 @ 2'	S	12-10-19 00:00	2 ft	646597-027
SH2 @ Surf	S	12-10-19 00:00		646597-028
SH2 @ 2'	S	12-10-19 00:00	2 ft	646597-029
SH3 @ Surf	S	12-10-19 00:00		646597-030
SH3 @ 2'	S	12-10-19 00:00	2 ft	646597-031
WH1 @ Surf	S	12-10-19 00:00		646597-032
WH1 @ 2'	S	12-10-19 00:00	2 ft	646597-033
WH2 @ Surf	S	12-10-19 00:00		646597-034
WH2 @ 2'	S	12-10-19 00:00	2 ft	646597-035
WH3 @ Surf	S	12-10-19 00:00		646597-036
WH3 @ 2'	S	12-10-19 00:00	2 ft	646597-037
WH4 @ Surf	S	12-10-19 00:00		646597-038
WH4 @ 2'	S	12-10-19 00:00	2 ft	646597-039
WH5 @ Surf	S	12-10-19 00:00		646597-040
WH5 @ 2'	S	12-10-19 00:00	2 ft	646597-041
WH6 @ Surf	S	12-10-19 00:00		646597-042
WH6 @ 2'	S	12-10-19 00:00	2 ft	646597-043



Sample Cross Reference 646597

Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

SP 1@1'

S

12-10-19 00:00

1 ft

646597-044

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: New Mexico BW-BW**Project ID: 11573
Work Order Number(s): 646597Report Date: 23-DEC-19
Date Received: 12/17/2019**Sample receipt non conformances and comments:**

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3111021 BTEX by EPA 8021B

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

Lab Sample ID 646597-001 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 and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 646597-001, -002, -003, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.

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

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

Samples affected are: 646597-001 SD, 646597-002.

Batch: LBA-3111036 Chloride by EPA 300

Lab Sample ID 646597-015 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: 646597-005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024.

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

Batch: LBA-3111043 Chloride by EPA 300

Chloride recovered above QC limits in the Blank Spike and Duplicate indicating a potential high bias.

Samples in the analytical batch are: 646597-025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035, -036, -037, -038, -039, -040, -041, -042, -043, -044. Data is acceptable due to ms/msd injections passing and all ccv are passing.

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: New Mexico BW-BW**

Project ID: 11573
Work Order Number(s): 646597

Report Date: 23-DEC-19
Date Received: 12/17/2019

Batch: LBA-3111107 BTEX by EPA 8021B

Lab Sample ID 646597-021 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: 646597-021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033, -034, -035, -036, -037, -038, -039, -040.

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

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

Batch: LBA-3111356 BTEX by EPA 8021B

Lab Sample ID 646597-041 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, 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: 646597-041, -042, -043, -044.

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

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



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX



Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	646597-001	646597-002	646597-003	646597-004	646597-005	646597-006
	<i>Field Id:</i>	SP 1 @ Surf	SP 1 @ 2'	SP 2 @ Surf	SP 2 @ 1'	SP 2 @ 2'	SP 3 @ Surf
	<i>Depth:</i>		2- ft		1- ft	2- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15		Dec-18-19 11:15	Dec-18-19 11:15
	<i>Analyzed:</i>	Dec-18-19 14:24	Dec-18-19 14:44	Dec-18-19 15:04		Dec-18-19 15:44	Dec-18-19 16:04
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL		mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202		<0.00199 0.00199	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00202 0.00202		<0.00199 0.00199	<0.00198 0.00198
Ethylbenzene		0.00526 0.00199	<0.00199 0.00199	<0.00202 0.00202		<0.00199 0.00199	<0.00198 0.00198
m,p-Xylenes		0.00484 0.00398	<0.00398 0.00398	<0.00404 0.00404		<0.00398 0.00398	<0.00396 0.00396
o-Xylene		0.00258 0.00199	<0.00199 0.00199	<0.00202 0.00202		<0.00199 0.00199	<0.00198 0.00198
Total Xylenes		0.00742 0.00199	<0.00199 0.00199	<0.00202 0.00202		<0.00199 0.00199	<0.00198 0.00198
Total BTEX		0.0127 0.00199	<0.00199 0.00199	<0.00202 0.00202		<0.00199 0.00199	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Dec-18-19 09:20	Dec-18-19 09:20	Dec-18-19 09:20	Dec-18-19 09:20	Dec-18-19 10:00	Dec-18-19 10:00
	<i>Analyzed:</i>	Dec-18-19 14:21	Dec-18-19 14:26	Dec-18-19 14:31	Dec-18-19 14:37	Dec-18-19 10:13	Dec-18-19 10:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		6500 49.7	48.5 5.01	3410 24.9	108 4.99	14.3 5.00	5660 50.3
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00		Dec-18-19 09:00	Dec-18-19 09:00
	<i>Analyzed:</i>	Dec-18-19 11:33	Dec-18-19 10:29	Dec-19-19 09:36		Dec-18-19 12:15	Dec-19-19 09:57
	<i>Units/RL:</i>	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	<49.9 49.9		<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		573 49.9	<50.0 50.0	3070 49.9		<50.0 50.0	498 50.0
Motor Oil Range Hydrocarbons (MRO)		72.8 49.9	<50.0 50.0	644 49.9		<50.0 50.0	162 50.0
Total TPH		646 49.9	<50.0 50.0	3710 49.9		<50.0 50.0	660 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX



Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	646597-007	646597-008	646597-009	646597-010	646597-011	646597-012
	<i>Field Id:</i>	SP 3 @ 2'	SP 4 @ Surf	SP 4 @ 2'	NH1 @ Surf	NH1 @ 2'	NH2 @ Surf
	<i>Depth:</i>	2- ft		2- ft		2- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15
	<i>Analyzed:</i>	Dec-18-19 16:24	Dec-18-19 16:45	Dec-18-19 17:05	Dec-18-19 17:25	Dec-18-19 18:44	Dec-18-19 19:04
	<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	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00402 0.00402	<0.00402 0.00402	<0.00397 0.00397	<0.00396 0.00396	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00201 0.00201	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00
	<i>Analyzed:</i>	Dec-18-19 10:39	Dec-18-19 10:46	Dec-18-19 10:53	Dec-18-19 11:13	Dec-18-19 11:19	Dec-18-19 11:26
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1460 5.04	1340 4.96	556 5.01	22.0 5.00	68.0 5.04	9.95 5.03
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00
	<i>Analyzed:</i>	Dec-18-19 12:58	Dec-18-19 13:18	Dec-18-19 13:40	Dec-18-19 10:18	Dec-18-19 14:22	Dec-18-19 15:03
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		107 49.9	<49.9 49.9	<49.8 49.8	252 50.0	92.8 50.0	61.2 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH		107 49.9	<49.9 49.9	<49.8 49.8	252 50.0	92.8 50.0	61.2 50.0

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	646597-013	646597-014	646597-015	646597-016	646597-017	646597-018
	<i>Field Id:</i>	NH2 @ 2'	EH1 @ Surf	EH1 @ 2'	EH2 @ Surf	EH2 @ 2'	EH3 @ Surf
	<i>Depth:</i>	2- ft		2- ft		2- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:15
	<i>Analyzed:</i>	Dec-18-19 19:24	Dec-18-19 19:44	Dec-18-19 20:05	Dec-18-19 20:25	Dec-18-19 20:45	Dec-18-19 21:05
	<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	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes		<0.00400 0.00400	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00
	<i>Analyzed:</i>	Dec-18-19 11:33	Dec-18-19 11:39	Dec-18-19 11:46	Dec-18-19 12:06	Dec-18-19 12:12	Dec-18-19 12:32
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5.86 5.02	<5.00 5.00	<4.96 4.96	13.6 5.03	21.6 4.99	<5.02 5.02
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00
	<i>Analyzed:</i>	Dec-18-19 15:24	Dec-18-19 15:45	Dec-18-19 16:06	Dec-18-19 16:27	Dec-18-19 16:48	Dec-18-19 17:09
	<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	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<49.8 49.8	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total TPH		<49.8 49.8	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.8 49.8

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX



Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	646597-019	646597-020	646597-021	646597-022	646597-023	646597-024
	<i>Field Id:</i>	EH3 @ 2'	EH4 @ Surf	EH4 @ 2'	EH5 @ Surf	EH5 @ 2'	EH6 @ Surf
	<i>Depth:</i>	2- ft		2- ft		2- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-18-19 11:15	Dec-18-19 11:15	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30
	<i>Analyzed:</i>	Dec-18-19 21:25	Dec-18-19 21:45	Dec-19-19 04:17	Dec-19-19 04:37	Dec-19-19 04:58	Dec-19-19 05:18
	<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	<0.00198 0.00198	<0.0103 0.0103	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00202 0.00202	<0.00198 0.00198	<0.0103 0.0103	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00202 0.00202	<0.00198 0.00198	<0.0103 0.0103	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00404 0.00404	<0.00397 0.00397	<0.0206 0.0206	<0.00399 0.00399	<0.00401 0.00401	<0.00402 0.00402
o-Xylene		<0.00202 0.00202	<0.00198 0.00198	<0.0103 0.0103	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00202 0.00202	<0.00198 0.00198	<0.0103 0.0103	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00202 0.00202	<0.00198 0.00198	<0.0103 0.0103	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00	Dec-18-19 10:00
	<i>Analyzed:</i>	Dec-18-19 12:39	Dec-18-19 12:46	Dec-18-19 12:52	Dec-18-19 12:59	Dec-18-19 13:06	Dec-18-19 13:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.95 4.95	<5.04 5.04	16.9 4.98	10.5 5.00	<4.95 4.95	<5.02 5.02
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00
	<i>Analyzed:</i>	Dec-18-19 17:30	Dec-18-19 17:52	Dec-18-19 18:12	Dec-18-19 19:57	Dec-18-19 21:01	Dec-18-19 21:22
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	646597-025	646597-026	646597-027	646597-028	646597-029	646597-030
	<i>Field Id:</i>	EH6 @ 2'	SH1 @ Surf	SH1 @ 2'	SH2 @ Surf	SH2 @ 2'	SH3 @ Surf
	<i>Depth:</i>	2- ft		2- ft		2- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30
	<i>Analyzed:</i>	Dec-19-19 05:39	Dec-19-19 05:59	Dec-19-19 06:19	Dec-19-19 06:40	Dec-19-19 07:00	Dec-19-19 07:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00400 0.00400	<0.00401 0.00401	<0.00397 0.00397	<0.00401 0.00401	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20
	<i>Analyzed:</i>	Dec-18-19 13:52	Dec-18-19 14:12	Dec-18-19 14:19	Dec-18-19 14:25	Dec-18-19 14:32	Dec-18-19 14:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		27.7 4.99	37.2 5.02	13.2 4.97	14.4 4.98	205 4.98	<5.02 5.02
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00
	<i>Analyzed:</i>	Dec-18-19 21:43	Dec-18-19 22:03	Dec-18-19 22:24	Dec-18-19 22:45	Dec-18-19 23:06	Dec-18-19 23:27
	<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	<250 250	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	269 250	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<250 250	<50.0 50.0
Total TPH		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	269 250	<50.0 50.0

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX



Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	646597-031	646597-032	646597-033	646597-034	646597-035	646597-036
	<i>Field Id:</i>	SH3 @ 2'	WH1 @ Surf	WH1 @ 2'	WH2 @ Surf	WH2 @ 2'	WH3 @ Surf
	<i>Depth:</i>	2- ft		2- ft		2- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30
	<i>Analyzed:</i>	Dec-19-19 09:58	Dec-19-19 10:18	Dec-19-19 10:39	Dec-19-19 10:59	Dec-19-19 11:19	Dec-19-19 11:40
	<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	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	0.00267 0.00198
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00397 0.00397	<0.00404 0.00404	<0.00403 0.00403	<0.00400 0.00400	<0.00400 0.00400	<0.00396 0.00396
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	0.00267 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20
	<i>Analyzed:</i>	Dec-18-19 14:59	Dec-18-19 15:05	Dec-18-19 15:12	Dec-18-19 15:18	Dec-18-19 15:25	Dec-18-19 15:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.98 4.98	154 5.01	320 5.00	<5.03 5.03	<5.05 5.05	<5.03 5.03
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00
	<i>Analyzed:</i>	Dec-18-19 23:48	Dec-19-19 00:30	Dec-19-19 00:51	Dec-19-19 01:12	Dec-19-19 01:33	Dec-19-19 01:54
	<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)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	53.1 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Total TPH		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	53.1 49.9

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX



Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	646597-037	646597-038	646597-039	646597-040	646597-041	646597-042
	<i>Field Id:</i>	WH3 @ 2'	WH4 @ Surf	WH4 @ 2'	WH5 @ Surf	WH5 @ 2'	WH6 @ Surf
	<i>Depth:</i>	2- ft		2- ft		2- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00	Dec-10-19 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-18-19 11:30	Dec-19-19 16:00	Dec-19-19 16:00
	<i>Analyzed:</i>	Dec-19-19 12:00	Dec-19-19 12:21	Dec-19-19 12:41	Dec-19-19 13:01	Dec-21-19 08:14	Dec-21-19 08:34
	<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	<1.00 1.00	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00200 0.00200	<1.00 1.00	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<1.00 1.00	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00400 0.00400	<2.00 2.00	<0.00398 0.00398	<0.00402 0.00402	<0.00399 0.00399	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<1.00 1.00	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<1.00 1.00	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<1.00 1.00	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20	Dec-18-19 10:20
	<i>Analyzed:</i>	Dec-18-19 15:52	Dec-18-19 16:12	Dec-18-19 16:18	Dec-18-19 16:25	Dec-18-19 16:32	Dec-18-19 16:38
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.96 4.96	<4.99 4.99	<5.01 5.01	<5.04 5.04	93.1 5.00	9.07 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-18-19 09:00	Dec-17-19 17:00
	<i>Analyzed:</i>	Dec-19-19 02:15	Dec-19-19 02:36	Dec-19-19 02:58	Dec-19-19 03:19	Dec-19-19 03:40	Dec-18-19 05:09
	<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	<49.9 49.9	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.9 49.9	56.2 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.9 49.9	<50.0 50.0
Total TPH		<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.9 49.9	56.2 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Assistant



Certificate of Analysis Summary 646597

Etech Environmental & Safety Solution, Inc, Midland, TX



Project Name: New Mexico BW-BW

Project Id: 11573
Contact: Joel Lowry
Project Location: Rural Chavez

Date Received in Lab: Tue Dec-17-19 12:45 pm
Report Date: 23-DEC-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	646597-043	646597-044				
	Field Id:	WH6 @ 2'	SP 1@1'				
	Depth:	2- ft	1- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Dec-10-19 00:00	Dec-10-19 00:00				
BTEX by EPA 8021B	Extracted:	Dec-19-19 16:00	Dec-19-19 16:00				
	Analyzed:	Dec-21-19 08:54	Dec-21-19 09:14				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00201 0.00201	<0.00200 0.00200				
Toluene		<0.00201 0.00201	<0.00200 0.00200				
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200				
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399				
o-Xylene		<0.00201 0.00201	<0.00200 0.00200				
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200				
Total BTEX		<0.00201 0.00201	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	Dec-18-19 10:20	Dec-18-19 10:20				
	Analyzed:	Dec-18-19 16:45	Dec-18-19 16:51				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		71.6 5.03	18.9 5.00				
TPH By SW8015 Mod	Extracted:	** ** *	Dec-18-19 08:00				
	Analyzed:	Dec-18-19 06:13	Dec-19-19 03:40				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9				
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9				
Total TPH		<50.0 50.0	<49.9 49.9				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Version: 1.0%

Jessica Kramer
Project Assistant



Certificate of Analytical Results 646597

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-001

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 09.20

Basis: Wet Weight

Seq Number: 3111040

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6500	49.7	mg/kg	12.18.19 14.21		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 11.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	573	49.9	mg/kg	12.18.19 11.33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	72.8	49.9	mg/kg	12.18.19 11.33		1
Total TPH	PHC635	646	49.9	mg/kg	12.18.19 11.33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.18.19 11.33	
o-Terphenyl	84-15-1	103	%	70-135	12.18.19 11.33	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-001

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.18.19 14.24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.18.19 14.24	U	1
Ethylbenzene	100-41-4	0.00526	0.00199	mg/kg	12.18.19 14.24		1
m,p-Xylenes	179601-23-1	0.00484	0.00398	mg/kg	12.18.19 14.24		1
o-Xylene	95-47-6	0.00258	0.00199	mg/kg	12.18.19 14.24		1
Total Xylenes	1330-20-7	0.00742	0.00199	mg/kg	12.18.19 14.24		1
Total BTEX		0.0127	0.00199	mg/kg	12.18.19 14.24		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	80	%	70-130	12.18.19 14.24		
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.18.19 14.24		



Certificate of Analytical Results 646597

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 1 @ 2'**
Lab Sample Id: 646597-002

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111040

Date Prep: 12.18.19 09.20

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.5	5.01	mg/kg	12.18.19 14.26		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111143

Date Prep: 12.18.19 09.00

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	12.18.19 10.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 10.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 10.29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 10.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.18.19 10.29	
o-Terphenyl	84-15-1	94	%	70-135	12.18.19 10.29	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 1 @ 2'**
Lab Sample Id: 646597-002

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.18.19 14.44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.18.19 14.44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.18.19 14.44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.18.19 14.44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.18.19 14.44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.18.19 14.44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.18.19 14.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	70-130	12.18.19 14.44		
4-Bromofluorobenzene	460-00-4	148	%	70-130	12.18.19 14.44	**	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-003

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 09.20

Basis: Wet Weight

Seq Number: 3111040

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3410	24.9	mg/kg	12.18.19 14.31		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.19 09.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	3070	49.9	mg/kg	12.19.19 09.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	644	49.9	mg/kg	12.19.19 09.36		1
Total TPH	PHC635	3710	49.9	mg/kg	12.19.19 09.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.19.19 09.36	
o-Terphenyl	84-15-1	96	%	70-135	12.19.19 09.36	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-003

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.18.19 15.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.18.19 15.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.18.19 15.04	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.18.19 15.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.18.19 15.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.18.19 15.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.18.19 15.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	88	%	70-130	12.18.19 15.04		
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.18.19 15.04		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BW

Sample Id: SP 2 @ 1'

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-004

Date Collected: 12.10.19 00.00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 09.20

Basis: Wet Weight

Seq Number: 3111040

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	108	4.99	mg/kg	12.18.19 14.37		1



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **SP 2 @ 2'**
Lab Sample Id: 646597-005

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111036

Date Prep: 12.18.19 10.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.3	5.00	mg/kg	12.18.19 10.13		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111143

Date Prep: 12.18.19 09.00

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	12.18.19 12.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 12.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 12.15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 12.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.18.19 12.15	
o-Terphenyl	84-15-1	97	%	70-135	12.18.19 12.15	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 2 @ 2'**
Lab Sample Id: 646597-005

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.18.19 15.44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.18.19 15.44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.18.19 15.44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.18.19 15.44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.18.19 15.44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.18.19 15.44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.18.19 15.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.18.19 15.44		
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.18.19 15.44		



Certificate of Analytical Results 646597

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 3 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-006

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5660	50.3	mg/kg	12.18.19 10.33		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.19 09.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	498	50.0	mg/kg	12.19.19 09.57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	162	50.0	mg/kg	12.19.19 09.57		1
Total TPH	PHC635	660	50.0	mg/kg	12.19.19 09.57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	12.19.19 09.57	
o-Terphenyl	84-15-1	100	%	70-135	12.19.19 09.57	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 3 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-006

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.18.19 16.04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.18.19 16.04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.18.19 16.04	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.18.19 16.04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.18.19 16.04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.18.19 16.04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.18.19 16.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	12.18.19 16.04		
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.18.19 16.04		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 3 @ 2'** Matrix: Soil Date Received: 12.17.19 12.45
 Lab Sample Id: 646597-007 Date Collected: 12.10.19 00.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.18.19 10.00 Basis: Wet Weight
 Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1460	5.04	mg/kg	12.18.19 10.39		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.18.19 09.00 Basis: Wet Weight
 Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 12.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	107	49.9	mg/kg	12.18.19 12.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 12.58	U	1
Total TPH	PHC635	107	49.9	mg/kg	12.18.19 12.58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.18.19 12.58	
o-Terphenyl	84-15-1	95	%	70-135	12.18.19 12.58	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 3 @ 2'**
Lab Sample Id: 646597-007

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.18.19 16.24	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.18.19 16.24	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.18.19 16.24	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.18.19 16.24	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.18.19 16.24	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.18.19 16.24	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.18.19 16.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.18.19 16.24		
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.18.19 16.24		



Certificate of Analytical Results 646597

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 4 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-008

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1340	4.96	mg/kg	12.18.19 10.46		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 13.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 13.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 13.18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 13.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	90	%	70-135	12.18.19 13.18		
o-Terphenyl	84-15-1	88	%	70-135	12.18.19 13.18		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 4 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-008

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.18.19 16.45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.18.19 16.45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.18.19 16.45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.18.19 16.45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.18.19 16.45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.18.19 16.45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.18.19 16.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.18.19 16.45		
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.18.19 16.45		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 4 @ 2'**
Lab Sample Id: 646597-009

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111036

Date Prep: 12.18.19 10.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	556	5.01	mg/kg	12.18.19 10.53		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111143

Date Prep: 12.18.19 09.00

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	12.18.19 13.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.18.19 13.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.18.19 13.40	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.18.19 13.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	89	%	70-135	12.18.19 13.40		
o-Terphenyl	84-15-1	88	%	70-135	12.18.19 13.40		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 4 @ 2'**
Lab Sample Id: 646597-009

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.18.19 17.05	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.18.19 17.05	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.18.19 17.05	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.18.19 17.05	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.18.19 17.05	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.18.19 17.05	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.18.19 17.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.18.19 17.05		
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.18.19 17.05		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **NH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-010

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	22.0	5.00	mg/kg	12.18.19 11.13		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.19 10.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	252	50.0	mg/kg	12.19.19 10.18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.19.19 10.18	U	1
Total TPH	PHC635	252	50.0	mg/kg	12.19.19 10.18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	12.19.19 10.18	
o-Terphenyl	84-15-1	82	%	70-135	12.19.19 10.18	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **NH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-010

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.18.19 17.25	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.18.19 17.25	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.18.19 17.25	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.18.19 17.25	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.18.19 17.25	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.18.19 17.25	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.18.19 17.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.18.19 17.25		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.18.19 17.25		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **NH1 @ 2'**
Lab Sample Id: 646597-011

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300
Tech: CHE
Analyst: CHE
Seq Number: 3111036

Date Prep: 12.18.19 10.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	68.0	5.04	mg/kg	12.18.19 11.19		1

Analytical Method: TPH By SW8015 Mod
Tech: DVM
Analyst: ARM
Seq Number: 3111143

Date Prep: 12.18.19 09.00

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	12.18.19 14.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	92.8	50.0	mg/kg	12.18.19 14.22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 14.22	U	1
Total TPH	PHC635	92.8	50.0	mg/kg	12.18.19 14.22		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	89	%	70-135	12.18.19 14.22		
o-Terphenyl	84-15-1	87	%	70-135	12.18.19 14.22		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **NH1 @ 2'**
Lab Sample Id: 646597-011

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.18.19 18.44	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.18.19 18.44	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.18.19 18.44	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.18.19 18.44	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.18.19 18.44	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.18.19 18.44	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.18.19 18.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.18.19 18.44		
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.18.19 18.44		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **NH2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-012

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.95	5.03	mg/kg	12.18.19 11.26		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.18.19 15.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.2	50.0	mg/kg	12.18.19 15.03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 15.03	U	1
Total TPH	PHC635	61.2	50.0	mg/kg	12.18.19 15.03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.18.19 15.03	
o-Terphenyl	84-15-1	85	%	70-135	12.18.19 15.03	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **NH2 @ Surf**Matrix: **Soil**

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-012

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **KTL**

% Moisture:

Analyst: **KTL**

Date Prep: 12.18.19 11.15

Basis: **Wet Weight**

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.18.19 19.04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.18.19 19.04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.18.19 19.04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.18.19 19.04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.18.19 19.04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.18.19 19.04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.18.19 19.04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.18.19 19.04		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.18.19 19.04		



Certificate of Analytical Results 646597

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **NH2 @ 2'** Matrix: **Soil** Date Received: 12.17.19 12.45
 Lab Sample Id: 646597-013 Date Collected: 12.10.19 00.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 12.18.19 10.00 Basis: **Wet Weight**
 Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.86	5.02	mg/kg	12.18.19 11.33		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 12.18.19 09.00 Basis: **Wet Weight**
 Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.18.19 15.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.18.19 15.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.18.19 15.24	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.18.19 15.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.18.19 15.24	
o-Terphenyl	84-15-1	87	%	70-135	12.18.19 15.24	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **NH2 @ 2'**
Lab Sample Id: 646597-013

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.18.19 19.24	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.18.19 19.24	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.18.19 19.24	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.18.19 19.24	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.18.19 19.24	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.18.19 19.24	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.18.19 19.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.18.19 19.24		
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.18.19 19.24		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-014

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	12.18.19 11.39	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 15.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 15.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 15.45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 15.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.18.19 15.45	
o-Terphenyl	84-15-1	85	%	70-135	12.18.19 15.45	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-014

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.18.19 19.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.18.19 19.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.18.19 19.44	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.18.19 19.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.18.19 19.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.18.19 19.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.18.19 19.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.18.19 19.44		
4-Bromofluorobenzene	460-00-4	108	%	70-130	12.18.19 19.44		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH1 @ 2'** Matrix: Soil Date Received: 12.17.19 12.45
 Lab Sample Id: 646597-015 Date Collected: 12.10.19 00.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.18.19 10.00 Basis: Wet Weight
 Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	12.18.19 11.46	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.18.19 09.00 Basis: Wet Weight
 Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 16.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 16.06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 16.06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 16.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	12.18.19 16.06	
o-Terphenyl	84-15-1	94	%	70-135	12.18.19 16.06	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH1 @ 2'**
Lab Sample Id: 646597-015

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.18.19 20.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.18.19 20.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.18.19 20.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.18.19 20.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.18.19 20.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.18.19 20.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.18.19 20.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.18.19 20.05		
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.18.19 20.05		



Certificate of Analytical Results 646597

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-016

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.6	5.03	mg/kg	12.18.19 12.06		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 16.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 16.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 16.27	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 16.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	12.18.19 16.27		
o-Terphenyl	84-15-1	86	%	70-135	12.18.19 16.27		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH2 @ Surf**Matrix: **Soil**

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-016

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **KTL**

% Moisture:

Analyst: **KTL**

Date Prep: 12.18.19 11.15

Basis: **Wet Weight**

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.18.19 20.25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.18.19 20.25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.18.19 20.25	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.18.19 20.25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.18.19 20.25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.18.19 20.25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.18.19 20.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	12.18.19 20.25		
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.18.19 20.25		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: EH2 @ 2'

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-017

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.6	4.99	mg/kg	12.18.19 12.12		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.18.19 16.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 16.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 16.48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 16.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.18.19 16.48	
o-Terphenyl	84-15-1	86	%	70-135	12.18.19 16.48	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH2 @ 2'**
Lab Sample Id: 646597-017

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.18.19 20.45	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.18.19 20.45	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.18.19 20.45	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.18.19 20.45	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.18.19 20.45	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.18.19 20.45	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.18.19 20.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.18.19 20.45		
4-Bromofluorobenzene	460-00-4	107	%	70-130	12.18.19 20.45		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: EH3 @ Surf

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-018

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	12.18.19 12.32	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.18.19 17.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.18.19 17.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.18.19 17.09	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.18.19 17.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	12.18.19 17.09	
o-Terphenyl	84-15-1	79	%	70-135	12.18.19 17.09	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH3 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-018

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.18.19 21.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.18.19 21.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.18.19 21.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.18.19 21.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.18.19 21.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.18.19 21.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.18.19 21.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.18.19 21.05		
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.18.19 21.05		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: EH3 @ 2'

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-019

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	12.18.19 12.39	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 17.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 17.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 17.30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 17.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-135	12.18.19 17.30	
o-Terphenyl	84-15-1	89	%	70-135	12.18.19 17.30	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH3 @ 2'**
Lab Sample Id: 646597-019

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.18.19 21.25	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.18.19 21.25	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.18.19 21.25	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.18.19 21.25	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.18.19 21.25	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.18.19 21.25	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.18.19 21.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	12.18.19 21.25		
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.18.19 21.25		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH4 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-020

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	12.18.19 12.46	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111143

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.18.19 17.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.18.19 17.52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.18.19 17.52	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.18.19 17.52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-135	12.18.19 17.52	
o-Terphenyl	84-15-1	78	%	70-135	12.18.19 17.52	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH4 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-020

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.15

Basis: Wet Weight

Seq Number: 3111021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.18.19 21.45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.18.19 21.45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.18.19 21.45	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.18.19 21.45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.18.19 21.45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.18.19 21.45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.18.19 21.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.18.19 21.45		
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.18.19 21.45		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH4 @ 2'**
Lab Sample Id: 646597-021

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111036

Date Prep: 12.18.19 10.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.9	4.98	mg/kg	12.18.19 12.52		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111143

Date Prep: 12.18.19 09.00

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	12.18.19 18.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 18.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 18.12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 18.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	12.18.19 18.12		
o-Terphenyl	84-15-1	87	%	70-135	12.18.19 18.12		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH4 @ 2'**
Lab Sample Id: 646597-021

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0103	0.0103	mg/kg	12.19.19 04.17	U	1
Toluene	108-88-3	<0.0103	0.0103	mg/kg	12.19.19 04.17	U	1
Ethylbenzene	100-41-4	<0.0103	0.0103	mg/kg	12.19.19 04.17	U	1
m,p-Xylenes	179601-23-1	<0.0206	0.0206	mg/kg	12.19.19 04.17	U	1
o-Xylene	95-47-6	<0.0103	0.0103	mg/kg	12.19.19 04.17	U	1
Total Xylenes	1330-20-7	<0.0103	0.0103	mg/kg	12.19.19 04.17	U	1
Total BTEX		<0.0103	0.0103	mg/kg	12.19.19 04.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.19.19 04.17		
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.19.19 04.17		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: EH5 @ Surf

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-022

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.5	5.00	mg/kg	12.18.19 12.59		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.18.19 19.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 19.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 19.57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 19.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	12.18.19 19.57		
o-Terphenyl	84-15-1	86	%	70-135	12.18.19 19.57		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH5 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-022

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 04.37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 04.37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 04.37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.19 04.37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 04.37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 04.37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 04.37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.19 04.37		
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.19.19 04.37		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: EH5 @ 2'
Lab Sample Id: 646597-023

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300
Tech: CHE
Analyst: CHE
Seq Number: 3111036

Date Prep: 12.18.19 10.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	12.18.19 13.06	U	1

Analytical Method: TPH By SW8015 Mod
Tech: DVM
Analyst: ARM
Seq Number: 3111144

Date Prep: 12.18.19 09.00

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	12.18.19 21.01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 21.01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 21.01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 21.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	12.18.19 21.01		
o-Terphenyl	84-15-1	86	%	70-135	12.18.19 21.01		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: EH5 @ 2'
Lab Sample Id: 646597-023

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 04.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 04.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 04.58	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.19 04.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 04.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 04.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 04.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.19.19 04.58		
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.19.19 04.58		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH6 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-024

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.00

Basis: Wet Weight

Seq Number: 3111036

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	12.18.19 13.12	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 21.22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 21.22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 21.22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 21.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	12.18.19 21.22	
o-Terphenyl	84-15-1	87	%	70-135	12.18.19 21.22	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH6 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-024

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.19 05.18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.19 05.18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.19 05.18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.19 05.18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.19 05.18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.19 05.18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.19 05.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.19.19 05.18		
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.19.19 05.18		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **EH6 @ 2'**
Lab Sample Id: 646597-025

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111043

Date Prep: 12.18.19 10.20

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.7	4.99	mg/kg	12.18.19 13.52		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111144

Date Prep: 12.18.19 09.00

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	12.18.19 21.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 21.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 21.43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 21.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.18.19 21.43	
o-Terphenyl	84-15-1	97	%	70-135	12.18.19 21.43	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **EH6 @ 2'**
Lab Sample Id: 646597-025

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 05.39	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 05.39	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 05.39	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.19 05.39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 05.39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 05.39	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 05.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.19.19 05.39		
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.19.19 05.39		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **SH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-026

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	37.2	5.02	mg/kg	12.18.19 14.12		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 22.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 22.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 22.03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 22.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.18.19 22.03	
o-Terphenyl	84-15-1	84	%	70-135	12.18.19 22.03	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-026

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 05.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 05.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 05.59	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.19 05.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 05.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 05.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 05.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.19.19 05.59		
1,4-Difluorobenzene	540-36-3	115	%	70-130	12.19.19 05.59		



Certificate of Analytical Results 646597

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH1 @ 2'** Matrix: Soil Date Received: 12.17.19 12.45
 Lab Sample Id: 646597-027 Date Collected: 12.10.19 00.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.18.19 10.20 Basis: Wet Weight
 Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.2	4.97	mg/kg	12.18.19 14.19		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.18.19 09.00 Basis: Wet Weight
 Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.18.19 22.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 22.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 22.24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 22.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.18.19 22.24	
o-Terphenyl	84-15-1	85	%	70-135	12.18.19 22.24	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH1 @ 2'**
Lab Sample Id: 646597-027

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.19.19 06.19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.19.19 06.19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.19.19 06.19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.19.19 06.19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.19.19 06.19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.19.19 06.19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.19.19 06.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	12.19.19 06.19		
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.19.19 06.19		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-028

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.4	4.98	mg/kg	12.18.19 14.25		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.18.19 22.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 22.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 22.45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 22.45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.18.19 22.45	
o-Terphenyl	84-15-1	87	%	70-135	12.18.19 22.45	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-028

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 06.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 06.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 06.40	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.19.19 06.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 06.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 06.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 06.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.19.19 06.40		
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.19.19 06.40		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH2 @ 2'**
Lab Sample Id: 646597-029

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300
Tech: CHE
Analyst: CHE
Seq Number: 3111043

Date Prep: 12.18.19 10.20

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	205	4.98	mg/kg	12.18.19 14.32		1

Analytical Method: TPH By SW8015 Mod
Tech: DVM
Analyst: ARM
Seq Number: 3111144

Date Prep: 12.18.19 09.00

Prep Method: SW8015P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<250	250	mg/kg	12.18.19 23.06	U	5
Diesel Range Organics (DRO)	C10C28DRO	269	250	mg/kg	12.18.19 23.06		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<250	250	mg/kg	12.18.19 23.06	U	5
Total TPH	PHC635	269	250	mg/kg	12.18.19 23.06		5
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	88	%	70-135	12.18.19 23.06		
o-Terphenyl	84-15-1	87	%	70-135	12.18.19 23.06		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH2 @ 2'**
Lab Sample Id: 646597-029

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 07.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 07.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 07.00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.19 07.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 07.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 07.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 07.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	12.19.19 07.00		
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.19.19 07.00		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **SH3 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-030

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.02	5.02	mg/kg	12.18.19 14.52	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.18.19 23.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 23.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 23.27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 23.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.18.19 23.27	
o-Terphenyl	84-15-1	94	%	70-135	12.18.19 23.27	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH3 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-030

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 07.21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 07.21	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 07.21	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.19.19 07.21	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 07.21	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 07.21	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 07.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.19.19 07.21		
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.19.19 07.21		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: SH3 @ 2'
Lab Sample Id: 646597-031

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111043

Date Prep: 12.18.19 10.20

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	12.18.19 14.59	U	1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111144

Date Prep: 12.18.19 09.00

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	12.18.19 23.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.18.19 23.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.18.19 23.48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.18.19 23.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	12.18.19 23.48	
o-Terphenyl	84-15-1	97	%	70-135	12.18.19 23.48	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SH3 @ 2'**
Lab Sample Id: 646597-031

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.19.19 09.58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.19.19 09.58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.19.19 09.58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.19.19 09.58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.19.19 09.58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.19.19 09.58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.19.19 09.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.19.19 09.58		
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.19.19 09.58		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-032

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	5.01	mg/kg	12.18.19 15.05		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.19 00.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.19 00.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 00.30	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.19 00.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	87	%	70-135	12.19.19 00.30		
o-Terphenyl	84-15-1	86	%	70-135	12.19.19 00.30		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH1 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-032

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.19 10.18	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.19 10.18	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.19 10.18	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.19.19 10.18	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.19 10.18	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.19 10.18	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.19 10.18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.19.19 10.18		
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.19.19 10.18		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH1 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-033

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	320	5.00	mg/kg	12.18.19 15.12		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.19.19 00.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.19.19 00.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.19.19 00.51	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.19.19 00.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.19.19 00.51	
o-Terphenyl	84-15-1	85	%	70-135	12.19.19 00.51	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH1 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-033

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.19.19 10.39	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.19.19 10.39	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.19.19 10.39	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.19.19 10.39	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.19.19 10.39	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.19.19 10.39	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.19.19 10.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.19.19 10.39		
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.19.19 10.39		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **WH2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-034

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	12.18.19 15.18	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.19 01.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.19.19 01.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.19.19 01.12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.19.19 01.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.19.19 01.12	
o-Terphenyl	84-15-1	86	%	70-135	12.19.19 01.12	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH2 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-034

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 10.59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 10.59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 10.59	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.19 10.59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 10.59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 10.59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 10.59	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.19.19 10.59		
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.19.19 10.59		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH2 @ 2'**
Lab Sample Id: 646597-035

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300
Tech: CHE
Analyst: CHE
Seq Number: 3111043

Date Prep: 12.18.19 10.20

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	12.18.19 15.25	U	1

Analytical Method: TPH By SW8015 Mod
Tech: DVM
Analyst: ARM
Seq Number: 3111144

Date Prep: 12.18.19 09.00

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	12.19.19 01.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.19 01.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 01.33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.19 01.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	99	%	70-135	12.19.19 01.33		
o-Terphenyl	84-15-1	97	%	70-135	12.19.19 01.33		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH2 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-035

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 11.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 11.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 11.19	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.19 11.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 11.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 11.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 11.19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	12.19.19 11.19		
1,4-Difluorobenzene	540-36-3	114	%	70-130	12.19.19 11.19		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH3 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-036

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	12.18.19 15.45	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.19 01.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	53.1	49.9	mg/kg	12.19.19 01.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 01.54	U	1
Total TPH	PHC635	53.1	49.9	mg/kg	12.19.19 01.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	12.19.19 01.54	
o-Terphenyl	84-15-1	85	%	70-135	12.19.19 01.54	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH3 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-036

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.19.19 11.40	U	1
Toluene	108-88-3	0.00267	0.00198	mg/kg	12.19.19 11.40		1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.19.19 11.40	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.19.19 11.40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.19.19 11.40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.19.19 11.40	U	1
Total BTEX		0.00267	0.00198	mg/kg	12.19.19 11.40		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.19.19 11.40		
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.19.19 11.40		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH3 @ 2'** Matrix: Soil Date Received: 12.17.19 12.45
 Lab Sample Id: 646597-037 Date Collected: 12.10.19 00.00 Sample Depth: 2 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 12.18.19 10.20 Basis: Wet Weight
 Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	12.18.19 15.52	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 12.18.19 09.00 Basis: Wet Weight
 Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.19.19 02.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.19.19 02.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.19.19 02.15	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	12.19.19 02.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.19.19 02.15	
o-Terphenyl	84-15-1	88	%	70-135	12.19.19 02.15	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH3 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-037

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.19.19 12.00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.19.19 12.00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.19.19 12.00	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.19.19 12.00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.19.19 12.00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.19.19 12.00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.19.19 12.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.19.19 12.00		
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.19.19 12.00		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **WH4 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-038

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	12.18.19 16.12	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.19.19 02.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.19.19 02.36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.19.19 02.36	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.19.19 02.36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.19.19 02.36	
o-Terphenyl	84-15-1	87	%	70-135	12.19.19 02.36	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH4 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-038

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<1.00	1.00	mg/kg	12.19.19 12.21	U	1
Toluene	108-88-3	<1.00	1.00	mg/kg	12.19.19 12.21	U	1
Ethylbenzene	100-41-4	<1.00	1.00	mg/kg	12.19.19 12.21	U	1
m,p-Xylenes	179601-23-1	<2.00	2.00	mg/kg	12.19.19 12.21	U	1
o-Xylene	95-47-6	<1.00	1.00	mg/kg	12.19.19 12.21	U	1
Total Xylenes	1330-20-7	<1.00	1.00	mg/kg	12.19.19 12.21	U	1
Total BTEX		<1.00	1.00	mg/kg	12.19.19 12.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.19.19 12.21		
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.19.19 12.21		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH4 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-039

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	12.18.19 16.18	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.19 02.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.19 02.58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 02.58	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.19 02.58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.19.19 02.58	
o-Terphenyl	84-15-1	99	%	70-135	12.19.19 02.58	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH4 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-039

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.19.19 12.41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.19.19 12.41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.19.19 12.41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.19.19 12.41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.19.19 12.41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.19.19 12.41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.19.19 12.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.19.19 12.41		
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.19.19 12.41		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH5 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-040

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	12.18.19 16.25	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.18.19 09.00

Basis: Wet Weight

Seq Number: 3111144

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.19.19 03.19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.19 03.19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 03.19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.19 03.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-135	12.19.19 03.19	
o-Terphenyl	84-15-1	85	%	70-135	12.19.19 03.19	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH5 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-040

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.18.19 11.30

Basis: Wet Weight

Seq Number: 3111107

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.19.19 13.01	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.19.19 13.01	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.19.19 13.01	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.19.19 13.01	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.19.19 13.01	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.19.19 13.01	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.19.19 13.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.19.19 13.01		
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.19.19 13.01		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH5 @ 2'**
Lab Sample Id: 646597-041

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111043

Date Prep: 12.18.19 10.20

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	93.1	5.00	mg/kg	12.18.19 16.32		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111144

Date Prep: 12.18.19 09.00

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	12.19.19 03.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.19 03.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 03.40	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.19 03.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	87	%	70-135	12.19.19 03.40		
o-Terphenyl	84-15-1	85	%	70-135	12.19.19 03.40		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH5 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-041

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.19.19 16.00

Basis: Wet Weight

Seq Number: 3111356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.21.19 08.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.21.19 08.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.21.19 08.14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.21.19 08.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.21.19 08.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.21.19 08.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.21.19 08.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.21.19 08.14		
4-Bromofluorobenzene	460-00-4	96	%	70-130	12.21.19 08.14		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH6 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-042

Date Collected: 12.10.19 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.07	4.95	mg/kg	12.18.19 16.38		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.17.19 17.00

Basis: Wet Weight

Seq Number: 3110899

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.18.19 05.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	56.2	50.0	mg/kg	12.18.19 05.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 05.09	U	1
Total TPH	PHC635	56.2	50.0	mg/kg	12.18.19 05.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.18.19 05.09	
o-Terphenyl	84-15-1	85	%	70-135	12.18.19 05.09	



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH6 @ Surf**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-042

Date Collected: 12.10.19 00.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.19.19 16.00

Basis: Wet Weight

Seq Number: 3111356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.21.19 08.34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.21.19 08.34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.21.19 08.34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.21.19 08.34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.21.19 08.34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.21.19 08.34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.21.19 08.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	12.21.19 08.34		
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.21.19 08.34		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **WH6 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-043

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.18.19 10.20

Basis: Wet Weight

Seq Number: 3111043

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	71.6	5.03	mg/kg	12.18.19 16.45		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.17.19 12.00

Basis: Wet Weight

Seq Number: 3110895

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.18.19 06.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.18.19 06.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.18.19 06.13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.18.19 06.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	12.18.19 06.13		
o-Terphenyl	84-15-1	101	%	70-135	12.18.19 06.13		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **WH6 @ 2'**

Matrix: Soil

Date Received: 12.17.19 12.45

Lab Sample Id: 646597-043

Date Collected: 12.10.19 00.00

Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.19.19 16.00

Basis: Wet Weight

Seq Number: 3111356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.21.19 08.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.21.19 08.54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.21.19 08.54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.21.19 08.54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.21.19 08.54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.21.19 08.54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.21.19 08.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	12.21.19 08.54		
4-Bromofluorobenzene	460-00-4	93	%	70-130	12.21.19 08.54		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BW

Sample Id: **SP 1@1'**
Lab Sample Id: 646597-044

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111043

Date Prep: 12.18.19 10.20

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.9	5.00	mg/kg	12.18.19 16.51		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111076

Date Prep: 12.18.19 08.00

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	12.19.19 03.40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.19.19 03.40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.19.19 03.40	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.19.19 03.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	98	%	70-135	12.19.19 03.40		
o-Terphenyl	84-15-1	97	%	70-135	12.19.19 03.40		



Certificate of Analytical Results 646597



Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BW

Sample Id: **SP 1@1'**
Lab Sample Id: 646597-044

Matrix: Soil
Date Collected: 12.10.19 00.00

Date Received: 12.17.19 12.45
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.19.19 16.00

Basis: Wet Weight

Seq Number: 3111356

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.21.19 09.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.21.19 09.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.21.19 09.14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.21.19 09.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.21.19 09.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.21.19 09.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.21.19 09.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	84	%	70-130	12.21.19 09.14		
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.21.19 09.14		



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



Etech Environmental & Safety Solution, Inc
New Mexico BW-BW

Analytical Method: Chloride by EPA 300

Seq Number: 3111040

MB Sample Id: 7692725-1-BLK

Matrix: Solid

LCS Sample Id: 7692725-1-BKS

Prep Method: E300P

Date Prep: 12.18.19

LCSD Sample Id: 7692725-1-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	250	100	249	100	90-110	0	20	mg/kg	12.18.19 12:06	

Analytical Method: Chloride by EPA 300

Seq Number: 3111036

MB Sample Id: 7692727-1-BLK

Matrix: Solid

LCS Sample Id: 7692727-1-BKS

Prep Method: E300P

Date Prep: 12.18.19

LCSD Sample Id: 7692727-1-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	258	103	255	102	90-110	1	20	mg/kg	12.18.19 09:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3111043

MB Sample Id: 7692728-1-BLK

Matrix: Solid

LCS Sample Id: 7692728-1-BKS

Prep Method: E300P

Date Prep: 12.18.19

LCSD Sample Id: 7692728-1-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	292	117	280	112	90-110	4	20	mg/kg	12.18.19 13:39	H

Analytical Method: Chloride by EPA 300

Seq Number: 3111040

Parent Sample Id: 646540-011

Matrix: Soil

MS Sample Id: 646540-011 S

Prep Method: E300P

Date Prep: 12.18.19

MSD Sample Id: 646540-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.20	249	250	100	247	98	90-110	1	20	mg/kg	12.18.19 12:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3111040

Parent Sample Id: 646545-001

Matrix: Soil

MS Sample Id: 646545-001 S

Prep Method: E300P

Date Prep: 12.18.19

MSD Sample Id: 646545-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	463	252	680	86	666	81	90-110	2	20	mg/kg	12.18.19 13:34	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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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



Etech Environmental & Safety Solution, Inc
New Mexico BW-BW

Analytical Method: Chloride by EPA 300

Seq Number: 3111036

Parent Sample Id: 646597-005

Matrix: Soil

MS Sample Id: 646597-005 S

Prep Method: E300P

Date Prep: 12.18.19

MSD Sample Id: 646597-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	14.3	250	291	111	291	111	90-110	0	20	mg/kg	12.18.19 10:19	X

Analytical Method: Chloride by EPA 300

Seq Number: 3111036

Parent Sample Id: 646597-015

Matrix: Soil

MS Sample Id: 646597-015 S

Prep Method: E300P

Date Prep: 12.18.19

MSD Sample Id: 646597-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2.59	248	251	100	248	99	90-110	1	20	mg/kg	12.18.19 11:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3111043

Parent Sample Id: 646597-025

Matrix: Soil

MS Sample Id: 646597-025 S

Prep Method: E300P

Date Prep: 12.18.19

MSD Sample Id: 646597-025 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.7	250	288	104	287	104	90-110	0	20	mg/kg	12.18.19 13:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3111043

Parent Sample Id: 646597-035

Matrix: Soil

MS Sample Id: 646597-035 S

Prep Method: E300P

Date Prep: 12.18.19

MSD Sample Id: 646597-035 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.16	253	262	102	262	102	90-110	0	20	mg/kg	12.18.19 15:32	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3110899

MB Sample Id: 7692683-1-BLK

Matrix: Solid

LCS Sample Id: 7692683-1-BKS

Prep Method: SW8015P

Date Prep: 12.17.19

LCSD Sample Id: 7692683-1-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	896	90	895	90	70-135	0	20	mg/kg	12.17.19 21:49	
Diesel Range Organics (DRO)	<15.0	1000	916	92	914	91	70-135	0	20	mg/kg	12.17.19 21:49	

Surrogate

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		99		93		70-135	%	12.17.19 21:49
o-Terphenyl	89		90		90		70-135	%	12.17.19 21:49

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
New Mexico BW-BW

Analytical Method: TPH By SW8015 Mod

Seq Number: 3110895

MB Sample Id: 7692685-1-BLK

Matrix: Solid

LCS Sample Id: 7692685-1-BKS

Prep Method: SW8015P

Date Prep: 12.17.19

LCSD Sample Id: 7692685-1-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	1000	100	1000	100	70-135	0	20	mg/kg	12.17.19 21:49	
Diesel Range Organics (DRO)	<15.0	1000	1030	103	1030	103	70-135	0	20	mg/kg	12.17.19 21:49	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	104		104		105		70-135	%	12.17.19 21:49			
o-Terphenyl	103		101		107		70-135	%	12.17.19 21:49			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111076

MB Sample Id: 7692691-1-BLK

Matrix: Solid

LCS Sample Id: 7692691-1-BKS

Prep Method: SW8015P

Date Prep: 12.18.19

LCSD Sample Id: 7692691-1-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	998	100	996	100	70-135	0	20	mg/kg	12.18.19 19:15	
Diesel Range Organics (DRO)	<15.0	1000	1050	105	1040	104	70-135	1	20	mg/kg	12.18.19 19:15	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	104		106		106		70-135	%	12.18.19 19:15			
o-Terphenyl	106		104		103		70-135	%	12.18.19 19:15			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111143

MB Sample Id: 7692692-1-BLK

Matrix: Solid

LCS Sample Id: 7692692-1-BKS

Prep Method: SW8015P

Date Prep: 12.18.19

LCSD Sample Id: 7692692-1-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	954	95	868	87	70-135	9	20	mg/kg	12.18.19 09:47	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	878	88	70-135	14	20	mg/kg	12.18.19 09:47	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	88		101		97		70-135	%	12.18.19 09:47			
o-Terphenyl	90		97		86		70-135	%	12.18.19 09:47			

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

New Mexico BW-BW

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111144

MB Sample Id: 7692693-1-BLK

Matrix: Solid

LCS Sample Id: 7692693-1-BKS

Prep Method: SW8015P

Date Prep: 12.18.19

LCSD Sample Id: 7692693-1-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	971	97	983	98	70-135	1	20	mg/kg	12.18.19 19:15	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	1040	104	70-135	2	20	mg/kg	12.18.19 19:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		104		105		70-135	%	12.18.19 19:15
o-Terphenyl	90		101		102		70-135	%	12.18.19 19:15

Analytical Method: TPH By SW8015 Mod

Seq Number: 3110899

Matrix: Solid

MB Sample Id: 7692683-1-BLK

Prep Method: SW8015P

Date Prep: 12.17.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.17.19 21:28	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3110895

Matrix: Solid

MB Sample Id: 7692685-1-BLK

Prep Method: SW8015P

Date Prep: 12.17.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.17.19 21:28	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111076

Matrix: Solid

MB Sample Id: 7692691-1-BLK

Prep Method: SW8015P

Date Prep: 12.18.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.18.19 18:54	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111143

Matrix: Solid

MB Sample Id: 7692692-1-BLK

Prep Method: SW8015P

Date Prep: 12.18.19

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.18.19 09:26	

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

New Mexico BW-BW

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111144

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.18.19

MB Sample Id: 7692693-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.18.19 18:54	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3110899

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.17.19

Parent Sample Id: 646532-021

MS Sample Id: 646532-021 S

MSD Sample Id: 646532-021 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	826	83	836	84	70-135	1	20	mg/kg	12.17.19 22:51	
Diesel Range Organics (DRO)	<15.0	998	865	87	872	87	70-135	1	20	mg/kg	12.17.19 22:51	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		91		70-135	%	12.17.19 22:51
o-Terphenyl	85		85		70-135	%	12.17.19 22:51

Analytical Method: TPH By SW8015 Mod

Seq Number: 3110895

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.17.19

Parent Sample Id: 646526-021

MS Sample Id: 646526-021 S

MSD Sample Id: 646526-021 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)	15.5	997	958	95	952	94	70-135	1	20	mg/kg	12.17.19 22:51	
Diesel Range Organics (DRO)	390	997	1370	98	1390	100	70-135	1	20	mg/kg	12.17.19 22:51	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		119		70-135	%	12.17.19 22:51
o-Terphenyl	87		88		70-135	%	12.17.19 22:51

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111076

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.18.19

Parent Sample Id: 646599-001

MS Sample Id: 646599-001 S

MSD Sample Id: 646599-001 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)	41.2	998	1070	103	1030	99	70-135	4	20	mg/kg	12.18.19 20:18	
Diesel Range Organics (DRO)	274	998	1230	96	1210	94	70-135	2	20	mg/kg	12.18.19 20:18	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		109		70-135	%	12.18.19 20:18
o-Terphenyl	111		116		70-135	%	12.18.19 20:18

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



Etech Environmental & Safety Solution, Inc New Mexico BW-BW

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111143

Parent Sample Id: 646597-002

Matrix: Soil

MS Sample Id: 646597-002 S

Prep Method: SW8015P

Date Prep: 12.18.19

MSD Sample Id: 646597-002 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)	15.3	999	842	83	858	84	70-135	2	20	mg/kg	12.18.19 10:50	
Diesel Range Organics (DRO)	22.5	999	857	84	873	85	70-135	2	20	mg/kg	12.18.19 10:50	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		94		70-135	%	12.18.19 10:50
o-Terphenyl	87		87		70-135	%	12.18.19 10:50

Analytical Method: TPH By SW8015 Mod

Seq Number: 3111144

Parent Sample Id: 646597-022

Matrix: Soil

MS Sample Id: 646597-022 S

Prep Method: SW8015P

Date Prep: 12.18.19

MSD Sample Id: 646597-022 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	831	83	843	85	70-135	1	20	mg/kg	12.18.19 20:18	
Diesel Range Organics (DRO)	24.4	998	841	82	842	82	70-135	0	20	mg/kg	12.18.19 20:18	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		93		70-135	%	12.18.19 20:18
o-Terphenyl	87		89		70-135	%	12.18.19 20:18

Analytical Method: BTEX by EPA 8021B

Seq Number: 3111021

MB Sample Id: 7692709-1-BLK

Matrix: Solid

LCS Sample Id: 7692709-1-BKS

Prep Method: SW5030B

Date Prep: 12.18.19

LCSD Sample Id: 7692709-1-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	0.0994	99	0.0977	98	70-130	2	35	mg/kg	12.18.19 12:24	
Toluene	<0.000456	0.100	0.0960	96	0.0952	95	70-130	1	35	mg/kg	12.18.19 12:24	
Ethylbenzene	<0.000565	0.100	0.0940	94	0.0930	93	70-130	1	35	mg/kg	12.18.19 12:24	
m,p-Xylenes	<0.00101	0.200	0.190	95	0.188	94	70-130	1	35	mg/kg	12.18.19 12:24	
o-Xylene	<0.000344	0.100	0.0931	93	0.0934	93	70-130	0	35	mg/kg	12.18.19 12:24	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		92		93		70-130	%	12.18.19 12:24
4-Bromofluorobenzene	96		103		104		70-130	%	12.18.19 12:24

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
New Mexico BW-BW

Analytical Method: BTEX by EPA 8021B

Seq Number: 3111107

MB Sample Id: 7692715-1-BLK

Matrix: Solid

LCS Sample Id: 7692715-1-BKS

Prep Method: SW5030B

Date Prep: 12.18.19

LCSD Sample Id: 7692715-1-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	0.128	128	0.116	116	70-130	10	35	mg/kg	12.19.19 02:05	
Toluene	<0.00200	0.100	0.113	113	0.103	103	70-130	9	35	mg/kg	12.19.19 02:05	
Ethylbenzene	<0.00200	0.100	0.110	110	0.101	101	70-130	9	35	mg/kg	12.19.19 02:05	
m,p-Xylenes	<0.00400	0.200	0.222	111	0.204	102	70-130	8	35	mg/kg	12.19.19 02:05	
o-Xylene	<0.00200	0.100	0.110	110	0.102	102	70-130	8	35	mg/kg	12.19.19 02:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		113		112		70-130	%	12.19.19 02:05
4-Bromofluorobenzene	90		95		95		70-130	%	12.19.19 02:05

Analytical Method: BTEX by EPA 8021B

Seq Number: 3111356

MB Sample Id: 7692896-1-BLK

Matrix: Solid

LCS Sample Id: 7692896-1-BKS

Prep Method: SW5030B

Date Prep: 12.19.19

LCSD Sample Id: 7692896-1-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	0.0963	96	0.0906	91	70-130	6	35	mg/kg	12.21.19 06:14	
Toluene	<0.000456	0.100	0.0877	88	0.0835	84	70-130	5	35	mg/kg	12.21.19 06:14	
Ethylbenzene	<0.000565	0.100	0.0865	87	0.0827	83	70-130	4	35	mg/kg	12.21.19 06:14	
m,p-Xylenes	<0.00101	0.200	0.174	87	0.168	84	70-130	4	35	mg/kg	12.21.19 06:14	
o-Xylene	<0.000344	0.100	0.0908	91	0.0893	89	70-130	2	35	mg/kg	12.21.19 06:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	93		92		93		70-130	%	12.21.19 06:14
4-Bromofluorobenzene	91		94		99		70-130	%	12.21.19 06:14

Analytical Method: BTEX by EPA 8021B

Seq Number: 3111021

Parent Sample Id: 646597-001

Matrix: Soil

MS Sample Id: 646597-001 S

Prep Method: SW5030B

Date Prep: 12.18.19

MSD Sample Id: 646597-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000388	0.0996	0.0848	85	0.0830	82	70-130	2	35	mg/kg	12.18.19 13:04	
Toluene	0.00157	0.0996	0.0772	76	0.0818	79	70-130	6	35	mg/kg	12.18.19 13:04	
Ethylbenzene	0.00526	0.0996	0.0645	59	0.0706	65	70-130	9	35	mg/kg	12.18.19 13:04	X
m,p-Xylenes	0.00484	0.199	0.125	60	0.136	65	70-130	8	35	mg/kg	12.18.19 13:04	X
o-Xylene	0.00258	0.0996	0.0615	59	0.0672	64	70-130	9	35	mg/kg	12.18.19 13:04	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	88		84		70-130	%	12.18.19 13:04
4-Bromofluorobenzene	116		134	**	70-130	%	12.18.19 13:04

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
New Mexico BW-BW

Analytical Method: BTEX by EPA 8021B

Seq Number: 3111107

Parent Sample Id: 646597-021

Matrix: Soil

MS Sample Id: 646597-021 S

Prep Method: SW5030B

Date Prep: 12.18.19

MSD Sample Id: 646597-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.0863	86	0.0870	88	70-130	1	35	mg/kg	12.19.19 02:46	
Toluene	<0.00201	0.100	0.0715	72	0.0740	75	70-130	3	35	mg/kg	12.19.19 02:46	
Ethylbenzene	<0.00201	0.100	0.0646	65	0.0700	71	70-130	8	35	mg/kg	12.19.19 02:46	X
m,p-Xylenes	<0.00402	0.201	0.128	64	0.142	72	70-130	10	35	mg/kg	12.19.19 02:46	X
o-Xylene	<0.00201	0.100	0.0641	64	0.0711	72	70-130	10	35	mg/kg	12.19.19 02:46	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		114		70-130	%	12.19.19 02:46
4-Bromofluorobenzene	103		103		70-130	%	12.19.19 02:46

Analytical Method: BTEX by EPA 8021B

Seq Number: 3111356

Parent Sample Id: 646597-041

Matrix: Soil

MS Sample Id: 646597-041 S

Prep Method: SW5030B

Date Prep: 12.19.19

MSD Sample Id: 646597-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000384	0.0998	0.0519	52	0.0495	50	70-130	5	35	mg/kg	12.21.19 06:54	X
Toluene	0.000609	0.0998	0.0321	32	0.0316	31	70-130	2	35	mg/kg	12.21.19 06:54	X
Ethylbenzene	<0.000564	0.0998	0.0248	25	0.0243	24	70-130	2	35	mg/kg	12.21.19 06:54	X
m,p-Xylenes	<0.00101	0.200	0.0499	25	0.0477	24	70-130	5	35	mg/kg	12.21.19 06:54	X
o-Xylene	0.000389	0.0998	0.0291	29	0.0282	28	70-130	3	35	mg/kg	12.21.19 06:54	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		100		70-130	%	12.21.19 06:54
4-Bromofluorobenzene	110		106		70-130	%	12.21.19 06:54

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



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) 699-6701
 Atlanta, GA (770) 449-8800

Work Order No:

1046597

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Project Manager:	Joel Lowry	Bill to: (if different)	Endeavor Energy Resources
Company Name:	Elech Environmental	Company Name:	Endeavor Energy Resources
Address:	3100 Plains HWY	Address:	
City, State ZIP:	Livingston, NM, 88260	City, State ZIP:	
Phone:	432-466-4450	Email:	joel@elechenry.com

Program: ☐ USTR/ST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project:	
Reporting Level: ☐ Level I ☐ PST/US ☐ TRR ☐ Level II	Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	New Mexico BW-BW	Turn Around	
Project Number:	11573	Routine:	☐
Project Location:	Rural Chavez	Rush:	☐
Sample's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
	Temperature (°C):	0.5	Thermometer ID:	12
	Received intact:	Yes ☒ No ☐		
	Cooler Custody Seals:	Yes ☐ No ☒	Correction Factor:	
	Sample Custody Seals:	Yes ☐ No ☒	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST												Preservative Codes		Sample Comments	
SP 1 @ Surf.	S	12/10/2019	0	1	X	X	X											HN	HN	
SP 1 @ 2'	S	12/10/2019	2	1	X	X	X											H2SO4: H2	H2	
SP 2 @ Surf.	S	12/10/2019	0	1	X	X	X											HCL: HL	HL	
SP 2 @ 1'	S	12/10/2019	1	1	X	X	X											None: NO	NO	
SP 2 @ 2'	S	12/10/2019	2	1	X	X	X											NaOH: Na	Na	
SP 3 @ Surf.	S	12/10/2019	0	1	X	X	X											MeOH: Me	Me	
SP 3 @ 2'	S	12/10/2019	2	1	X	X	X											Zn Acetate+ NaOH: Zn	Zn	
SP 4 @ Surf.	S	12/10/2019	0	1	X	X	X											TAT starts the day received by the lab, if received by 4:30pm		
SP 4 @ 2'	S	12/10/2019	2	1	X	X	X													
NH 1 @ Surf.	S	12/10/2019		1	X	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
Joel Lowry	Eyana Castillo	12/16/19 2:55	Eyana Castillo	12/17/19	1:45



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 304-5440, El Paso, TX (915) 585-5543, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 792-7550, Carlsbad, NM (505) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6707
Atlanta, GA (770) 445-8800

Atlanta, GA (770) 449-8800

Work Order No:

Yusuf

Project Manager:	Joel Lowmy	Bill to: (if different)	Endeavor Energy Resources
Company Name:	Etech Environmental	Company Name:	Endeavor Energy Resources
Address:	3100 Plains HWY	Address:	
City, State ZIP:	Lowington, NM, 88260	City, State ZIP:	
Phone:	432-466-4450	Email:	joel@etechny.com

Work Order Comments			
Program: UST/PST	☐ PRP	☐ Brownfields	☐ RRC ☐ Superfund ☐
State of Project:			
Reporting Level	☐ Level I	☐ PST/US	☐ TRR ☐ Level II
Deliverables: EDD	☐ ADAPT	Other:	

Project Name:		New Mexico BW-BW		Turn Around		ANALYSIS REQUEST										Preservative Codes	
Project Number:		11573		Routine: ☐												HNO ₃ : HN	
Project Location		Rural Chavez		Rush: ☐												H ₂ SO ₄ : H2	
Sampler's Name:		Miguel Ramirez		Due Date:												HCL: HL	
PO #:																None: NO	
SAMPLE RECEIPT		Temp Blank:		Yes		No		Wet Ice:		Yes		No				NaOH: Na	
Temperature (°C):						Thermometer ID										MeOH: Me	
Received Inact:		Yes		No												Zn Acetate+ NaOH: Zn	
Cooler Custody Seals:		Yes		No		Correction Factor:										TAT starts the day received by the lab, if received by 4:30pm	
Sample Custody Seals:		Yes		No		Total Containers:											

[illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA TCLP / SPLP 6010:	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn 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.

G.S

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/16/14 2:55	<i>[Signature]</i>	<i>[Signature]</i>	12/17/14



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 (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

W44507

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Page 3 of 5

Project Manager:	Joel Lowry	Bill to: (if different)	Endeavor Energy Resources
Company Name:	Etech Environmental	Company Name:	Endeavor Energy Resources
Address:	3100 Plains HWY	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	432-466-4450	Email:	joel@etechenv.com

Program: ☐ PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project:	
Reporting Level: ☐ Level I ☐ Level II ☐ Level III	Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Name:	New Mexico BW-BW	Turn Around	☐
Project Number:	11573	Routine:	☐
Project Location:	Rural Chavez	Rush:	☐
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
	Temperature (°C):			Thermometer ID		
	Received Intact:	Yes	No			
	Cooler Custody Seals:	Yes	No	Correction Factor:		
Sample Custody Seals:	Yes	No	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	BTX	TPH	80	Chlorid																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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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.

0.5

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12/16/14 255	<i>[Signature]</i>	<i>[Signature]</i>	



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:

WU0507

www.xenco.com Page 4 of 5

Project Manager:	Joel Lowry	Bill to: (if different)	Endeavor Energy Resources
Company Name:	Etech Environmental	Company Name:	Endeavor Energy Resources
Address:	3100 Plains HWY	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	432-466-4450	Email:	joe@etechenv.com

Program: ☐ UST/PS ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐ State of Project:	
Reporting Level: ☐ Level I ☐ PST/US ☐ TRR ☐ Level II	Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	New Mexico BW-BW	Tum Around	☐
Project Number:	11573	Routine:	☐
Project Location:	Rural Chavez	Rush:	☐
Sample's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
	Temperature (°C):	Thermometer ID				
	Received In tact:	Yes	No			
	Cooler Custody Seals:	Yes	No	N/A	Correction Factor:	
Sample Custody Seals:	Yes	No	N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST																Preservative Codes		Sample Comments
SH 3 @ 2"	S	12/10/2019		2	1	X	X	X															
WH 1 @ Surf.	S	12/10/2019		0	1	X	X	X															
WH 1 @ 2'	S	12/10/2019		2	1	X	X	X															
WH 2 @ Surf.	S	12/10/2019		0	1	X	X	X															
WH 2 @ 2'	S	12/10/2019		2	1	X	X	X															
WH 3 @ Surf.	S	12/10/2019		0	1	X	X	X															
WH 3 @ 2'	S	12/10/2019		2	1	X	X	X															
WH 4 @ Surf.	S	12/10/2019		0	1	X	X	X															
WH 4 @ 2'	S	12/10/2019		2	1	X	X	X															
WH 5 @ Surf.	S	12/10/2019		0	1	X	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

1631 / 245.1 / 7470 / 7471 : Hg

Notes: 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.

0.5

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1. <i>Joel Lowry</i>	2. <i>Etech Environmental</i>	12/10/19 7:55	3. <i>Etech Environmental</i>	4. <i>ADP</i>	12/11
5.			6.		



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 304-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 782-7550, 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:

Yousa

Project Manager:	Joel Lowry	Bill to: (if different)	Endeavor Energy Resources
Company Name:	Etech Environmental	Company Name:	Endeavor Energy Resources
Address:	3100 Plains HWY	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	432-466-4450	Email:	joel@etecheny.com

Work Order Comments			
Program: UST/PST ☐ RRP ☐ Brownfields ☐ RRC ☐ Superfund ☐			
State of Project:			
Reporting Level	☐ Level I ☐ PST/US ☐ TRRP ☐ Level II		
Deliverables:	EDD ☐	ADAPT ☐	Other:

[illegible]

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
<i>Circle Method(s) and Metal(s) to be analyzed</i>		TCPL / 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 \$750.00 will be applied to each project and a charge of \$3 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

0.5

Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time

52	Eva Casella	12/10/14 255	Eva Casella	16722	12/17
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Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 12/17/2019 12:45:00 PM

Work Order #: 646597

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)?	.5
#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: 12/17/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/17/2019

Analytical Report 647632

for
Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

New Mexico BW-BX

03-JAN-20

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)



03-JAN-20

Project Manager: **Joel Lowry**
Etech Environmental & Safety Solution, Inc
P.O. Box 8469
Midland, TX 79708

Reference: XENCO Report No(s): **647632**
New Mexico BW-BX
Project Address: Rural Chavez

Joel Lowry:

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) 647632. 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. 647632 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 'Holly Taylor'.

Holly Taylor
Project Manager

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

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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

**Sample Cross Reference 647632****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP3 @ 3'	S	12-26-19 09:30	3	647632-001
SP3 @ 4'	S	12-26-19 10:00	4	647632-002
NH1b @ Suf.	S	12-26-19 10:30	0	647632-003
SP2 @ 2.5'-R	S	12-26-19 10:40	2.5	647632-004
SH2b @ Surf.	S	12-26-19 10:50	0	647632-005
Sh2b @ 1'	S	12-26-19 10:55	1	647632-006



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID:
Work Order Number(s): 647632

Report Date: 03-JAN-20
Date Received: 12/30/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3112135 TPH By SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 647634-002 S.



Certificate of Analytical Results

647632



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BX

Sample Id: **SP3 @ 3'** Matrix: Soil Sample Depth: 3
 Lab Sample Id: 647632-001 Date Collected: 12.26.19 09.30 Date Received: 12.30.19 11.07
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Analyst: SPC % Moist: Tech: SPC
 Seq Number: 3112072 Date Prep: 12.30.19 12.45
 Prep seq: 7693498

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	3060	25.1	4.31	mg/kg	12.30.19 16:08		5

Sample Id: **SP3 @ 4'** Matrix: Soil Sample Depth: 4
 Lab Sample Id: 647632-002 Date Collected: 12.26.19 10.00 Date Received: 12.30.19 11.07
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Analyst: SPC % Moist: Tech: SPC
 Seq Number: 3112072 Date Prep: 12.30.19 12.45
 Prep seq: 7693498

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	80.5	5.00	0.858	mg/kg	12.30.19 16:15		1

Sample Id: **NH1b @ Suf.** Matrix: Soil Sample Depth: 0
 Lab Sample Id: 647632-003 Date Collected: 12.26.19 10.30 Date Received: 12.30.19 11.07
 Analytical Method: TPH By SW8015 Mod Prep Method: 8015
 Analyst: DVM % Moist: Tech: DVM
 Seq Number: 3112135 Date Prep: 12.30.19 15.00
 Prep seq: 7693537

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	12.30.19 21:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.1	50.0	15.0	mg/kg	12.30.19 21:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	59.5	50.0	15.0	mg/kg	12.30.19 21:22		1
Total TPH	PHC635	121		15.0	mg/kg	12.30.19 21:22		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	114	70 - 135	%		
o-Terphenyl	116	70 - 135	%		



Certificate of Analytical Results

647632



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BX

Sample Id: **SP2 @ 2.5'-R** Matrix: Soil Sample Depth: 2.5
 Lab Sample Id: 647632-004 Date Collected: 12.26.19 10.40 Date Received: 12.30.19 11.07
 Analytical Method: TPH By SW8015 Mod Prep Method: 8015
 Analyst: DVM % Moist: Tech: DVM
 Seq Number: 3112135 Date Prep: 12.30.19 15.00
 Prep seq: 7693537

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	12.30.19 21:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	50.0	50.0	15.0	mg/kg	12.30.19 21:43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	12.30.19 21:43	U	1
Total TPH	PHC635	50.0		15.0	mg/kg	12.30.19 21:43		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	113	70 - 135	%		
o-Terphenyl	115	70 - 135	%		

Sample Id: **SH2b @ Surf.** Matrix: Soil Sample Depth: 0
 Lab Sample Id: 647632-005 Date Collected: 12.26.19 10.50 Date Received: 12.30.19 11.07
 Analytical Method: TPH By SW8015 Mod Prep Method: 8015
 Analyst: DVM % Moist: Tech: DVM
 Seq Number: 3112135 Date Prep: 12.30.19 15.00
 Prep seq: 7693537

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	12.30.19 22:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	12.30.19 22:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	12.30.19 22:04	U	1
Total TPH	PHC635	<49.9		15.0	mg/kg	12.30.19 22:04	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	110	70 - 135	%		
o-Terphenyl	115	70 - 135	%		



Certificate of Analytical Results

647632



Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **Sh2b @ 1'**

Matrix: Soil

Sample Depth: 1

Lab Sample Id: 647632-006

Date Collected: 12.26.19 10.55

Date Received: 12.30.19 11.07

Analytical Method: TPH By SW8015 Mod

Prep Method: 8015

Analyst: DVM

% Moist:

Tech: DVM

Seq Number: 3112135

Date Prep: 12.30.19 15.00

Prep seq: 7693537

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	12.30.19 22:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	12.30.19 22:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	12.30.19 22:25	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	12.30.19 22:25	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	115	70 - 135	%		



Certificate of Analytical Results

647632



Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BX

Sample Id: **7693498-1-BLK** Matrix: Solid Sample Depth:
 Lab Sample Id: 7693498-1-BLK Date Collected: Date Received:
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Analyst: SPC % Moist: Tech: SPC
 Seq Number: 3112072 Date Prep: 12.30.19 12.45
 Prep seq: 7693498

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<5.00	5.00	0.858	mg/kg	12.30.19 12:57	U	1

Sample Id: **7693537-1-BLK** Matrix: Solid Sample Depth:
 Lab Sample Id: 7693537-1-BLK Date Collected: Date Received:
 Analytical Method: TPH By SW8015 Mod Prep Method: 8015
 Analyst: DVM % Moist: Tech: DVM
 Seq Number: 3112135 Date Prep: 12.30.19 15.00
 Prep seq: 7693537

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	12.30.19 17:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	12.30.19 17:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	12.30.19 17:29	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	114	70 - 135	%		
o-Terphenyl	116	70 - 135	%		



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



Form 2 - Surrogate Recoveries

Project Name: New Mexico BW-BX

Work Orders : 647632,

Project ID:

Lab Batch #: 3112135

Sample: 7693537-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/30/19 17:29

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	58.2	50.0	116	70-135	

Lab Batch #: 3112135

Sample: 7693537-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/30/19 17:51

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	56.4	50.0	113	70-135	

Lab Batch #: 3112135

Sample: 7693537-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 12/30/19 18:12

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	116	100	116	70-135	
o-Terphenyl	50.2	50.0	100	70-135	

Lab Batch #: 3112135

Sample: 647634-002 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/19 18:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	137	99.7	137	70-135	**
o-Terphenyl	61.0	49.9	122	70-135	

Lab Batch #: 3112135

Sample: 647634-002 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 12/30/19 19:15

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	127	99.8	127	70-135	
o-Terphenyl	61.3	49.9	123	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: New Mexico BW-BX

Work Order #: 647632

Project ID:

Analyst: SPC

Date Prepared: 12/30/2019

Date Analyzed: 12/30/2019

Lab Batch ID: 3112072

Sample: 7693498-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<0.858	250	258	103	250	258	103	0	90-110	20	

Analyst: DVM

Date Prepared: 12/30/2019

Date Analyzed: 12/30/2019

Lab Batch ID: 3112135

Sample: 7693537-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	975	98	1000	958	96	2	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	1010	101	1000	977	98	3	70-135	20	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: New Mexico BW-BX

Work Order # : 647632

Project ID:

Lab Batch ID: 3112072

QC- Sample ID: 647613-014 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/30/2019

Date Prepared: 12/30/2019

Analyst: SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	168	250	430	105	250	420	101	2	90-110	20	

Lab Batch ID: 3112072

QC- Sample ID: 647628-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/30/2019

Date Prepared: 12/30/2019

Analyst: SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	317	249	535	88	249	546	92	2	90-110	20	X

Lab Batch ID: 3112135

QC- Sample ID: 647634-002 S

Batch #: 1 Matrix: Soil

Date Analyzed: 12/30/2019

Date Prepared: 12/30/2019

Analyst: DVM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	928	93	998	941	94	1	70-135	20	
Diesel Range Organics (DRO)	83.6	997	993	91	998	1020	94	3	70-135	20	

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

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

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

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



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:

1047438

www.xenco.com Page of

Project Manager:	Joel Lowry	Bill to: (if different)	CO Terrianne Fawks
Company Name:	Etech Environmental	Company Name:	Endeavor Energy Resources
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	432-466-4450	Email:	joel@etechenv.com, terrianne@eeonline.com

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: _____	
--	--

Project Name:	New Mexico BW-BX	Turn Around	ANALYSIS REQUEST																Preservative Codes			
Project Number:		Routine: ☐																	HNO ₃ : HN			
Project Location:	Rural Chavez	Rush: ☐																	H ₂ SO ₄ : H2			
Sampler's Name:	Hayden Scott	Due Date:																	HCL: HL			
PO #:																			None: NO			
SAMPLE RECEIPT		Temp Blank: Yes ☒ No ☐	Wet Ice: ☒ No ☐																	NaOH: Na		
Temperature (°C):	0.4	Thermometer ID																	MeOH: Me			
Received In tact:	Yes ☒ No ☐	Correction Factor:																	Zn Acetate+ NaOH: Zn			
Cooler Custody Seals:	Yes ☐ No ☒	Total Containers:																	TAT starts the day received by the lab, if received by 4:30pm			
Sample Custody Seals:	Yes ☐ No ☒																					
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth																	Sample Comments	
SP3 @ 3'	S	12/26/2019	9:30	3																		
SP3 @ 4'	S	12/26/2019	10:00	4																		
NH1b @ Surf.	S	12/26/2019	10:30	0																		
SP2 @ 2.5'-R	S	12/26/2019	10:40	2.5																		
SH2b @ Surf.	S	12/26/2019	10:50	0																		
SH2b @ 1'	S	12/26/2019	10:55	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 Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

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.

0.2

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1. <i>Joel Lowry</i>	2. <i>Hayden Scott</i>	2:55 12-22-19	3. <i>Joel Lowry</i>	4. <i>Hayden Scott</i>	12/30/19
5.			6.		1107



Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 12/30/2019 11:07:00 AM

Work Order #: 647632

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)?	.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?	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: 12/30/2019

Checklist reviewed by:

Jessica Kramer

Date: 12/31/2019



Certificate of Analysis Summary 658689

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Joel Lowry
Project Location: Endeavor

Date Received in Lab: Tue 04.14.2020 11:04**Report Date:** 04.15.2020 14:11**Project Manager:** Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658689-001	658689-002	658689-003	658689-004	658689-005	658689-006
	<i>Field Id:</i>	SW1	EW1	WW1	FS1	EW2	FS6
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00
	<i>Analyzed:</i>	04.14.2020 16:18	04.14.2020 16:38	04.14.2020 16:58	04.14.2020 17:18	04.14.2020 17:38	04.14.2020 17:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.00461 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Toluene		0.0125 0.00199	0.00451 0.00200	0.00347 0.00198	0.00206 0.00199	0.00204 0.00200	0.00242 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00398 0.00398	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		0.0171 0.00199	0.00451 0.00200	0.00347 0.00198	0.00206 0.00199	0.00204 0.00200	0.00242 0.00199
Chloride by EPA 300	<i>Extracted:</i>	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00
	<i>Analyzed:</i>	04.14.2020 17:44	04.14.2020 18:00	04.14.2020 18:05	04.14.2020 18:21	04.14.2020 18:26	04.14.2020 18:31
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<5.03 5.03	5.57 4.98	<5.00 5.00	13.1 4.96	<4.96 4.96	165 5.04
TPH By SW8015 Mod	<i>Extracted:</i>	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00
	<i>Analyzed:</i>	04.14.2020 15:15	04.14.2020 14:10	04.14.2020 15:37	04.14.2020 15:58	04.14.2020 16:19	04.14.2020 16:40
	<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	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		625 50.0	<49.9 49.9	96.5 49.9	169 49.8	<50.0 50.0	239 50.0
Motor Oil Range Hydrocarbons (MRO)		262 50.0	<49.9 49.9	<49.9 49.9	70.3 49.8	<50.0 50.0	<50.0 50.0
Total TPH		887 50.0	<49.9 49.9	96.5 49.9	239 49.8	<50.0 50.0	239 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 658689

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Joel Lowry
Project Location: Endeavor

Date Received in Lab: Tue 04.14.2020 11:04
Report Date: 04.15.2020 14:11
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658689-007	658689-008	658689-009	658689-010	658689-011	658689-012
	<i>Field Id:</i>	WW2	FS2	EW6	EW3	WW3	FS3
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00
	<i>Analyzed:</i>	04.14.2020 18:19	04.14.2020 18:39	04.14.2020 18:59	04.14.2020 19:19	04.14.2020 20:38	04.14.2020 20:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.00311 0.00199	0.00417 0.00199	<0.00199 0.00199	0.00418 0.00200	0.00275 0.00201	<0.00199 0.00199
Toluene		0.00504 0.00199	0.00961 0.00199	0.00279 0.00199	0.0122 0.00200	0.00382 0.00201	0.00500 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	0.00474 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	0.00399 0.00398
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	0.00436 0.00199
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	0.00835 0.00199
Total BTEX		0.00815 0.00199	0.0138 0.00199	0.00279 0.00199	0.0164 0.00200	0.00657 0.00201	0.0181 0.00199
Chloride by EPA 300	<i>Extracted:</i>	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 13:05	04.14.2020 13:05
	<i>Analyzed:</i>	04.14.2020 18:36	04.14.2020 18:42	04.14.2020 18:47	04.14.2020 18:52	04.14.2020 19:29	04.14.2020 19:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		13.8 5.02	8.17 5.00	23.1 5.00	<5.03 5.03	7.85 5.04	57.4 5.01
TPH By SW8015 Mod	<i>Extracted:</i>	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00
	<i>Analyzed:</i>	04.14.2020 17:01	04.14.2020 17:23	04.14.2020 17:44	04.14.2020 18:05	04.15.2020 07:35	04.15.2020 07:56
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		536 50.0	173 49.9	68.7 49.8	63.1 50.0	682 50.0	1110 49.8
Motor Oil Range Hydrocarbons (MRO)		185 50.0	57.7 49.9	<49.8 49.8	<50.0 50.0	289 50.0	241 49.8
Total TPH		721 50.0	231 49.9	68.7 49.8	63.1 50.0	971 50.0	1350 49.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 658689

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Joel Lowry
Project Location: Endeavor

Date Received in Lab: Tue 04.14.2020 11:04
Report Date: 04.15.2020 14:11
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658689-013	658689-014	658689-015	658689-016	658689-017	658689-018
	<i>Field Id:</i>	EW4	EW5	EW9	EW7	WW6	WW5
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 14:00
	<i>Analyzed:</i>	04.14.2020 21:18	04.14.2020 21:38	04.14.2020 21:58	04.14.2020 22:19	04.14.2020 22:39	04.14.2020 22:59
	<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	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	0.00394 0.00202
Toluene		<0.00201 0.00201	0.00629 0.00199	0.00243 0.00200	<0.00198 0.00198	0.00221 0.00198	0.00978 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	0.00205 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00400 0.00400	<0.00397 0.00397	<0.00396 0.00396	<0.00403 0.00403
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	0.00629 0.00199	0.00448 0.00200	<0.00198 0.00198	0.00221 0.00198	0.0137 0.00202
Chloride by EPA 300	<i>Extracted:</i>	04.14.2020 13:05	04.14.2020 13:05	04.14.2020 13:05	04.14.2020 13:05	04.14.2020 13:05	04.14.2020 13:05
	<i>Analyzed:</i>	04.14.2020 19:50	04.14.2020 19:56	04.14.2020 20:01	04.14.2020 20:17	04.14.2020 20:22	04.14.2020 20:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		141 5.00	21.0 5.04	418 4.99	5.17 4.99	21.6 4.98	53.5 5.03
TPH By SW8015 Mod	<i>Extracted:</i>	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00
	<i>Analyzed:</i>	04.15.2020 08:17	04.15.2020 08:38	04.15.2020 08:59	04.15.2020 09:20	04.15.2020 09:42	04.15.2020 10:03
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		126 49.9	61.5 49.8	929 50.0	84.5 50.0	69.8 49.9	94.6 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	179 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total TPH		126 49.9	61.5 49.8	1110 50.0	84.5 50.0	69.8 49.9	94.6 50.0

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 658689

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Joel Lowry
Project Location: Endeavor

Date Received in Lab: Tue 04.14.2020 11:04
Report Date: 04.15.2020 14:11
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658689-019	658689-020	658689-021	658689-022	658689-023	
	<i>Field Id:</i>	WW4	W8	FS7	WW7	WW9	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	04.09.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	04.14.2020 14:00	04.14.2020 14:00	04.14.2020 16:00	04.14.2020 16:00	04.14.2020 16:00	
	<i>Analyzed:</i>	04.14.2020 23:19	04.14.2020 23:39	04.15.2020 05:09	04.15.2020 05:29	04.15.2020 05:50	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	0.00211 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Toluene		0.00224 0.00200	0.00375 0.00199	0.00241 0.00202	<0.00200 0.00200	0.00231 0.00201	
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00401 0.00401	<0.00402 0.00402	
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	
Total BTEX		0.00224 0.00200	0.00586 0.00199	0.00241 0.00202	<0.00200 0.00200	0.00231 0.00201	
Chloride by EPA 300	<i>Extracted:</i>	04.14.2020 13:05	04.14.2020 13:05	04.14.2020 13:05	04.14.2020 13:05	04.14.2020 13:05	
	<i>Analyzed:</i>	04.14.2020 20:32	04.14.2020 20:43	04.14.2020 20:38	04.14.2020 20:59	04.14.2020 21:04	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		26.5 4.99	66.8 4.96	1290 24.8	166 5.02	105 5.02	
TPH By SW8015 Mod	<i>Extracted:</i>	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	04.14.2020 12:00	
	<i>Analyzed:</i>	04.15.2020 09:20	04.15.2020 09:42	04.15.2020 08:17	04.15.2020 08:38	04.15.2020 08:59	
	<i>Units/RL:</i>	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	<50.0 50.0	<50.0 50.0	
Diesel Range Organics (DRO)		836 49.9	952 50.0	208 50.0	226 50.0	486 50.0	
Motor Oil Range Hydrocarbons (MRO)		254 49.9	234 50.0	<50.0 50.0	<50.0 50.0	139 50.0	
Total TPH		1090 49.9	1190 50.0	208 50.0	226 50.0	625 50.0	

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Jessica Kramer
Project Manager



Analytical Report 658689

for

Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

New Mexico BW-BX

11573

04.15.2020

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)



04.15.2020

Project Manager: **Joel Lowry**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **658689**

New Mexico BW-BX

Project Address: Endeavor

Joel Lowry:

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) 658689. 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. 658689 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 Manager

A Small Business and Minority Company

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



Sample Cross Reference 658689

Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW1	S	04.09.2020 00:00		658689-001
EW1	S	04.09.2020 00:00		658689-002
WW1	S	04.09.2020 00:00		658689-003
FS1	S	04.09.2020 00:00		658689-004
EW2	S	04.09.2020 00:00		658689-005
FS6	S	04.09.2020 00:00		658689-006
WW2	S	04.09.2020 00:00		658689-007
FS2	S	04.09.2020 00:00		658689-008
EW6	S	04.09.2020 00:00		658689-009
EW3	S	04.09.2020 00:00		658689-010
WW3	S	04.09.2020 00:00		658689-011
FS3	S	04.09.2020 00:00		658689-012
EW4	S	04.09.2020 00:00		658689-013
EW5	S	04.09.2020 00:00		658689-014
EW9	S	04.09.2020 00:00		658689-015
EW7	S	04.09.2020 00:00		658689-016
WW6	S	04.09.2020 00:00		658689-017
WW5	S	04.09.2020 00:00		658689-018
WW4	S	04.09.2020 00:00		658689-019
W8	S	04.09.2020 00:00		658689-020
FS7	S	04.09.2020 00:00		658689-021
WW7	S	04.09.2020 00:00		658689-022
WW9	S	04.09.2020 00:00		658689-023



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 658689

Report Date: 04.15.2020
Date Received: 04.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123032 BTEX by EPA 8021B

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

Batch: LBA-3123033 BTEX by EPA 8021B

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

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

Samples affected are: 658689-006.



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **SW1** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-001 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	04.14.2020 17:44	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.14.2020 15:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	625	50.0	mg/kg	04.14.2020 15:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	262	50.0	mg/kg	04.14.2020 15:15		1
Total TPH	PHC635	887	50.0	mg/kg	04.14.2020 15:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	04.14.2020 15:15	
o-Terphenyl	84-15-1	102	%	70-130	04.14.2020 15:15	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **SW1**
Lab Sample Id: 658689-001

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00461	0.00199	mg/kg	04.14.2020 16:18		1
Toluene	108-88-3	0.0125	0.00199	mg/kg	04.14.2020 16:18		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 16:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 16:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 16:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 16:18	U	1
Total BTEX		0.0171	0.00199	mg/kg	04.14.2020 16:18		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	70-130	04.14.2020 16:18		
4-Bromofluorobenzene	460-00-4	106	%	70-130	04.14.2020 16:18		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW1** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-002 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.57	4.98	mg/kg	04.14.2020 18:00		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.14.2020 14:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.14.2020 14:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.14.2020 14:10	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.14.2020 14:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	04.14.2020 14:10	
o-Terphenyl	84-15-1	94	%	70-130	04.14.2020 14:10	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW1**
Lab Sample Id: 658689-002

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.14.2020 16:38	U	1
Toluene	108-88-3	0.00451	0.00200	mg/kg	04.14.2020 16:38		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.14.2020 16:38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.14.2020 16:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.14.2020 16:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.14.2020 16:38	U	1
Total BTEX		0.00451	0.00200	mg/kg	04.14.2020 16:38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.14.2020 16:38		
1,4-Difluorobenzene	540-36-3	97	%	70-130	04.14.2020 16:38		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW1** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-003 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	04.14.2020 18:05	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.14.2020 15:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	96.5	49.9	mg/kg	04.14.2020 15:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.14.2020 15:37	U	1
Total TPH	PHC635	96.5	49.9	mg/kg	04.14.2020 15:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	04.14.2020 15:37	
o-Terphenyl	84-15-1	94	%	70-130	04.14.2020 15:37	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW1**
Lab Sample Id: 658689-003

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.14.2020 16:58	U	1
Toluene	108-88-3	0.00347	0.00198	mg/kg	04.14.2020 16:58		1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.14.2020 16:58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	04.14.2020 16:58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.14.2020 16:58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.14.2020 16:58	U	1
Total BTEX		0.00347	0.00198	mg/kg	04.14.2020 16:58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.14.2020 16:58		
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.14.2020 16:58		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS1** Matrix: **Soil** Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-004 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 04.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.1	4.96	mg/kg	04.14.2020 18:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 04.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.14.2020 15:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	169	49.8	mg/kg	04.14.2020 15:58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	70.3	49.8	mg/kg	04.14.2020 15:58		1
Total TPH	PHC635	239	49.8	mg/kg	04.14.2020 15:58		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	04.14.2020 15:58	
o-Terphenyl	84-15-1	98	%	70-130	04.14.2020 15:58	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS1**
Lab Sample Id: 658689-004

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.14.2020 17:18	U	1
Toluene	108-88-3	0.00206	0.00199	mg/kg	04.14.2020 17:18		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 17:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 17:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 17:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 17:18	U	1
Total BTEX		0.00206	0.00199	mg/kg	04.14.2020 17:18		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.14.2020 17:18		
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.14.2020 17:18		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW2** Matrix: **Soil** Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-005 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 04.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	04.14.2020 18:26	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 04.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.14.2020 16:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.14.2020 16:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.14.2020 16:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.14.2020 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	04.14.2020 16:19	
o-Terphenyl	84-15-1	97	%	70-130	04.14.2020 16:19	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW2**
Lab Sample Id: 658689-005

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.14.2020 17:38	U	1
Toluene	108-88-3	0.00204	0.00200	mg/kg	04.14.2020 17:38		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.14.2020 17:38	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.14.2020 17:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.14.2020 17:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.14.2020 17:38	U	1
Total BTEX		0.00204	0.00200	mg/kg	04.14.2020 17:38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	04.14.2020 17:38		
4-Bromofluorobenzene	460-00-4	105	%	70-130	04.14.2020 17:38		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS6** Matrix: **Soil** Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-006 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 04.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	165	5.04	mg/kg	04.14.2020 18:31		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 04.14.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.14.2020 16:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	239	50.0	mg/kg	04.14.2020 16:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.14.2020 16:40	U	1
Total TPH	PHC635	239	50.0	mg/kg	04.14.2020 16:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.14.2020 16:40	
o-Terphenyl	84-15-1	97	%	70-130	04.14.2020 16:40	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS6**
Lab Sample Id: 658689-006

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.14.2020 17:58	U	1
Toluene	108-88-3	0.00242	0.00199	mg/kg	04.14.2020 17:58		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 17:58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 17:58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 17:58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 17:58	U	1
Total BTEX		0.00242	0.00199	mg/kg	04.14.2020 17:58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	140	%	70-130	04.14.2020 17:58	**	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.14.2020 17:58		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW2** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-007 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.8	5.02	mg/kg	04.14.2020 18:36		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.14.2020 17:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	536	50.0	mg/kg	04.14.2020 17:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	185	50.0	mg/kg	04.14.2020 17:01		1
Total TPH	PHC635	721	50.0	mg/kg	04.14.2020 17:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	04.14.2020 17:01	
o-Terphenyl	84-15-1	97	%	70-130	04.14.2020 17:01	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW2**
Lab Sample Id: 658689-007

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00311	0.00199	mg/kg	04.14.2020 18:19		1
Toluene	108-88-3	0.00504	0.00199	mg/kg	04.14.2020 18:19		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 18:19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 18:19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 18:19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 18:19	U	1
Total BTEX		0.00815	0.00199	mg/kg	04.14.2020 18:19		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	85	%	70-130	04.14.2020 18:19		
1,4-Difluorobenzene	540-36-3	92	%	70-130	04.14.2020 18:19		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS2 Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-008 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.17	5.00	mg/kg	04.14.2020 18:42		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.14.2020 17:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	173	49.9	mg/kg	04.14.2020 17:23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	57.7	49.9	mg/kg	04.14.2020 17:23		1
Total TPH	PHC635	231	49.9	mg/kg	04.14.2020 17:23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	04.14.2020 17:23	
o-Terphenyl	84-15-1	97	%	70-130	04.14.2020 17:23	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS2
Lab Sample Id: 658689-008

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00417	0.00199	mg/kg	04.14.2020 18:39		1
Toluene	108-88-3	0.00961	0.00199	mg/kg	04.14.2020 18:39		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 18:39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 18:39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 18:39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 18:39	U	1
Total BTEX		0.0138	0.00199	mg/kg	04.14.2020 18:39		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	04.14.2020 18:39		
4-Bromofluorobenzene	460-00-4	105	%	70-130	04.14.2020 18:39		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW6** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-009 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.1	5.00	mg/kg	04.14.2020 18:47		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.14.2020 17:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	68.7	49.8	mg/kg	04.14.2020 17:44		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.14.2020 17:44	U	1
Total TPH	PHC635	68.7	49.8	mg/kg	04.14.2020 17:44		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	04.14.2020 17:44	
o-Terphenyl	84-15-1	96	%	70-130	04.14.2020 17:44	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW6**
Lab Sample Id: 658689-009

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.14.2020 18:59	U	1
Toluene	108-88-3	0.00279	0.00199	mg/kg	04.14.2020 18:59		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 18:59	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 18:59	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 18:59	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 18:59	U	1
Total BTEX		0.00279	0.00199	mg/kg	04.14.2020 18:59		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.14.2020 18:59		
4-Bromofluorobenzene	460-00-4	114	%	70-130	04.14.2020 18:59		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW3** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-010 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123019

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	04.14.2020 18:52	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.14.2020 18:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	63.1	50.0	mg/kg	04.14.2020 18:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.14.2020 18:05	U	1
Total TPH	PHC635	63.1	50.0	mg/kg	04.14.2020 18:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	04.14.2020 18:05	
o-Terphenyl	84-15-1	93	%	70-130	04.14.2020 18:05	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW3**
Lab Sample Id: 658689-010

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00418	0.00200	mg/kg	04.14.2020 19:19		1
Toluene	108-88-3	0.0122	0.00200	mg/kg	04.14.2020 19:19		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.14.2020 19:19	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.14.2020 19:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.14.2020 19:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.14.2020 19:19	U	1
Total BTEX		0.0164	0.00200	mg/kg	04.14.2020 19:19		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.14.2020 19:19		
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.14.2020 19:19		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW3** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-011 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.85	5.04	mg/kg	04.14.2020 19:29		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 07:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	682	50.0	mg/kg	04.15.2020 07:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	289	50.0	mg/kg	04.15.2020 07:35		1
Total TPH	PHC635	971	50.0	mg/kg	04.15.2020 07:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	04.15.2020 07:35	
o-Terphenyl	84-15-1	94	%	70-130	04.15.2020 07:35	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW3**
Lab Sample Id: 658689-011

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00275	0.00201	mg/kg	04.14.2020 20:38		1
Toluene	108-88-3	0.00382	0.00201	mg/kg	04.14.2020 20:38		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.14.2020 20:38	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.14.2020 20:38	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.14.2020 20:38	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.14.2020 20:38	U	1
Total BTEX		0.00657	0.00201	mg/kg	04.14.2020 20:38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.14.2020 20:38		
4-Bromofluorobenzene	460-00-4	89	%	70-130	04.14.2020 20:38		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS3 Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-012 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	57.4	5.01	mg/kg	04.14.2020 19:45		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.15.2020 07:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	1110	49.8	mg/kg	04.15.2020 07:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	241	49.8	mg/kg	04.15.2020 07:56		1
Total TPH	PHC635	1350	49.8	mg/kg	04.15.2020 07:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	04.15.2020 07:56	
o-Terphenyl	84-15-1	104	%	70-130	04.15.2020 07:56	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS3
Lab Sample Id: 658689-012

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.14.2020 20:58	U	1
Toluene	108-88-3	0.00500	0.00199	mg/kg	04.14.2020 20:58		1
Ethylbenzene	100-41-4	0.00474	0.00199	mg/kg	04.14.2020 20:58		1
m,p-Xylenes	179601-23-1	0.00399	0.00398	mg/kg	04.14.2020 20:58		1
o-Xylene	95-47-6	0.00436	0.00199	mg/kg	04.14.2020 20:58		1
Total Xylenes	1330-20-7	0.00835	0.00199	mg/kg	04.14.2020 20:58		1
Total BTEX		0.0181	0.00199	mg/kg	04.14.2020 20:58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	80	%	70-130	04.14.2020 20:58		
4-Bromofluorobenzene	460-00-4	129	%	70-130	04.14.2020 20:58		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW4** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-013 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	141	5.00	mg/kg	04.14.2020 19:50		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 08:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	126	49.9	mg/kg	04.15.2020 08:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.15.2020 08:17	U	1
Total TPH	PHC635	126	49.9	mg/kg	04.15.2020 08:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	04.15.2020 08:17	
o-Terphenyl	84-15-1	93	%	70-130	04.15.2020 08:17	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW4**
Lab Sample Id: 658689-013

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.14.2020 21:18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.14.2020 21:18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.14.2020 21:18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.14.2020 21:18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.14.2020 21:18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.14.2020 21:18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.14.2020 21:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	04.14.2020 21:18	
4-Bromofluorobenzene	460-00-4	110	%	70-130	04.14.2020 21:18	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW5** Matrix: **Soil** Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-014 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.0	5.04	mg/kg	04.14.2020 19:56		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.15.2020 08:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.5	49.8	mg/kg	04.15.2020 08:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.15.2020 08:38	U	1
Total TPH	PHC635	61.5	49.8	mg/kg	04.15.2020 08:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.15.2020 08:38	
o-Terphenyl	84-15-1	96	%	70-130	04.15.2020 08:38	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW5**
Lab Sample Id: 658689-014

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.14.2020 21:38	U	1
Toluene	108-88-3	0.00629	0.00199	mg/kg	04.14.2020 21:38		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 21:38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 21:38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 21:38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 21:38	U	1
Total BTEX		0.00629	0.00199	mg/kg	04.14.2020 21:38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.14.2020 21:38		
4-Bromofluorobenzene	460-00-4	90	%	70-130	04.14.2020 21:38		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW9** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-015 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	418	4.99	mg/kg	04.14.2020 20:01		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 08:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	929	50.0	mg/kg	04.15.2020 08:59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	179	50.0	mg/kg	04.15.2020 08:59		1
Total TPH	PHC635	1110	50.0	mg/kg	04.15.2020 08:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.15.2020 08:59	
o-Terphenyl	84-15-1	100	%	70-130	04.15.2020 08:59	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW9**
Lab Sample Id: 658689-015

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.14.2020 21:58	U	1
Toluene	108-88-3	0.00243	0.00200	mg/kg	04.14.2020 21:58		1
Ethylbenzene	100-41-4	0.00205	0.00200	mg/kg	04.14.2020 21:58		1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.14.2020 21:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.14.2020 21:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.14.2020 21:58	U	1
Total BTEX		0.00448	0.00200	mg/kg	04.14.2020 21:58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	87	%	70-130	04.14.2020 21:58		
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.14.2020 21:58		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW7** Matrix: **Soil** Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-016 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.17	4.99	mg/kg	04.14.2020 20:17		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 09:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	84.5	50.0	mg/kg	04.15.2020 09:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 09:20	U	1
Total TPH	PHC635	84.5	50.0	mg/kg	04.15.2020 09:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.15.2020 09:20	
o-Terphenyl	84-15-1	94	%	70-130	04.15.2020 09:20	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW7**
Lab Sample Id: 658689-016

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.14.2020 22:19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.14.2020 22:19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.14.2020 22:19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	04.14.2020 22:19	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.14.2020 22:19	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.14.2020 22:19	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.14.2020 22:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.14.2020 22:19		
4-Bromofluorobenzene	460-00-4	104	%	70-130	04.14.2020 22:19		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW6** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-017 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.6	4.98	mg/kg	04.14.2020 20:22		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 09:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	69.8	49.9	mg/kg	04.15.2020 09:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.15.2020 09:42	U	1
Total TPH	PHC635	69.8	49.9	mg/kg	04.15.2020 09:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	04.15.2020 09:42	
o-Terphenyl	84-15-1	97	%	70-130	04.15.2020 09:42	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW6**
Lab Sample Id: 658689-017

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.14.2020 22:39	U	1
Toluene	108-88-3	0.00221	0.00198	mg/kg	04.14.2020 22:39		1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.14.2020 22:39	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	04.14.2020 22:39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.14.2020 22:39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.14.2020 22:39	U	1
Total BTEX		0.00221	0.00198	mg/kg	04.14.2020 22:39		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.14.2020 22:39		
4-Bromofluorobenzene	460-00-4	108	%	70-130	04.14.2020 22:39		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW5** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-018 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	53.5	5.03	mg/kg	04.14.2020 20:27		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 10:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	94.6	50.0	mg/kg	04.15.2020 10:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 10:03	U	1
Total TPH	PHC635	94.6	50.0	mg/kg	04.15.2020 10:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.15.2020 10:03	
o-Terphenyl	84-15-1	96	%	70-130	04.15.2020 10:03	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW5**
Lab Sample Id: 658689-018

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00394	0.00202	mg/kg	04.14.2020 22:59		1
Toluene	108-88-3	0.00978	0.00202	mg/kg	04.14.2020 22:59		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.14.2020 22:59	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.14.2020 22:59	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.14.2020 22:59	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.14.2020 22:59	U	1
Total BTEX		0.0137	0.00202	mg/kg	04.14.2020 22:59		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	04.14.2020 22:59		
1,4-Difluorobenzene	540-36-3	102	%	70-130	04.14.2020 22:59		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW4** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-019 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.5	4.99	mg/kg	04.14.2020 20:32		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 09:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	836	49.9	mg/kg	04.15.2020 09:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	254	49.9	mg/kg	04.15.2020 09:20		1
Total TPH	PHC635	1090	49.9	mg/kg	04.15.2020 09:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	04.15.2020 09:20	
o-Terphenyl	84-15-1	99	%	70-130	04.15.2020 09:20	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW4**
Lab Sample Id: 658689-019

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.14.2020 23:19	U	1
Toluene	108-88-3	0.00224	0.00200	mg/kg	04.14.2020 23:19		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.14.2020 23:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.14.2020 23:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.14.2020 23:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.14.2020 23:19	U	1
Total BTEX		0.00224	0.00200	mg/kg	04.14.2020 23:19		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	04.14.2020 23:19		
4-Bromofluorobenzene	460-00-4	117	%	70-130	04.14.2020 23:19		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **W8** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-020 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.8	4.96	mg/kg	04.14.2020 20:43		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123058

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 09:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	952	50.0	mg/kg	04.15.2020 09:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	234	50.0	mg/kg	04.15.2020 09:42		1
Total TPH	PHC635	1190	50.0	mg/kg	04.15.2020 09:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	04.15.2020 09:42	
o-Terphenyl	84-15-1	99	%	70-130	04.15.2020 09:42	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **W8**
Lab Sample Id: 658689-020

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 14:00

Basis: Wet Weight

Seq Number: 3123033

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00211	0.00199	mg/kg	04.14.2020 23:39		1
Toluene	108-88-3	0.00375	0.00199	mg/kg	04.14.2020 23:39		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.14.2020 23:39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.14.2020 23:39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.14.2020 23:39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.14.2020 23:39	U	1
Total BTEX		0.00586	0.00199	mg/kg	04.14.2020 23:39		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	115	%	70-130	04.14.2020 23:39		
1,4-Difluorobenzene	540-36-3	88	%	70-130	04.14.2020 23:39		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS7 Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-021 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1290	24.8	mg/kg	04.14.2020 20:38		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123057

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 08:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	208	50.0	mg/kg	04.15.2020 08:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 08:17	U	1
Total TPH	PHC635	208	50.0	mg/kg	04.15.2020 08:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-130	04.15.2020 08:17	
o-Terphenyl	84-15-1	86	%	70-130	04.15.2020 08:17	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS7**
Lab Sample Id: 658689-021

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 16:00

Basis: Wet Weight

Seq Number: 3123032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.15.2020 05:09	U	1
Toluene	108-88-3	0.00241	0.00202	mg/kg	04.15.2020 05:09		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.15.2020 05:09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.15.2020 05:09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.15.2020 05:09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.15.2020 05:09	U	1
Total BTEX		0.00241	0.00202	mg/kg	04.15.2020 05:09		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	04.15.2020 05:09		
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.15.2020 05:09		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW7** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-022 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	166	5.02	mg/kg	04.14.2020 20:59		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123057

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 08:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	226	50.0	mg/kg	04.15.2020 08:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 08:38	U	1
Total TPH	PHC635	226	50.0	mg/kg	04.15.2020 08:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	04.15.2020 08:38	
o-Terphenyl	84-15-1	82	%	70-130	04.15.2020 08:38	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW7**
Lab Sample Id: 658689-022

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 16:00

Basis: Wet Weight

Seq Number: 3123032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.15.2020 05:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.15.2020 05:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.15.2020 05:29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.15.2020 05:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.15.2020 05:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.15.2020 05:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.15.2020 05:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.15.2020 05:29		
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.15.2020 05:29		



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW9** Matrix: Soil Date Received: 04.14.2020 11:04
 Lab Sample Id: 658689-023 Date Collected: 04.09.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.14.2020 13:05 Basis: Wet Weight
 Seq Number: 3123021

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	105	5.02	mg/kg	04.14.2020 21:04		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3123057

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 08:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	486	50.0	mg/kg	04.15.2020 08:59		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	139	50.0	mg/kg	04.15.2020 08:59		1
Total TPH	PHC635	625	50.0	mg/kg	04.15.2020 08:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	04.15.2020 08:59	
o-Terphenyl	84-15-1	96	%	70-130	04.15.2020 08:59	



Certificate of Analytical Results 658689

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW9**
Lab Sample Id: 658689-023

Matrix: Soil
Date Collected: 04.09.2020 00:00

Date Received: 04.14.2020 11:04

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.14.2020 16:00

Basis: Wet Weight

Seq Number: 3123032

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.15.2020 05:50	U	1
Toluene	108-88-3	0.00231	0.00201	mg/kg	04.15.2020 05:50		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.15.2020 05:50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.15.2020 05:50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.15.2020 05:50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.15.2020 05:50	U	1
Total BTEX		0.00231	0.00201	mg/kg	04.15.2020 05:50		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.15.2020 05:50		
4-Bromofluorobenzene	460-00-4	118	%	70-130	04.15.2020 05:50		



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

New Mexico BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3123019

MB Sample Id: 7701234-1-BLK

Matrix: Solid

LCS Sample Id: 7701234-1-BKS

Prep Method: E300P

Date Prep: 04.14.2020

LCSD Sample Id: 7701234-1-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	241	96	243	97	90-110	1	20	mg/kg	04.14.2020 16:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3123021

MB Sample Id: 7701238-1-BLK

Matrix: Solid

LCS Sample Id: 7701238-1-BKS

Prep Method: E300P

Date Prep: 04.14.2020

LCSD Sample Id: 7701238-1-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	250	100	243	97	90-110	3	20	mg/kg	04.14.2020 19:19	

Analytical Method: Chloride by EPA 300

Seq Number: 3123019

Parent Sample Id: 658689-001

Matrix: Soil

MS Sample Id: 658689-001 S

Prep Method: E300P

Date Prep: 04.14.2020

MSD Sample Id: 658689-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.03	252	263	104	266	106	90-110	1	20	mg/kg	04.14.2020 17:49	

Analytical Method: Chloride by EPA 300

Seq Number: 3123019

Parent Sample Id: 658719-003

Matrix: Soil

MS Sample Id: 658719-003 S

Prep Method: E300P

Date Prep: 04.14.2020

MSD Sample Id: 658719-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	36.7	251	295	103	286	99	90-110	3	20	mg/kg	04.14.2020 16:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3123021

Parent Sample Id: 658689-011

Matrix: Soil

MS Sample Id: 658689-011 S

Prep Method: E300P

Date Prep: 04.14.2020

MSD Sample Id: 658689-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.85	252	278	107	279	108	90-110	0	20	mg/kg	04.14.2020 19:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3123021

Parent Sample Id: 658689-020

Matrix: Soil

MS Sample Id: 658689-020 S

Prep Method: E300P

Date Prep: 04.14.2020

MSD Sample Id: 658689-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	66.8	248	319	102	314	100	90-110	2	20	mg/kg	04.14.2020 20:48	

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
New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123057

Matrix: Solid

Prep Method: SW8015P

Date Prep: 04.14.2020

MB Sample Id: 7701213-1-BLK

LCS Sample Id: 7701213-1-BKS

LCSD Sample Id: 7701213-1-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	955	96	954	95	70-130	0	20	mg/kg	04.14.2020 13:28	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1010	101	70-130	0	20	mg/kg	04.14.2020 13:28	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	92		96			95			70-130	%	04.14.2020 13:28	
o-Terphenyl	98		97			98			70-130	%	04.14.2020 13:28	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123058

Matrix: Solid

Prep Method: SW8015P

Date Prep: 04.14.2020

MB Sample Id: 7701241-1-BLK

LCS Sample Id: 7701241-1-BKS

LCSD Sample Id: 7701241-1-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	888	89	827	83	70-130	7	20	mg/kg	04.14.2020 13:28	
Diesel Range Organics (DRO)	<50.0	1000	951	95	859	86	70-130	10	20	mg/kg	04.14.2020 13:28	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	92		96			90			70-130	%	04.14.2020 13:28	
o-Terphenyl	98		93			96			70-130	%	04.14.2020 13:28	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123057

Matrix: Solid

Prep Method: SW8015P

Date Prep: 04.14.2020

MB Sample Id: 7701213-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.14.2020 13:07	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123058

Matrix: Solid

Prep Method: SW8015P

Date Prep: 04.14.2020

MB Sample Id: 7701241-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.14.2020 13:07	

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

New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123057

Parent Sample Id: 658719-001

Matrix: Soil

MS Sample Id: 658719-001 S

Prep Method: SW8015P

Date Prep: 04.14.2020

MSD Sample Id: 658719-001 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	1100	110	1150	115	70-130	4	20	mg/kg	04.14.2020 14:32	
Diesel Range Organics (DRO)	752	997	1870	112	1840	109	70-130	2	20	mg/kg	04.14.2020 14:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		96		70-130	%	04.14.2020 14:32
o-Terphenyl	80		80		70-130	%	04.14.2020 14:32

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123058

Parent Sample Id: 658689-002

Matrix: Soil

MS Sample Id: 658689-002 S

Prep Method: SW8015P

Date Prep: 04.14.2020

MSD Sample Id: 658689-002 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	843	84	840	84	70-130	0	20	mg/kg	04.14.2020 14:32	
Diesel Range Organics (DRO)	<50.0	999	885	89	883	89	70-130	0	20	mg/kg	04.14.2020 14:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		90		70-130	%	04.14.2020 14:32
o-Terphenyl	95		96		70-130	%	04.14.2020 14:32

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123033

MB Sample Id: 7701292-1-BLK

Matrix: Solid

LCS Sample Id: 7701292-1-BKS

Prep Method: SW5030B

Date Prep: 04.14.2020

LCSD Sample Id: 7701292-1-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	0.0985	99	0.0985	99	70-130	0	35	mg/kg	04.14.2020 13:59	
Toluene	<0.00200	0.100	0.101	101	0.108	108	70-130	7	35	mg/kg	04.14.2020 13:59	
Ethylbenzene	<0.00200	0.100	0.105	105	0.112	112	70-130	6	35	mg/kg	04.14.2020 13:59	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.230	115	70-130	7	35	mg/kg	04.14.2020 13:59	
o-Xylene	<0.00200	0.100	0.108	108	0.117	117	70-130	8	35	mg/kg	04.14.2020 13:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		98		102		70-130	%	04.14.2020 13:59
4-Bromofluorobenzene	85		106		105		70-130	%	04.14.2020 13:59

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
New Mexico BW-BX

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123032

Matrix: Solid

Prep Method: SW5030B

Date Prep: 04.14.2020

MB Sample Id: 7701290-1-BLK

LCS Sample Id: 7701290-1-BKS

LCSD Sample Id: 7701290-1-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	0.0961	96	0.0889	89	70-130	8	35	mg/kg	04.14.2020 21:39	
Toluene	<0.00200	0.100	0.109	109	0.0996	100	70-130	9	35	mg/kg	04.14.2020 21:39	
Ethylbenzene	<0.00200	0.100	0.110	110	0.0998	100	70-130	10	35	mg/kg	04.14.2020 21:39	
m,p-Xylenes	<0.00400	0.200	0.224	112	0.203	102	70-130	10	35	mg/kg	04.14.2020 21:39	
o-Xylene	<0.00200	0.100	0.114	114	0.103	103	70-130	10	35	mg/kg	04.14.2020 21:39	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	107		105		102		70-130			%	04.14.2020 21:39	
4-Bromofluorobenzene	112		118		109		70-130			%	04.14.2020 21:39	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123033

Matrix: Soil

Prep Method: SW5030B

Date Prep: 04.14.2020

Parent Sample Id: 658689-001

MS Sample Id: 658689-001 S

MSD Sample Id: 658689-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00461	0.0994	0.0902	86	0.0811	77	70-130	11	35	mg/kg	04.14.2020 14:39	
Toluene	0.0125	0.0994	0.104	92	0.0913	79	70-130	13	35	mg/kg	04.14.2020 14:39	
Ethylbenzene	<0.00199	0.0994	0.0837	84	0.0731	74	70-130	14	35	mg/kg	04.14.2020 14:39	
m,p-Xylenes	<0.00398	0.199	0.168	84	0.146	73	70-130	14	35	mg/kg	04.14.2020 14:39	
o-Xylene	<0.00199	0.0994	0.0849	85	0.0758	76	70-130	11	35	mg/kg	04.14.2020 14:39	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			100		101		70-130			%	04.14.2020 14:39	
4-Bromofluorobenzene			94		97		70-130			%	04.14.2020 14:39	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123032

Matrix: Soil

Prep Method: SW5030B

Date Prep: 04.14.2020

Parent Sample Id: 658719-001

MS Sample Id: 658719-001 S

MSD Sample Id: 658719-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0750	75	0.0823	82	70-130	9	35	mg/kg	04.14.2020 22:20	
Toluene	<0.00200	0.0998	0.0791	79	0.0850	85	70-130	7	35	mg/kg	04.14.2020 22:20	
Ethylbenzene	<0.00200	0.0998	0.0717	72	0.0785	79	70-130	9	35	mg/kg	04.14.2020 22:20	
m,p-Xylenes	<0.00399	0.200	0.146	73	0.159	80	70-130	9	35	mg/kg	04.14.2020 22:20	
o-Xylene	<0.00200	0.0998	0.0736	74	0.0791	79	70-130	7	35	mg/kg	04.14.2020 22:20	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			104		108		70-130			%	04.14.2020 22:20	
4-Bromofluorobenzene			106		106		70-130			%	04.14.2020 22:20	

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:

10581089

www.xenco.com Page 1 of 3

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

Program: ☐ PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐ State of Project:	
Reporting Level I ☐	Level II ☐ PST/UST ☐ TRR ☐ Level III ☐
Deliverables: EDD ☐	ADAPT ☐ Other: ☐

Project Name:	New Mexico BM-BX	Turn Around	
Project Number:	11573	Routing: ☒	
Project Location:	Endeavor	Rush: ☒	
Sampler's Name:	Eric Mojica	Due Date:	
PO #:			
SAMPLE RECEIPT Temperature (°C): 0.005 Received Inlet: Yes No Cooler Custody Seals: Yes No Sample Custody Seals: Yes No		Temp Blank: Yes No Wet Ice: Yes No Thermometer ID: 24 Correction Factor: -0.5 Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	ANALYSIS REQUEST	Preservative Codes
SM1	S	4-9-20			Chloride E300		HNO3: HN
EW1	S	4-9-20			BTEX 8021		H2SO4: H2
WM1	S	4-9-20			TPH Modified Ext		HCL: HL
FS1	S	4-9-20			TPH TX1005		None: NO
EW2	S	4-9-20					NaOH: Na
FS2	S	4-9-20					MeOH: Me
WM2	S	4-9-20					Zn Acetate+ NaOH: Zn
FS3	S	4-9-20					TAT starts the day received by the lab, if received by 4:30pm
EW3	S	4-9-20					

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Eric Mojica	Eric Mojica	4/13/20	Eric Mojica	Eric Mojica	4/14
					1109



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (214) 349-0300, Fort Worth, TX (817) 342-0300, Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 799-0300, Albuquerque, NM (505) 263-0300, Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3189, Phoenix, AZ (602) 254-0300, Tucson, AZ (520) 622-0300, Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 271-0300, Atlanta, GA (770) 449-8800

DATE: 13Apr20
WGT: 39.00 LBS
DV: 0.00
SHIPPING: SPECIAL:
HANDLING: TOTAL:
SVCS: PRIORITY OVERNIGHT HLD
TRCK: 4705 2523 3778

0000

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lowington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@elechenv.com + Client
Project Name:	A1	A4	011 207

www.xenico.com Page 2 of 3

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level I ☐ Level II ☐ PST/UST ☐ TRR ☐ Level III ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

ANALYSIS REQUEST										Preservative Codes	
Project Name:	Five W Mexico BM-BX					Turn Around					HN03: HN
Project Number:	11573					Receiving: ☒					H2S04: H2
Project Location	Endeavor					Rush: ☒					HCL: HL
Sample's Name:	Eric Mojica					Due Date:					None: NO
PO #:											NaOH: Na
SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No				MeOH: Me
Temperature (°C):	0-810.5				Thermometer ID	24					Zn Acetate+ NaOH: Zn
Received Inact:	Yes		No								TAT starts the day received by the
Cooler Custody Seals:	Yes		No	Correction Factor:	0.5						
Sample Custody Seals:	Yes		No	Total Containers:							

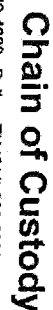
[illegible]

Local 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 To: (C)

Item Requisitioned by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>En. Maje</i>	<i>Teresa Amador</i>	4/13/20	2 <i>Teresa Amador</i>	<i>[Signature]</i>	4/14
3			4	<i>[Signature]</i>	
5			6		11/04



Work Order No.:

1554809

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting: Level I ☐ Level II ☐ PST/US ☐ TRR ☐ Level ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Total	200.7 / 6010	200.8 / 6020:	
Circle Method(s) and Metal(s) to be analyzed	8RCRA 13PPM Texas 11 A 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

Note: 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 \$3 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Printed/inked by: 7/20/2001 1:11:11 PM

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 \$3 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
1 <i>E. Mc</i>	<i>Veresa Howard</i>	4/13/20
2	<i>Veresa Howard</i>	4/14
3		
4		
5		
6		1/24

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.14.2020 11.04.00 AM

Work Order #: 658689

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.5
#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: 04.14.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.14.2020



Certificate of Analysis Summary 658819

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Joel Lowry
Project Location: Endeavor

Date Received in Lab: Wed 04.15.2020 10:08
Report Date: 04.16.2020 14:21
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658819-001	658819-002	658819-003	658819-004	658819-005	658819-006
	<i>Field Id:</i>	FS4A	FS5A	FS8A	EW8A	FS9A	FS10
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30
	<i>Analyzed:</i>	04.16.2020 02:39	04.16.2020 03:58	04.16.2020 04:18	04.16.2020 04:38	04.16.2020 04:58	04.16.2020 05:18
	<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	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00402 0.00402	<0.00398 0.00398	<0.00402 0.00402	<0.00399 0.00399	<0.00397 0.00397	<0.00397 0.00397
o-Xylene		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50
	<i>Analyzed:</i>	04.15.2020 14:21	04.15.2020 14:26	04.15.2020 14:31	04.15.2020 14:37	04.15.2020 14:52	04.15.2020 14:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		294 4.99	14.9 4.95	332 4.97	<5.04 5.04	75.9 4.99	362 4.96
TPH By SW8015 Mod	<i>Extracted:</i>	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00
	<i>Analyzed:</i>	04.15.2020 13:29	04.15.2020 14:27	04.15.2020 14:47	04.15.2020 15:06	04.15.2020 15:25	04.15.2020 15:44
	<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)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0
Total TPH		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 658819

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Joel Lowry
Project Location: Endeavor

Date Received in Lab: Wed 04.15.2020 10:08
Report Date: 04.16.2020 14:21
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658819-007	658819-008	658819-009	658819-010	658819-011	658819-012
	<i>Field Id:</i>	EW10	WW10	FS11	EW11	WW11	EW12
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00	04.13.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30	04.15.2020 16:30
	<i>Analyzed:</i>	04.16.2020 06:37	04.16.2020 06:57	04.16.2020 07:17	04.16.2020 07:38	04.16.2020 07:58	04.16.2020 08:18
	<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	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00396 0.00396	<0.00400 0.00400	<0.00398 0.00398	<0.00400 0.00400	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50	04.15.2020 11:50
	<i>Analyzed:</i>	04.15.2020 15:14	04.15.2020 15:19	04.15.2020 15:24	04.15.2020 15:29	04.15.2020 15:35	04.15.2020 15:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		882 4.97	104 4.99	308 5.04	14.1 4.98	6.29 5.04	59.7 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00	04.15.2020 12:00
	<i>Analyzed:</i>	04.15.2020 16:03	04.15.2020 16:22	04.15.2020 16:41	04.15.2020 16:59	04.15.2020 17:18	04.15.2020 17:38
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	125 50.0	<50.0 50.0	430 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	53.8 50.0	<50.0 50.0	281 49.9	<50.0 50.0
Total TPH		<49.9 49.9	<49.8 49.8	179 50.0	<50.0 50.0	711 49.9	<50.0 50.0

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 658819

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Joel Lowry
Project Location: Endeavor

Date Received in Lab: Wed 04.15.2020 10:08
Report Date: 04.16.2020 14:21
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 658819-013 Field Id: FS12B Depth: Matrix: SOIL Sampled: 04.13.2020 00:00					
BTEX by EPA 8021B	Extracted: 04.15.2020 16:30 Analyzed: 04.16.2020 08:38 Units/RL: mg/kg RL					
Benzene	<0.00199 0.00199					
Toluene	<0.00199 0.00199					
Ethylbenzene	<0.00199 0.00199					
m,p-Xylenes	<0.00398 0.00398					
o-Xylene	<0.00199 0.00199					
Total Xylenes	<0.00199 0.00199					
Total BTEX	<0.00199 0.00199					
Chloride by EPA 300	Extracted: 04.15.2020 11:50 Analyzed: 04.15.2020 15:45 Units/RL: mg/kg RL					
Chloride	349 4.97					
TPH By SW8015 Mod	Extracted: 04.15.2020 12:00 Analyzed: 04.15.2020 17:57 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<49.9 49.9					
Diesel Range Organics (DRO)	<49.9 49.9					
Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9					
Total TPH	<49.9 49.9					

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Jessica Kramer
Project Manager



Analytical Report 658819

for

Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

New Mexico BW-BX

11573

04.16.2020

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)



04.16.2020

Project Manager: **Joel Lowry**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **658819**

New Mexico BW-BX

Project Address: Endeavor

Joel Lowry:

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) 658819. 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. 658819 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'. The signature is written in a cursive, flowing style.

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 658819****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS4A	S	04.13.2020 00:00		658819-001
FS5A	S	04.13.2020 00:00		658819-002
FS8A	S	04.13.2020 00:00		658819-003
EW8A	S	04.13.2020 00:00		658819-004
FS9A	S	04.13.2020 00:00		658819-005
FS10	S	04.13.2020 00:00		658819-006
EW10	S	04.13.2020 00:00		658819-007
WW10	S	04.13.2020 00:00		658819-008
FS11	S	04.13.2020 00:00		658819-009
EW11	S	04.13.2020 00:00		658819-010
WW11	S	04.13.2020 00:00		658819-011
EW12	S	04.13.2020 00:00		658819-012
FS12B	S	04.13.2020 00:00		658819-013



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 658819

Report Date: 04.16.2020
Date Received: 04.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123171 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7701375-1-BKS,658548-001 S,658548-001 SD,658819-009,658819-005,658819-004,658819-011,658819-001. Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS4A** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-001 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	294	4.99	mg/kg	04.15.2020 14:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 13:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.15.2020 13:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 13:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.15.2020 13:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	04.15.2020 13:29	
o-Terphenyl	84-15-1	89	%	70-130	04.15.2020 13:29	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS4A**
Lab Sample Id: 658819-001

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.16.2020 02:39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.16.2020 02:39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.16.2020 02:39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.16.2020 02:39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.16.2020 02:39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.16.2020 02:39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.16.2020 02:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	04.16.2020 02:39		
4-Bromofluorobenzene	460-00-4	146	%	70-130	04.16.2020 02:39	**	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS5A Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-002 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.9	4.95	mg/kg	04.15.2020 14:26		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 14:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.15.2020 14:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 14:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.15.2020 14:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	04.15.2020 14:27	
o-Terphenyl	84-15-1	87	%	70-130	04.15.2020 14:27	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS5A
Lab Sample Id: 658819-002

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.16.2020 03:58	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.16.2020 03:58	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.16.2020 03:58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.16.2020 03:58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.16.2020 03:58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.16.2020 03:58	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.16.2020 03:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	04.16.2020 03:58		
4-Bromofluorobenzene	460-00-4	116	%	70-130	04.16.2020 03:58		



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS8A** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-003 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	332	4.97	mg/kg	04.15.2020 14:31		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 14:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.15.2020 14:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.15.2020 14:47	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.15.2020 14:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	04.15.2020 14:47	
o-Terphenyl	84-15-1	87	%	70-130	04.15.2020 14:47	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS8A**
Lab Sample Id: 658819-003

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.16.2020 04:18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.16.2020 04:18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.16.2020 04:18	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.16.2020 04:18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.16.2020 04:18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.16.2020 04:18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.16.2020 04:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	04.16.2020 04:18	
4-Bromofluorobenzene	460-00-4	127	%	70-130	04.16.2020 04:18	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW8A** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-004 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.04	5.04	mg/kg	04.15.2020 14:37	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 15:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.15.2020 15:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.15.2020 15:06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.15.2020 15:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	04.15.2020 15:06	
o-Terphenyl	84-15-1	87	%	70-130	04.15.2020 15:06	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW8A**
Lab Sample Id: 658819-004

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 04:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 04:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 04:38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.16.2020 04:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 04:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 04:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 04:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	121	%	70-130	04.16.2020 04:38		
4-Bromofluorobenzene	460-00-4	150	%	70-130	04.16.2020 04:38	**	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS9A** Matrix: **Soil** Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-005 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	75.9	4.99	mg/kg	04.15.2020 14:52		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 15:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.15.2020 15:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 15:25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.15.2020 15:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	04.15.2020 15:25	
o-Terphenyl	84-15-1	86	%	70-130	04.15.2020 15:25	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS9A**
Lab Sample Id: 658819-005

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.16.2020 04:58	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.16.2020 04:58	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.16.2020 04:58	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	04.16.2020 04:58	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.16.2020 04:58	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.16.2020 04:58	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.16.2020 04:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.16.2020 04:58		
4-Bromofluorobenzene	460-00-4	140	%	70-130	04.16.2020 04:58	**	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS10** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-006 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	362	4.96	mg/kg	04.15.2020 14:58		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 15:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.15.2020 15:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 15:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.15.2020 15:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-130	04.15.2020 15:44	
o-Terphenyl	84-15-1	89	%	70-130	04.15.2020 15:44	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS10**
Lab Sample Id: 658819-006

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.16.2020 05:18	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.16.2020 05:18	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.16.2020 05:18	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	04.16.2020 05:18	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.16.2020 05:18	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.16.2020 05:18	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.16.2020 05:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.16.2020 05:18		
4-Bromofluorobenzene	460-00-4	120	%	70-130	04.16.2020 05:18		



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW10** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-007 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	882	4.97	mg/kg	04.15.2020 15:14		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 16:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.15.2020 16:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.15.2020 16:03	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.15.2020 16:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	04.15.2020 16:03	
o-Terphenyl	84-15-1	88	%	70-130	04.15.2020 16:03	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW10**
Lab Sample Id: 658819-007

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.16.2020 06:37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.16.2020 06:37	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.16.2020 06:37	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	04.16.2020 06:37	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.16.2020 06:37	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.16.2020 06:37	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.16.2020 06:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	04.16.2020 06:37		
4-Bromofluorobenzene	460-00-4	112	%	70-130	04.16.2020 06:37		



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW10** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-008 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	104	4.99	mg/kg	04.15.2020 15:19		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.15.2020 16:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.15.2020 16:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.15.2020 16:22	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.15.2020 16:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	04.15.2020 16:22	
o-Terphenyl	84-15-1	88	%	70-130	04.15.2020 16:22	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW10**
Lab Sample Id: 658819-008

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 06:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 06:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 06:57	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.16.2020 06:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 06:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 06:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 06:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	117	%	70-130	04.16.2020 06:57	
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.16.2020 06:57	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS11** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-009 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	308	5.04	mg/kg	04.15.2020 15:24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 16:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	125	50.0	mg/kg	04.15.2020 16:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	53.8	50.0	mg/kg	04.15.2020 16:41		1
Total TPH	PHC635	179	50.0	mg/kg	04.15.2020 16:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	04.15.2020 16:41	
o-Terphenyl	84-15-1	88	%	70-130	04.15.2020 16:41	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS11**
Lab Sample Id: 658819-009

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.16.2020 07:17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.16.2020 07:17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.16.2020 07:17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.16.2020 07:17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.16.2020 07:17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.16.2020 07:17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.16.2020 07:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	139	%	70-130	04.16.2020 07:17	**	
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.16.2020 07:17		



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW11** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-010 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.1	4.98	mg/kg	04.15.2020 15:29		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 16:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.15.2020 16:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 16:59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.15.2020 16:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	04.15.2020 16:59	
o-Terphenyl	84-15-1	87	%	70-130	04.15.2020 16:59	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW11**
Lab Sample Id: 658819-010

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 07:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 07:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 07:38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.16.2020 07:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 07:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 07:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 07:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.16.2020 07:38		
4-Bromofluorobenzene	460-00-4	130	%	70-130	04.16.2020 07:38		



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW11** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-011 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.29	5.04	mg/kg	04.15.2020 15:35		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 17:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	430	49.9	mg/kg	04.15.2020 17:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	281	49.9	mg/kg	04.15.2020 17:18		1
Total TPH	PHC635	711	49.9	mg/kg	04.15.2020 17:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	04.15.2020 17:18	
o-Terphenyl	84-15-1	85	%	70-130	04.15.2020 17:18	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW11**
Lab Sample Id: 658819-011

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.16.2020 07:58	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.16.2020 07:58	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.16.2020 07:58	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.16.2020 07:58	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.16.2020 07:58	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.16.2020 07:58	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.16.2020 07:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	131	%	70-130	04.16.2020 07:58	**	
1,4-Difluorobenzene	540-36-3	117	%	70-130	04.16.2020 07:58		



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW12** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-012 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	59.7	5.00	mg/kg	04.15.2020 15:40		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.15.2020 17:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.15.2020 17:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 17:38	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.15.2020 17:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	04.15.2020 17:38	
o-Terphenyl	84-15-1	86	%	70-130	04.15.2020 17:38	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW12**
Lab Sample Id: 658819-012

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 08:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 08:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 08:18	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.16.2020 08:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 08:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 08:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 08:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	127	%	70-130	04.16.2020 08:18		
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.16.2020 08:18		



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS12B** Matrix: Soil Date Received: 04.15.2020 10:08
 Lab Sample Id: 658819-013 Date Collected: 04.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 04.15.2020 11:50 Basis: Wet Weight
 Seq Number: 3123140

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	349	4.97	mg/kg	04.15.2020 15:45		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.15.2020 12:00 Basis: Wet Weight
 Seq Number: 3123157

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.15.2020 17:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.15.2020 17:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.15.2020 17:57	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.15.2020 17:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	04.15.2020 17:57	
o-Terphenyl	84-15-1	86	%	70-130	04.15.2020 17:57	



Certificate of Analytical Results 658819

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS12B**
Lab Sample Id: 658819-013

Matrix: Soil
Date Collected: 04.13.2020 00:00

Date Received: 04.15.2020 10:08

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 16:30

Basis: Wet Weight

Seq Number: 3123171

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.16.2020 08:38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.16.2020 08:38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.16.2020 08:38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.16.2020 08:38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.16.2020 08:38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.16.2020 08:38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.16.2020 08:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	125	%	70-130	04.16.2020 08:38		
1,4-Difluorobenzene	540-36-3	113	%	70-130	04.16.2020 08:38		



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
New Mexico BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3123140

MB Sample Id: 7701316-1-BLK

Matrix: Solid

LCS Sample Id: 7701316-1-BKS

Prep Method: E300P

Date Prep: 04.15.2020

LCSD Sample Id: 7701316-1-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	242	97	245	98	90-110	1	20	mg/kg	04.15.2020 13:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3123140

Parent Sample Id: 658788-001

Matrix: Soil

MS Sample Id: 658788-001 S

Prep Method: E300P

Date Prep: 04.15.2020

MSD Sample Id: 658788-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	769	250	997	91	1000	92	90-110	0	20	mg/kg	04.15.2020 13:28	

Analytical Method: Chloride by EPA 300

Seq Number: 3123140

Parent Sample Id: 658819-004

Matrix: Soil

MS Sample Id: 658819-004 S

Prep Method: E300P

Date Prep: 04.15.2020

MSD Sample Id: 658819-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.04	252	255	101	259	103	90-110	2	20	mg/kg	04.15.2020 14:42	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123157

MB Sample Id: 7701326-1-BLK

Matrix: Solid

LCS Sample Id: 7701326-1-BKS

Prep Method: SW8015P

Date Prep: 04.15.2020

LCSD Sample Id: 7701326-1-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	860	86	827	83	70-130	4	20	mg/kg	04.15.2020 12:51	
Diesel Range Organics (DRO)	<50.0	1000	892	89	851	85	70-130	5	20	mg/kg	04.15.2020 12:51	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	81		101		98		70-130	%	04.15.2020 12:51
o-Terphenyl	85		96		89		70-130	%	04.15.2020 12:51

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123157

Matrix: Solid

MB Sample Id: 7701326-1-BLK

Prep Method: SW8015P

Date Prep: 04.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.15.2020 12:32	

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 New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123157

Parent Sample Id: 658819-001

Matrix: Soil

MS Sample Id: 658819-001 S

Prep Method: SW8015P

Date Prep: 04.15.2020

MSD Sample Id: 658819-001 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	842	84	835	84	70-130	1	20	mg/kg	04.15.2020 13:48	
Diesel Range Organics (DRO)	<49.9	997	876	88	869	87	70-130	1	20	mg/kg	04.15.2020 13:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		103		70-130	%	04.15.2020 13:48
o-Terphenyl	94		94		70-130	%	04.15.2020 13:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123171

MB Sample Id: 7701375-1-BLK

Matrix: Solid

LCS Sample Id: 7701375-1-BKS

Prep Method: SW5030B

Date Prep: 04.15.2020

LCSD Sample Id: 7701375-1-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	0.109	109	0.120	120	70-130	10	35	mg/kg	04.15.2020 22:59	
Toluene	<0.00200	0.100	0.107	107	0.108	108	70-130	1	35	mg/kg	04.15.2020 22:59	
Ethylbenzene	<0.00200	0.100	0.107	107	0.106	106	70-130	1	35	mg/kg	04.15.2020 22:59	
m,p-Xylenes	<0.00400	0.200	0.217	109	0.210	105	70-130	3	35	mg/kg	04.15.2020 22:59	
o-Xylene	<0.00200	0.100	0.114	114	0.109	109	70-130	4	35	mg/kg	04.15.2020 22:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	94		103		102		70-130	%	04.15.2020 22:59
4-Bromofluorobenzene	116		134	**	127		70-130	%	04.15.2020 22:59

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123171

Parent Sample Id: 658548-001

Matrix: Soil

MS Sample Id: 658548-001 S

Prep Method: SW5030B

Date Prep: 04.15.2020

MSD Sample Id: 658548-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00203	0.101	0.0794	79	0.0681	67	70-130	15	35	mg/kg	04.15.2020 23:39	X
Toluene	0.0262	0.101	0.146	119	0.153	126	70-130	5	35	mg/kg	04.15.2020 23:39	
Ethylbenzene	0.00860	0.101	0.0816	72	0.0727	63	70-130	12	35	mg/kg	04.15.2020 23:39	X
m,p-Xylenes	0.0963	0.203	0.448	173	0.481	190	70-130	7	35	mg/kg	04.15.2020 23:39	X
o-Xylene	0.0421	0.101	0.199	155	0.217	173	70-130	9	35	mg/kg	04.15.2020 23:39	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	74		86		70-130	%	04.15.2020 23:39
4-Bromofluorobenzene	186	**	205	**	70-130	%	04.15.2020 23:39

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. = 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: 14Apr'20
 Met: 22.00 LBS
 DV: 0.00
 TOTAL: 0.00
 SHIPPING: 0.00
 SPECIAL: 0.00
 HANDLING: 0.00
 TRACK: 4705 2523 3929
 Sves: PRIORITY OVERNIGHT HLD
 Tampa, FL (813) 620-2000 Tallahassee, FL
 Hobbs, NM (505) 252-2000
 Atlanta, GA (770) 449-8800

Ship No: 1056619
 0.00
 0.00
 0.00

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Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Livingston, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@elechenr.com + Client

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐ State of Project:	
Reporting Level ☐ Level I ☐ PST/UST ☐ TRR ☐ Level II ☐	Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	New Mexico BW-BX	Turn Around	
Project Number:	11573	Routine:	☒
Project Location:	Endeavor	Rush:	☐
Sampler's Name:	Eric Mejia	Due Date:	
PO #:			

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Well Ice:	Yes ☒ No ☐
Temperature (°C):	20.0	Thermometer ID:	19		
Received Inact:	Yes ☐ No ☒	Correction Factor:	-0.3		
Cooler Custody Seals:	Yes ☐ No ☒	Total Containers:			
Sample Custody Seals:	Yes ☐ No ☒				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST																	
FS 4A	S	4-13-20			Chloride E300																	
FS 5A	S	4-13-20			BTEX 8021																	
FS 8A	S	4-13-20			TPH Modified Ext																	
EW 8A	S	4-13-20			TPH TX1005																	
FS 9A	S	4-13-20																				
FS 10	S	4-13-20																				
EW 10	S	4-13-20																				
FS 11	S	4-13-20																				
EW 11	S	4-13-20																				

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 SP 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 \$12.00 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
Eric Mejia	Eric Mejia	4/14/20	Eric Mejia	Eric Mejia	4/15/20

XENCO**Chain of Custody**Work Order No: 10556104

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:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Livingston, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@elechemv.com + Client

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project: _____ Reporting Level: ☐ Level I ☐ Level II ☐ PST/UST ☐ TRR ☐ Level I ☐ Deliverables: EDD ☐ ADAPT ☐ Other: _____		Work Order Comments _____ _____ _____
---	--	---

Project Name:	New Mexico BW-BX	Turn Around	
Project Number:	11573	Routine:	☒
Project Location:	Endeavor	Rush:	☐
Sampler's Name:	Eric Mejia	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
	Temperature (°C):	5.0/6.5	Thermometer ID	
	Received In tact:	Yes ☒ No ☐		
	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	ANALYSIS REQUEST	Preservative Codes
WW11	S	4-13-20			Chloride E300	☒	HN03: HN
EW12	S	4-13-20			BTEX 8021	☒	H2SO4: H2
FS12B	S	4-13-20			TPH Modified Ext	☒	HCL: HL
					TPH TX1005	☒	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 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
<i>Eric Mejia</i>	<i>Joel Lowry</i>	4/14/20	<i>Eric Mejia</i>	<i>Joel Lowry</i>	

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.15.2020 10.08.00 AM

Work Order #: 658819

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

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: 04.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.15.2020



Certificate of Analysis Summary 658968

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexcio BW-BX

Project Id:

Contact: Joel Lowry

Project Location: Endeavor

Date Received in Lab: Thu 04.16.2020 10:40

Report Date: 04.20.2020 09:16

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	658968-001	658968-002	658968-003	658968-004	658968-005	658968-006
	<i>Field Id:</i>	WW16	WW17	EW15	EW13A	EW14	FS13B
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.14.2020 00:00	04.14.2020 00:00	04.14.2020 00:00	04.14.2020 00:00	04.14.2020 00:00	04.14.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.16.2020 11:30	04.16.2020 11:30	04.16.2020 11:30	04.16.2020 11:30	04.16.2020 11:30	04.16.2020 11:30
	<i>Analyzed:</i>	04.16.2020 19:42	04.16.2020 20:02	04.16.2020 20:23	04.16.2020 20:43	04.16.2020 21:03	04.16.2020 21:23
	<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	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	0.00211 0.00201	<0.00199 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
m,p-Xylenes		<0.00399 0.00399	<0.00399 0.00399	<0.00400 0.00400	<0.00400 0.00400	<0.00402 0.00402	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	0.00211 0.00201	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	04.16.2020 17:25	04.16.2020 17:25	04.16.2020 17:25	04.16.2020 17:25	04.16.2020 17:25	04.16.2020 17:25
	<i>Analyzed:</i>	04.16.2020 18:36	04.16.2020 19:50	04.16.2020 18:57	04.16.2020 19:02	04.16.2020 19:08	04.16.2020 19:23
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		149 5.01	83.4 4.98	631 4.98	<5.01 5.01	59.1 5.00	561 4.99
TPH By SW8015 Mod	<i>Extracted:</i>	04.16.2020 15:00	04.16.2020 15:00	04.16.2020 15:00	04.16.2020 15:00	04.16.2020 15:00	04.16.2020 15:00
	<i>Analyzed:</i>	04.17.2020 08:06	04.17.2020 09:02	04.17.2020 09:23	04.17.2020 09:41	04.17.2020 10:00	04.17.2020 10:19
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 658968

for

Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

New Mexcio BW-BX

04.20.2020

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)



04.20.2020

Project Manager: **Joel Lowry**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **658968**

New Mexcio BW-BX

Project Address: Endeavor

Joel Lowry:

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) 658968. 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. 658968 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'. The signature is written in a cursive, flowing style.

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 658968****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexcio BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WW16	S	04.14.2020 00:00		658968-001
WW17	S	04.14.2020 00:00		658968-002
EW15	S	04.14.2020 00:00		658968-003
EW13A	S	04.14.2020 00:00		658968-004
EW14	S	04.14.2020 00:00		658968-005
FS13B	S	04.14.2020 00:00		658968-006



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexcio BW-BX

Project ID:
Work Order Number(s): 658968

Report Date: 04.20.2020
Date Received: 04.16.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123281 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7701458-1-BKS,7701458-1-BSD,658547-005 S,658547-005 SD,658968-005,658968-004,658968-003,658968-002,658968-006,658968-001.

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



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexcio BW-BX

Sample Id: **WW16**
Lab Sample Id: 658968-001

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3123290

Prep Method: E300P

% Moisture:

Date Prep: 04.16.2020 17:25

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	149	5.01	mg/kg	04.16.2020 18:36		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123324

Prep Method: SW8015P

% Moisture:

Date Prep: 04.16.2020 15:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.17.2020 08:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.17.2020 08:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.17.2020 08:06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.17.2020 08:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	04.17.2020 08:06	
o-Terphenyl	84-15-1	85	%	70-130	04.17.2020 08:06	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **WW16**
Lab Sample Id: 658968-001

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.16.2020 11:30

Basis: Wet Weight

Seq Number: 3123281

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 19:42	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 19:42	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 19:42	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.16.2020 19:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 19:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 19:42	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 19:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.16.2020 19:42		
4-Bromofluorobenzene	460-00-4	142	%	70-130	04.16.2020 19:42	**	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexcio BW-BX

Sample Id: **WW17**
Lab Sample Id: 658968-002

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3123290

Prep Method: E300P

% Moisture:

Date Prep: 04.16.2020 17:25

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	83.4	4.98	mg/kg	04.16.2020 19:50		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123324

Prep Method: SW8015P

% Moisture:

Date Prep: 04.16.2020 15:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.17.2020 09:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.17.2020 09:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.17.2020 09:02	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.17.2020 09:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	04.17.2020 09:02	
o-Terphenyl	84-15-1	86	%	70-130	04.17.2020 09:02	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **WW17**
Lab Sample Id: 658968-002

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.16.2020 11:30

Basis: Wet Weight

Seq Number: 3123281

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 20:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 20:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 20:02	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.16.2020 20:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 20:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 20:02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 20:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	120	%	70-130	04.16.2020 20:02		
4-Bromofluorobenzene	460-00-4	150	%	70-130	04.16.2020 20:02	**	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexcio BW-BX

Sample Id: **EW15**
Lab Sample Id: 658968-003

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3123290

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Date Prep: 04.16.2020 17:25

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	631	4.98	mg/kg	04.16.2020 18:57		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123324

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Date Prep: 04.16.2020 15:00

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.17.2020 09:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.17.2020 09:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.17.2020 09:23	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.17.2020 09:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	04.17.2020 09:23	
o-Terphenyl	84-15-1	85	%	70-130	04.17.2020 09:23	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **EW15**
Lab Sample Id: 658968-003

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.16.2020 11:30

Basis: Wet Weight

Seq Number: 3123281

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 20:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 20:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 20:23	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.16.2020 20:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 20:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 20:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 20:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	122	%	70-130	04.16.2020 20:23		
4-Bromofluorobenzene	460-00-4	134	%	70-130	04.16.2020 20:23	**	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **EW13A** Matrix: Soil Date Received: 04.16.2020 10:40
 Lab Sample Id: 658968-004 Date Collected: 04.14.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.16.2020 17:25 Basis: Wet Weight
 Seq Number: 3123290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.01	5.01	mg/kg	04.16.2020 19:02	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.16.2020 15:00 Basis: Wet Weight
 Seq Number: 3123324

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.17.2020 09:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.17.2020 09:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.17.2020 09:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.17.2020 09:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	04.17.2020 09:41	
o-Terphenyl	84-15-1	84	%	70-130	04.17.2020 09:41	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **EW13A**
Lab Sample Id: 658968-004

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.16.2020 11:30

Basis: Wet Weight

Seq Number: 3123281

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.16.2020 20:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.16.2020 20:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.16.2020 20:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.16.2020 20:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.16.2020 20:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.16.2020 20:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.16.2020 20:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	141	%	70-130	04.16.2020 20:43	**	
1,4-Difluorobenzene	540-36-3	116	%	70-130	04.16.2020 20:43		



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX

New Mexcio BW-BX

Sample Id: **EW14**
Lab Sample Id: 658968-005

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3123290

Prep Method: E300P

% Moisture:

Date Prep: 04.16.2020 17:25

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	59.1	5.00	mg/kg	04.16.2020 19:08		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123324

Prep Method: SW8015P

% Moisture:

Date Prep: 04.16.2020 15:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.17.2020 10:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.17.2020 10:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.17.2020 10:00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.17.2020 10:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	04.17.2020 10:00	
o-Terphenyl	84-15-1	91	%	70-130	04.17.2020 10:00	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **EW14**
Lab Sample Id: 658968-005

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.16.2020 11:30

Basis: Wet Weight

Seq Number: 3123281

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.16.2020 21:03	U	1
Toluene	108-88-3	0.00211	0.00201	mg/kg	04.16.2020 21:03		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.16.2020 21:03	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.16.2020 21:03	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.16.2020 21:03	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.16.2020 21:03	U	1
Total BTEX		0.00211	0.00201	mg/kg	04.16.2020 21:03		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	04.16.2020 21:03		
4-Bromofluorobenzene	460-00-4	139	%	70-130	04.16.2020 21:03	**	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **FS13B** Matrix: Soil Date Received: 04.16.2020 10:40
 Lab Sample Id: 658968-006 Date Collected: 04.14.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.16.2020 17:25 Basis: Wet Weight
 Seq Number: 3123290

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	561	4.99	mg/kg	04.16.2020 19:23		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.16.2020 15:00 Basis: Wet Weight
 Seq Number: 3123324

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.17.2020 10:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.17.2020 10:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.17.2020 10:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.17.2020 10:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	04.17.2020 10:19	
o-Terphenyl	84-15-1	84	%	70-130	04.17.2020 10:19	



Certificate of Analytical Results 658968

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexcio BW-BX

Sample Id: **FS13B**
Lab Sample Id: 658968-006

Matrix: Soil
Date Collected: 04.14.2020 00:00

Date Received: 04.16.2020 10:40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.16.2020 11:30

Basis: Wet Weight

Seq Number: 3123281

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.16.2020 21:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.16.2020 21:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.16.2020 21:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.16.2020 21:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.16.2020 21:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.16.2020 21:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.16.2020 21:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	152	%	70-130	04.16.2020 21:23	**	
1,4-Difluorobenzene	540-36-3	123	%	70-130	04.16.2020 21:23		



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
New Mexcio BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3123290

MB Sample Id: 7701433-1-BLK

Matrix: Solid

LCS Sample Id: 7701433-1-BKS

Prep Method: E300P

Date Prep: 04.16.2020

LCSD Sample Id: 7701433-1-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	245	98	90-110	1	20	mg/kg	04.16.2020 18:26	

Analytical Method: Chloride by EPA 300

Seq Number: 3123290

Parent Sample Id: 658968-001

Matrix: Soil

MS Sample Id: 658968-001 S

Prep Method: E300P

Date Prep: 04.16.2020

MSD Sample Id: 658968-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	149	251	398	99	409	104	90-110	3	20	mg/kg	04.16.2020 18:41	

Analytical Method: Chloride by EPA 300

Seq Number: 3123290

Parent Sample Id: 658968-002

Matrix: Soil

MS Sample Id: 658968-002 S

Prep Method: E300P

Date Prep: 04.16.2020

MSD Sample Id: 658968-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	83.4	249	341	103	342	104	90-110	0	20	mg/kg	04.16.2020 19:55	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123324

MB Sample Id: 7701424-1-BLK

Matrix: Solid

LCS Sample Id: 7701424-1-BKS

Prep Method: SW8015P

Date Prep: 04.16.2020

LCSD Sample Id: 7701424-1-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	866	87	832	83	70-130	4	20	mg/kg	04.17.2020 07:28	
Diesel Range Organics (DRO)	<50.0	1000	925	93	886	89	70-130	4	20	mg/kg	04.17.2020 07:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		100		96		70-130	%	04.17.2020 07:28
o-Terphenyl	87		93		89		70-130	%	04.17.2020 07:28

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123324

Matrix: Solid

MB Sample Id: 7701424-1-BLK

Prep Method: SW8015P

Date Prep: 04.16.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.17.2020 07:09	

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 New Mexcio BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123324

Parent Sample Id: 658968-001

Matrix: Soil

MS Sample Id: 658968-001 S

Prep Method: SW8015P

Date Prep: 04.16.2020

MSD Sample Id: 658968-001 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)	<49.8	996	779	78	805	81	70-130	3	20	mg/kg	04.17.2020 08:25	
Diesel Range Organics (DRO)	<49.8	996	843	85	869	87	70-130	3	20	mg/kg	04.17.2020 08:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		96		70-130	%	04.17.2020 08:25
o-Terphenyl	90		89		70-130	%	04.17.2020 08:25

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123281

MB Sample Id: 7701458-1-BLK

Matrix: Solid

LCS Sample Id: 7701458-1-BKS

Prep Method: SW5030B

Date Prep: 04.16.2020

LCSD Sample Id: 7701458-1-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	0.122	122	0.118	118	70-130	3	35	mg/kg	04.16.2020 12:43	
Toluene	<0.00200	0.100	0.116	116	0.111	111	70-130	4	35	mg/kg	04.16.2020 12:43	
Ethylbenzene	<0.00200	0.100	0.119	119	0.114	114	70-130	4	35	mg/kg	04.16.2020 12:43	
m,p-Xylenes	<0.00400	0.200	0.237	119	0.227	114	70-130	4	35	mg/kg	04.16.2020 12:43	
o-Xylene	<0.00200	0.100	0.119	119	0.115	115	70-130	3	35	mg/kg	04.16.2020 12:43	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		107		106		70-130	%	04.16.2020 12:43
4-Bromofluorobenzene	121		133	**	133	**	70-130	%	04.16.2020 12:43

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123281

Parent Sample Id: 658547-005

Matrix: Soil

MS Sample Id: 658547-005 S

Prep Method: SW5030B

Date Prep: 04.16.2020

MSD Sample Id: 658547-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00216	0.108	0.129	119	0.128	119	70-130	1	35	mg/kg	04.16.2020 13:23	
Toluene	<0.00216	0.108	0.136	126	0.133	123	70-130	2	35	mg/kg	04.16.2020 13:23	
Ethylbenzene	<0.00216	0.108	0.136	126	0.135	125	70-130	1	35	mg/kg	04.16.2020 13:23	
m,p-Xylenes	<0.00433	0.216	0.274	127	0.272	126	70-130	1	35	mg/kg	04.16.2020 13:23	
o-Xylene	<0.00216	0.108	0.137	127	0.135	125	70-130	1	35	mg/kg	04.16.2020 13:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	112		116		70-130	%	04.16.2020 13:23
4-Bromofluorobenzene	141	**	144	**	70-130	%	04.16.2020 13:23

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



US968

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level: ☐ Level I ☐ : PST/UST ☐ TRRF ☐ Level II ☐

Deliverables: EDD ☐ ADAPT ☐ Other: _____

Notes: 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.

Total 200.1 / 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

1.9

Revised Date 10/14/19 Rev. 2019.1

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.16.2020 10.40.00 AM

Work Order #: 658968

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.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?	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: 04.16.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.17.2020



Certificate of Analysis Summary 659138

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Endeavor

Date Received in Lab: Fri 04.17.2020 11:15
Report Date: 04.24.2020 07:56
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659138-001	659138-002	659138-003	659138-004	659138-005	659138-006
	<i>Field Id:</i>	EW19	EW18	ES16-2	EW16A	EW16-1	EW-16-2
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.15.2020 00:00	04.15.2020 00:00	04.15.2020 00:00	04.15.2020 00:00	04.15.2020 00:00	04.15.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.20.2020 15:30	04.20.2020 15:30	04.21.2020 17:00	04.22.2020 12:30	04.22.2020 12:30	04.22.2020 12:30
	<i>Analyzed:</i>	04.20.2020 18:37	04.20.2020 18:57	04.22.2020 06:56	04.22.2020 17:51	04.22.2020 19:49	04.22.2020 20:09
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00402 0.00402	<0.00400 0.00400	<0.00400 0.00400	<0.00402 0.00402
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	04.17.2020 14:25	04.17.2020 14:25	04.17.2020 14:25	04.17.2020 14:25	04.17.2020 14:25	04.17.2020 14:25
	<i>Analyzed:</i>	04.17.2020 18:09	04.17.2020 18:14	04.17.2020 18:20	04.17.2020 18:25	04.17.2020 18:30	04.17.2020 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		14.3 5.03	69.5 5.05	525 5.05	387 5.02	378 5.01	648 5.02
TPH By SW8015 Mod	<i>Extracted:</i>	04.17.2020 14:00	04.17.2020 14:00	04.17.2020 14:00	04.17.2020 14:00	04.17.2020 14:00	04.17.2020 14:00
	<i>Analyzed:</i>	04.17.2020 21:33	04.17.2020 22:36	04.17.2020 22:57	04.17.2020 23:18	04.17.2020 23:39	04.18.2020 00:00
	<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	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0
Total TPH		<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 659138

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Endeavor

Date Received in Lab: Fri 04.17.2020 11:15
Report Date: 04.24.2020 07:56
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659138-007	659138-008	659138-009	659138-010	659138-011	
	<i>Field Id:</i>	EW17-A	FS20	SEW20	EW20	FS18-1A	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	04.15.2020 00:00	04.15.2020 00:00	04.15.2020 00:00	04.15.2020 00:00	04.15.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	04.22.2020 12:30	04.22.2020 12:30	04.22.2020 12:30	04.22.2020 12:30	04.22.2020 12:30	
	<i>Analyzed:</i>	04.22.2020 20:29	04.22.2020 20:49	04.22.2020 21:09	04.22.2020 21:30	04.22.2020 21:50	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00398 0.00398	<0.00399 0.00399	<0.00399 0.00399	
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	
Chloride by EPA 300	<i>Extracted:</i>	04.17.2020 17:30	04.17.2020 17:30	04.17.2020 17:30	04.17.2020 17:30	04.17.2020 17:30	
	<i>Analyzed:</i>	04.17.2020 19:32	04.17.2020 19:48	04.17.2020 19:53	04.17.2020 19:58	04.17.2020 20:03	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		35.3 4.97	140 5.02	8.83 5.02	10.1 4.98	515 4.96	
TPH By SW8015 Mod	<i>Extracted:</i>	04.17.2020 14:00	04.17.2020 14:00	04.17.2020 14:00	04.17.2020 14:00	04.17.2020 14:00	
	<i>Analyzed:</i>	04.18.2020 00:21	04.18.2020 00:42	04.18.2020 01:03	04.18.2020 01:24	04.18.2020 02:06	
	<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	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	
Total TPH		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 659138

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

New Mexico BW-BX

11573

04.24.2020

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)



04.24.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **659138**

New Mexico BW-BX

Project Address: Endeavor

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 XENCO Report Number(s) 659138. 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. 659138 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'. The signature is written in a cursive, flowing style.

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 659138****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EW19	S	04.15.2020 00:00		659138-001
EW18	S	04.15.2020 00:00		659138-002
ES16-2	S	04.15.2020 00:00		659138-003
EW16A	S	04.15.2020 00:00		659138-004
EW16-1	S	04.15.2020 00:00		659138-005
EW-16-2	S	04.15.2020 00:00		659138-006
EW17-A	S	04.15.2020 00:00		659138-007
FS20	S	04.15.2020 00:00		659138-008
SEW20	S	04.15.2020 00:00		659138-009
EW20	S	04.15.2020 00:00		659138-010
FS18-1A	S	04.15.2020 00:00		659138-011

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: New Mexico BW-BX**

Project ID: 11573
Work Order Number(s): 659138

Report Date: 04.24.2020
Date Received: 04.17.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3123573 BTEX by EPA 8021B

Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 659138-001, -002

Lab Sample ID 659138-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene, Ethylbenzene, Toluene, o-Xylene recovered below QC limits in the Matrix Spike. m,p-Xylenes 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: 659138-001, -002.

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

Surrogate 1,4-Difluorobenzene recovered below QC limits. Matrix interferences is suspected.

Samples affected are: 659138-001 S.

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

Samples affected are: 659138-001 S, 659138-001 SD.

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

Matrix Spike (MS) had a misinjection. BKS, BSD & BLK were within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3123800 BTEX by EPA 8021B

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



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW19** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-001 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 14:25 Basis: Wet Weight
 Seq Number: 3123413

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.3	5.03	mg/kg	04.17.2020 18:09		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.17.2020 21:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.17.2020 21:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.17.2020 21:33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.17.2020 21:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	04.17.2020 21:33	
o-Terphenyl	84-15-1	120	%	70-130	04.17.2020 21:33	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW19**
Lab Sample Id: 659138-001

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.20.2020 15:30

Basis: Wet Weight

Seq Number: 3123573

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.20.2020 18:37	UXF	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.20.2020 18:37	UXF	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.20.2020 18:37	UXF	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.20.2020 18:37	UXF	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.20.2020 18:37	UXF	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.20.2020 18:37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.20.2020 18:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	04.20.2020 18:37		
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.20.2020 18:37		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW18** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-002 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 14:25 Basis: Wet Weight
 Seq Number: 3123413

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	69.5	5.05	mg/kg	04.17.2020 18:14		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.17.2020 22:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.17.2020 22:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.17.2020 22:36	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.17.2020 22:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	04.17.2020 22:36	
o-Terphenyl	84-15-1	118	%	70-130	04.17.2020 22:36	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW18**
Lab Sample Id: 659138-002

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.20.2020 15:30

Basis: Wet Weight

Seq Number: 3123573

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.20.2020 18:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.20.2020 18:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.20.2020 18:57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.20.2020 18:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.20.2020 18:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.20.2020 18:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.20.2020 18:57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.20.2020 18:57		
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.20.2020 18:57		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **ES16-2** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-003 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 14:25 Basis: Wet Weight
 Seq Number: 3123413

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	525	5.05	mg/kg	04.17.2020 18:20		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.17.2020 22:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.17.2020 22:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.17.2020 22:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.17.2020 22:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	04.17.2020 22:57	
o-Terphenyl	84-15-1	120	%	70-130	04.17.2020 22:57	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **ES16-2**
Lab Sample Id: 659138-003

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.21.2020 17:00

Basis: Wet Weight

Seq Number: 3123800

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.22.2020 06:56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.22.2020 06:56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.22.2020 06:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.22.2020 06:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.22.2020 06:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.22.2020 06:56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.22.2020 06:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.22.2020 06:56		
4-Bromofluorobenzene	460-00-4	110	%	70-130	04.22.2020 06:56		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW16A** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-004 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 14:25 Basis: Wet Weight
 Seq Number: 3123413

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	387	5.02	mg/kg	04.17.2020 18:25		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.17.2020 23:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.17.2020 23:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.17.2020 23:18	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.17.2020 23:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	04.17.2020 23:18	
o-Terphenyl	84-15-1	119	%	70-130	04.17.2020 23:18	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW16A**
Lab Sample Id: 659138-004

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.22.2020 17:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.22.2020 17:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.22.2020 17:51	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.22.2020 17:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.22.2020 17:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.22.2020 17:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.22.2020 17:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.22.2020 17:51		
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.22.2020 17:51		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW16-1**
Lab Sample Id: 659138-005

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3123413

Prep Method: E300P

% Moisture:

Date Prep: 04.17.2020 14:25

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	378	5.01	mg/kg	04.17.2020 18:30		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123408

Prep Method: SW8015P

% Moisture:

Date Prep: 04.17.2020 14:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.17.2020 23:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.17.2020 23:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.17.2020 23:39	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.17.2020 23:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	04.17.2020 23:39	
o-Terphenyl	84-15-1	120	%	70-130	04.17.2020 23:39	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW16-1**
Lab Sample Id: 659138-005

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.22.2020 19:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.22.2020 19:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.22.2020 19:49	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.22.2020 19:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.22.2020 19:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.22.2020 19:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.22.2020 19:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.22.2020 19:49		
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.22.2020 19:49		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW-16-2** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-006 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 14:25 Basis: Wet Weight
 Seq Number: 3123413

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	648	5.02	mg/kg	04.17.2020 18:35		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.18.2020 00:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.18.2020 00:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.18.2020 00:00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.18.2020 00:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	04.18.2020 00:00	
o-Terphenyl	84-15-1	120	%	70-130	04.18.2020 00:00	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW-16-2**
Lab Sample Id: 659138-006

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	04.22.2020 20:09	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	04.22.2020 20:09	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	04.22.2020 20:09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	04.22.2020 20:09	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	04.22.2020 20:09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	04.22.2020 20:09	U	1
Total BTEX		<0.00201	0.00201	mg/kg	04.22.2020 20:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	04.22.2020 20:09		
1,4-Difluorobenzene	540-36-3	98	%	70-130	04.22.2020 20:09		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW17-A** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-007 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 17:30 Basis: Wet Weight
 Seq Number: 3123414

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.3	4.97	mg/kg	04.17.2020 19:32		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.18.2020 00:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.18.2020 00:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.18.2020 00:21	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.18.2020 00:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	04.18.2020 00:21	
o-Terphenyl	84-15-1	118	%	70-130	04.18.2020 00:21	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW17-A**
Lab Sample Id: 659138-007

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.22.2020 20:29	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.22.2020 20:29	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.22.2020 20:29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.22.2020 20:29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.22.2020 20:29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.22.2020 20:29	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.22.2020 20:29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	04.22.2020 20:29		
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.22.2020 20:29		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS20** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-008 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 17:30 Basis: Wet Weight
 Seq Number: 3123414

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	140	5.02	mg/kg	04.17.2020 19:48		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.18.2020 00:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.18.2020 00:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.18.2020 00:42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.18.2020 00:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	04.18.2020 00:42	
o-Terphenyl	84-15-1	118	%	70-130	04.18.2020 00:42	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS20**
Lab Sample Id: 659138-008

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.22.2020 20:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.22.2020 20:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.22.2020 20:49	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.22.2020 20:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.22.2020 20:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.22.2020 20:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.22.2020 20:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	04.22.2020 20:49		
1,4-Difluorobenzene	540-36-3	103	%	70-130	04.22.2020 20:49		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **SEW20** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-009 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 17:30 Basis: Wet Weight
 Seq Number: 3123414

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.83	5.02	mg/kg	04.17.2020 19:53		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.18.2020 01:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.18.2020 01:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.18.2020 01:03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.18.2020 01:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	04.18.2020 01:03	
o-Terphenyl	84-15-1	114	%	70-130	04.18.2020 01:03	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **SEW20**
Lab Sample Id: 659138-009

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.22.2020 21:09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.22.2020 21:09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.22.2020 21:09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.22.2020 21:09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.22.2020 21:09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.22.2020 21:09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.22.2020 21:09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	04.22.2020 21:09		
1,4-Difluorobenzene	540-36-3	96	%	70-130	04.22.2020 21:09		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW20** Matrix: Soil Date Received: 04.17.2020 11:15
 Lab Sample Id: 659138-010 Date Collected: 04.15.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.17.2020 17:30 Basis: Wet Weight
 Seq Number: 3123414

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	4.98	mg/kg	04.17.2020 19:58		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.17.2020 14:00 Basis: Wet Weight
 Seq Number: 3123408

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.18.2020 01:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.18.2020 01:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.18.2020 01:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.18.2020 01:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	04.18.2020 01:24	
o-Terphenyl	84-15-1	119	%	70-130	04.18.2020 01:24	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW20**
Lab Sample Id: 659138-010

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.22.2020 21:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.22.2020 21:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.22.2020 21:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.22.2020 21:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.22.2020 21:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.22.2020 21:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.22.2020 21:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	04.22.2020 21:30		
1,4-Difluorobenzene	540-36-3	96	%	70-130	04.22.2020 21:30		



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-1A**
Lab Sample Id: 659138-011

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3123414

Prep Method: E300P

% Moisture:

Date Prep: 04.17.2020 17:30

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	515	4.96	mg/kg	04.17.2020 20:03		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123408

Prep Method: SW8015P

% Moisture:

Date Prep: 04.17.2020 14:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.18.2020 02:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.18.2020 02:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.18.2020 02:06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.18.2020 02:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-130	04.18.2020 02:06	
o-Terphenyl	84-15-1	120	%	70-130	04.18.2020 02:06	



Certificate of Analytical Results 659138

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-1A**
Lab Sample Id: 659138-011

Matrix: Soil
Date Collected: 04.15.2020 00:00

Date Received: 04.17.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 12:30

Basis: Wet Weight

Seq Number: 3123937

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.22.2020 21:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.22.2020 21:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.22.2020 21:50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.22.2020 21:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.22.2020 21:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.22.2020 21:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.22.2020 21:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	04.22.2020 21:50	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.22.2020 21:50	



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
New Mexico BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3123413

MB Sample Id: 7701514-1-BLK

Matrix: Solid

LCS Sample Id: 7701514-1-BKS

Prep Method: E300P

Date Prep: 04.17.2020

LCSD Sample Id: 7701514-1-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	244	98	244	98	90-110	0	20	mg/kg	04.17.2020 16:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3123414

MB Sample Id: 7701526-1-BLK

Matrix: Solid

LCS Sample Id: 7701526-1-BKS

Prep Method: E300P

Date Prep: 04.17.2020

LCSD Sample Id: 7701526-1-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	247	99	241	96	90-110	2	20	mg/kg	04.17.2020 19:21	

Analytical Method: Chloride by EPA 300

Seq Number: 3123413

Parent Sample Id: 659134-001

Matrix: Soil

MS Sample Id: 659134-001 S

Prep Method: E300P

Date Prep: 04.17.2020

MSD Sample Id: 659134-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.24	334	342	101	345	101	90-110	1	20	mg/kg	04.17.2020 16:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3123413

Parent Sample Id: 659134-011

Matrix: Soil

MS Sample Id: 659134-011 S

Prep Method: E300P

Date Prep: 04.17.2020

MSD Sample Id: 659134-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.43	314	322	101	322	101	90-110	0	20	mg/kg	04.17.2020 17:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3123414

Parent Sample Id: 659138-007

Matrix: Soil

MS Sample Id: 659138-007 S

Prep Method: E300P

Date Prep: 04.17.2020

MSD Sample Id: 659138-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	35.3	249	288	101	291	103	90-110	1	20	mg/kg	04.17.2020 19:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3123414

Parent Sample Id: 659201-002

Matrix: Soil

MS Sample Id: 659201-002 S

Prep Method: E300P

Date Prep: 04.17.2020

MSD Sample Id: 659201-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.99	250	275	110	278	111	90-110	1	20	mg/kg	04.17.2020 20:51	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



Etech Environmental & Safety Solution, Inc
New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123408

MB Sample Id: 7701509-1-BLK

Matrix: Solid

LCS Sample Id: 7701509-1-BKS

Prep Method: SW8015P

Date Prep: 04.17.2020

LCSD Sample Id: 7701509-1-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	977	98	1030	103	70-130	5	20	mg/kg	04.17.2020 20:50	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1060	106	70-130	5	20	mg/kg	04.17.2020 20:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		105		108		70-130	%	04.17.2020 20:50
o-Terphenyl	117		110		115		70-130	%	04.17.2020 20:50

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123408

Matrix: Solid

MB Sample Id: 7701509-1-BLK

Prep Method: SW8015P

Date Prep: 04.17.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.17.2020 20:29	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123408

Matrix: Soil

Parent Sample Id: 659138-001

MS Sample Id: 659138-001 S

Prep Method: SW8015P

Date Prep: 04.17.2020

MSD Sample Id: 659138-001 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	970	97	979	98	70-130	1	20	mg/kg	04.17.2020 21:54	
Diesel Range Organics (DRO)	<50.0	999	1030	103	1030	103	70-130	0	20	mg/kg	04.17.2020 21:54	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		114		70-130	%	04.17.2020 21:54
o-Terphenyl	111		111		70-130	%	04.17.2020 21:54

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123573

Matrix: Solid

MB Sample Id: 7701646-1-BLK

LCS Sample Id: 7701646-1-BKS

Prep Method: SW5030B

Date Prep: 04.20.2020

LCSD Sample Id: 7701646-1-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	0.0867	87	0.0925	93	70-130	6	35	mg/kg	04.20.2020 15:46	
Toluene	<0.00200	0.100	0.0861	86	0.0895	90	70-130	4	35	mg/kg	04.20.2020 15:46	
Ethylbenzene	<0.00200	0.100	0.0878	88	0.0905	91	70-130	3	35	mg/kg	04.20.2020 15:46	
m,p-Xylenes	<0.00400	0.200	0.171	86	0.176	88	70-130	3	35	mg/kg	04.20.2020 15:46	
o-Xylene	<0.00200	0.100	0.0877	88	0.0906	91	70-130	3	35	mg/kg	04.20.2020 15:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		97		101		70-130	%	04.20.2020 15:46
4-Bromofluorobenzene	102		102		102		70-130	%	04.20.2020 15:46

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
New Mexico BW-BX

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123800

Matrix: Solid

Prep Method: SW5030B

Date Prep: 04.21.2020

MB Sample Id: 7701749-1-BLK

LCS Sample Id: 7701749-1-BKS

LCSD Sample Id: 7701749-1-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	0.0811	81	0.0801	80	70-130	1	35	mg/kg	04.22.2020 04:34	
Toluene	<0.00200	0.100	0.0797	80	0.0804	80	70-130	1	35	mg/kg	04.22.2020 04:34	
Ethylbenzene	<0.00200	0.100	0.0811	81	0.0830	83	70-130	2	35	mg/kg	04.22.2020 04:34	
m,p-Xylenes	<0.00400	0.200	0.157	79	0.162	81	70-130	3	35	mg/kg	04.22.2020 04:34	
o-Xylene	<0.00200	0.100	0.0818	82	0.0842	84	70-130	3	35	mg/kg	04.22.2020 04:34	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	106		98		98		70-130			%	04.22.2020 04:34	
4-Bromofluorobenzene	102		98		101		70-130			%	04.22.2020 04:34	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123937

Matrix: Solid

Prep Method: SW5030B

Date Prep: 04.22.2020

MB Sample Id: 7701905-1-BLK

LCS Sample Id: 7701905-1-BKS

LCSD Sample Id: 7701905-1-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	0.0756	76	0.0812	81	70-130	7	35	mg/kg	04.22.2020 12:30	
Toluene	<0.00200	0.100	0.0891	89	0.0876	88	70-130	2	35	mg/kg	04.22.2020 12:30	
Ethylbenzene	<0.00200	0.100	0.0959	96	0.0936	94	70-130	2	35	mg/kg	04.22.2020 12:30	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.186	93	70-130	4	35	mg/kg	04.22.2020 12:30	
o-Xylene	<0.00200	0.100	0.0992	99	0.0960	96	70-130	3	35	mg/kg	04.22.2020 12:30	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene	97		104		102		70-130			%	04.22.2020 12:30	
4-Bromofluorobenzene	100		110		108		70-130			%	04.22.2020 12:30	

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123573

Matrix: Soil

Prep Method: SW5030B

Date Prep: 04.20.2020

Parent Sample Id: 659138-001

MS Sample Id: 659138-001 S

MSD Sample Id: 659138-001 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	<0.00199	0	0.126	127	70-130	200	35	mg/kg	04.20.2020 16:56	XF
Toluene	<0.00199	0.0994	<0.00199	0	0.0890	90	70-130	200	35	mg/kg	04.20.2020 16:56	XF
Ethylbenzene	<0.00199	0.0994	<0.00199	0	0.0720	73	70-130	200	35	mg/kg	04.20.2020 16:56	XF
m,p-Xylenes	<0.00398	0.199	<0.00398	0	0.133	67	70-130	200	35	mg/kg	04.20.2020 16:56	XF
o-Xylene	<0.00199	0.0994	<0.00199	0	0.0713	72	70-130	200	35	mg/kg	04.20.2020 16:56	XF
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits			Units	Analysis Date	
1,4-Difluorobenzene			0	**	113		70-130			%	04.20.2020 16:56	
4-Bromofluorobenzene			0	**	49	**	70-130			%	04.20.2020 16:56	

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
New Mexico BW-BX

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123800

Parent Sample Id: 659138-003

Matrix: Soil

MS Sample Id: 659138-003 S

Prep Method: SW5030B

Date Prep: 04.21.2020

MSD Sample Id: 659138-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0894	89	0.0851	85	70-130	5	35	mg/kg	04.22.2020 05:15	
Toluene	<0.00200	0.100	0.0906	91	0.0838	84	70-130	8	35	mg/kg	04.22.2020 05:15	
Ethylbenzene	<0.00200	0.100	0.0936	94	0.0859	86	70-130	9	35	mg/kg	04.22.2020 05:15	
m,p-Xylenes	<0.00400	0.200	0.183	92	0.168	84	70-130	9	35	mg/kg	04.22.2020 05:15	
o-Xylene	<0.00200	0.100	0.0943	94	0.0875	88	70-130	7	35	mg/kg	04.22.2020 05:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		98		70-130	%	04.22.2020 05:15
4-Bromofluorobenzene	95		98		70-130	%	04.22.2020 05:15

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123937

Parent Sample Id: 659195-001

Matrix: Soil

MS Sample Id: 659195-001 S

Prep Method: SW5030B

Date Prep: 04.22.2020

MSD Sample Id: 659195-001 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	0.0655	66	0.0425	43	70-130	43	35	mg/kg	04.22.2020 13:10	XF
Toluene	<0.00199	0.0994	0.0732	74	0.0452	46	70-130	47	35	mg/kg	04.22.2020 13:10	XF
Ethylbenzene	<0.00199	0.0994	0.0710	71	0.0352	35	70-130	67	35	mg/kg	04.22.2020 13:10	XF
m,p-Xylenes	<0.00398	0.199	0.138	69	0.0671	34	70-130	69	35	mg/kg	04.22.2020 13:10	XF
o-Xylene	<0.00199	0.0994	0.0706	71	0.0356	36	70-130	66	35	mg/kg	04.22.2020 13:10	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		70-130	%	04.22.2020 13:10
4-Bromofluorobenzene	101		98		70-130	%	04.22.2020 13:10

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) 449-8900

Work Order No:

1050138

www.xenco.com Page 1 of 2

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

Work Order Comments	
Program: UST/PST	☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting Level: ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ Level 5	
Deliverables: EDD ☐ ADAPT ☐ Other: ☐	

Project Name:	New Mexico BN-BX	Turn Around	☒
Project Number:	11573	Rush:	☐
Project Location:	Endeavor	Due Date:	
Sampler's Name:	Eric Mojica		
PO #:			

Temp Blank:	Yes ☒ No ☐	Well:	Yes ☐ No ☒
Received Inact:	Yes ☒ No ☐	Thermometer:	PA
Cooler Custody Seals:	Yes ☐ No ☒	Correction Factor:	
Sample Custody Seals:	Yes ☐ No ☒	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
EW19	S	4-15-20		
EW18	S	4-15-20		
ES16-2	S	4-15-20		
EW16A	S	4-15-20		
ES16-1	S	4-15-20		
ES16-2	S	4-15-20		
EW17-A	S	4-15-20		
ES20	S	4-15-20		
SEW20	S	4-15-20		
EW20	S	4-15-20		

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

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	Joel Lowry	Eric Mojica	4-16-20 2:39	Eric Mojica	4/17
2					
3					
4					
5					



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) 794-1286
Hobbs, NM (575) 392-7550, Carlsbad, NM (505) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6700
Atlanta, GA (770) 449-8900

Work Order No.

1059138

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

www.xenoco.com Page 2 of 2

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level ☐ Level II ☐ PST/UST ☐ TRRL ☐ Level II ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	New Mexico	Turn Around
Project Number:	11573	Routine: ☒
Project Location:	Endeavor	Rush: ☐
Sampler's Name:	Eric Mejia	Due Date:
PO #:		

SAMPLE RECEIPT			
Temperature (°C):	Temp Blank:	Yes	No
Received Inact:	Yes	No	Thermometer ID
Cooler Custody Seals:	Yes	No	Correction Factor:
Sample Custody Seals:	Yes	No	Total Containers:

ANALYSIS REQUEST												Preservative Codes
												HNO ₃ : HN
												H ₂ SO ₄ : H2
												HCL: HL
												None: NO
												NaOH: Na
												MeOH: Me
												Zn Acetate+ NaOH: Zn

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
FS 18-1A	S	4-15-20		

lab, if received by 4:30pm		Sample Comments

[illegible]

Total	200.7 / 6010	200.8 / 6020;
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Circle Method(s) and Metal(s) to be analyzed

Signature of this document and relinquishment of samples constitutes a valid purchase order from all of the following:

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 client negligence. A minimum charge of \$75,000 will be applied to each contract and shall be non-refundable. Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of purchase order from client company to Xenco, its affiliates and subcontractors.

Belinau, Inc. has agreed to accept a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Acquired by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by (Signature)

Page 10

in the

Carlyle

41-16-70

Signature of: (Original)

Received by: (Signature,

Date/Time

0

7-10-20

Open Court



11

1

5

7

MA 4008
HOBBS, N.M. 88240
UNITED STATES
S FTC, LLC
TO XENCO LABORATORIES HOLD FOR PICK UP
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER
3600 COUNTY ROAD 1276 SOUTH
MIDLAND TX 79711

SHIP DATE: 16APR20
ACTWGT: 14.00 LB MAN
CAD: 0909328/CAFE3211
DIMS: 12x12x12 IN
BILL RECIPIENT



FedEx Express
J181118868581uv

TRK# 0201 4705 2523 4145
41 MAFA

FRI - 17 APR HOLD
PRIORITY OVERNIGHT
HLD
MAFA
TX-US LB



ORIGIN ID: HOBBS
MAIL SERVICES ETC, LLC
HOBBS, N.M. 88240
UNITED STATES
TO XENCO LABORATORIES HOLD FOR PICK UP
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER
3600 COUNTY ROAD 1276 SOUTH
MIDLAND TX 79711

SHIP DATE: 16APR20
ACTWGT: 14.00 LB MAN
CAD: 0909328/CAFE3211
DIMS: 12x12x12 IN
BILL RECIPIENT

TRK# 0201 4705 2523 4134
41 MAFA

FRI - 17 APR HOLD
PRIORITY OVERNIGHT
HLD
MAFA
TX-US LB

FedEx Express
J181118868581uv



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.17.2020 11.15.00 AM

Work Order #: 659138

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

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: 04.17.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.20.2020



Analytical Report 659218

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

New Mexico BW-BX

11573

04.24.2020

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)



04.24.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **659218**

New Mexico BW-BX

Project Address: Endeavor

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 XENCO Report Number(s) 659218. 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. 659218 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 Manager

A Small Business and Minority Company

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

**Sample Cross Reference 659218****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS3A	S	04.16.2020 00:00	2.5	659218-001
FS6A	S	04.16.2020 00:00	2.5	659218-002
FS1	S	04.16.2020 00:00	2.5	659218-003
EW4A	S	04.16.2020 00:00		659218-004
FS2A	S	04.16.2020 00:00	2.5	659218-005
EW9A	S	04.16.2020 00:00		659218-006
FS7A	S	04.16.2020 00:00	4	659218-007
NW18-3	S	04.16.2020 00:00		659218-008
NW18-2	S	04.16.2020 00:00		659218-009
NW18-1	S	04.16.2020 00:00		659218-010
FS21	S	04.16.2020 00:00		659218-011
EW21	S	04.16.2020 00:00		659218-012
NW21	S	04.16.2020 00:00		659218-013
WW21	S	04.16.2020 00:00		659218-014



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 659218

Report Date: 04.24.2020
Date Received: 04.20.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **FS3A** Matrix: Soil Sample Depth: 2.5
Lab Sample Id: 659218-001 Date Collected: 04.16.2020 00:00 Date Received: 04.20.2020 10:23
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3123736 Date Prep: 04.21.2020 16:00
Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 02:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.22.2020 02:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.22.2020 02:08	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	04.22.2020 02:08	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	93	70 - 130	%		
o-Terphenyl	97	70 - 130	%		

Sample Id: **FS6A** Matrix: Soil Sample Depth: 2.5
Lab Sample Id: 659218-002 Date Collected: 04.16.2020 00:00 Date Received: 04.20.2020 10:23
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3123736 Date Prep: 04.21.2020 16:00
Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	14.9	mg/kg	04.22.2020 02:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.8	49.8	14.9	mg/kg	04.22.2020 02:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	14.9	mg/kg	04.22.2020 02:27	U	1
Total TPH	PHC635	61.8		14.9	mg/kg	04.22.2020 02:27		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	90	70 - 130	%		
o-Terphenyl	94	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **FS1** Matrix: Soil Sample Depth: 2.5
Lab Sample Id: 659218-003 Date Collected: 04.16.2020 00:00 Date Received: 04.20.2020 10:23
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3123736 Date Prep: 04.21.2020 16:00
Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 02:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.22.2020 02:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.22.2020 02:46	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	04.22.2020 02:46	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 130	%		
o-Terphenyl	91	70 - 130	%		

Sample Id: **EW4A** Matrix: Soil Sample Depth:
Lab Sample Id: 659218-004 Date Collected: 04.16.2020 00:00 Date Received: 04.20.2020 10:23
Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3123736 Date Prep: 04.21.2020 16:00
Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.22.2020 03:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	04.22.2020 03:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.22.2020 03:05	U	1
Total TPH	PHC635	<49.9		15.0	mg/kg	04.22.2020 03:05	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	85	70 - 130	%		
o-Terphenyl	86	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **FS2A** Matrix: Soil Sample Depth: 2.5
 Lab Sample Id: 659218-005 Date Collected: 04.16.2020 00:00 Date Received: 04.20.2020 10:23
 Analytical Method: TPH By SW8015 Mod Prep Method: 8015
 Analyst: ARM % Moist: Tech: ARM
 Seq Number: 3123736 Date Prep: 04.21.2020 16:00
 Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 03:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.22.2020 03:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.22.2020 03:24	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	04.22.2020 03:24	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 130	%		
o-Terphenyl	89	70 - 130	%		

Sample Id: **EW9A** Matrix: Soil Sample Depth:
 Lab Sample Id: 659218-006 Date Collected: 04.16.2020 00:00 Date Received: 04.20.2020 10:23
 Analytical Method: TPH By SW8015 Mod Prep Method: 8015
 Analyst: ARM % Moist: Tech: ARM
 Seq Number: 3123736 Date Prep: 04.21.2020 16:00
 Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.22.2020 03:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	04.22.2020 03:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.22.2020 03:42	U	1
Total TPH	PHC635	<49.9		15.0	mg/kg	04.22.2020 03:42	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	83	70 - 130	%		
o-Terphenyl	80	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **FS7A**

Matrix: Soil

Sample Depth: 4

Lab Sample Id: 659218-007

Date Collected: 04.16.2020 00:00

Date Received: 04.20.2020 10:23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: SPC

% Moist:

Tech: SPC

Seq Number: 3123590

Date Prep: 04.20.2020 16:30

Prep seq: 7701623

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	65.4	5.05	0.867	mg/kg	04.20.2020 23:30		1



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **NW18-3**

Matrix: Soil

Sample Depth:

Lab Sample Id: 659218-008

Date Collected: 04.16.2020 00:00

Date Received: 04.20.2020 10:23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: SPC

% Moist:

Tech: SPC

Seq Number: 3123590

Date Prep: 04.20.2020 16:30

Prep seq: 7701623

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	437	25.3	4.34	mg/kg	04.20.2020 23:37		5

Analytical Method: TPH By SW8015 Mod

Prep Method: 8015

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3123736

Date Prep: 04.21.2020 16:00

Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 04:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.22.2020 04:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.22.2020 04:39	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	04.22.2020 04:39	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	89	70 - 130	%		
o-Terphenyl	92	70 - 130	%		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5035A

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3123937

Date Prep: 04.22.2020 12:30

Prep seq: 7701905

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00199	0.00199	0.000383	mg/kg	04.22.2020 22:10	U	1
Toluene	108-88-3	<0.00199	0.00199	0.000454	mg/kg	04.22.2020 22:10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	0.000563	mg/kg	04.22.2020 22:10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	0.00101	mg/kg	04.22.2020 22:10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	0.000343	mg/kg	04.22.2020 22:10	U	1
Total Xylenes	1330-20-7	<0.00199		0.000343	mg/kg	04.22.2020 22:10	U	
Total BTEX		<0.00199		0.000343	mg/kg	04.22.2020 22:10	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	104	70 - 130	%		
4-Bromofluorobenzene	115	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **NW18-2**

Matrix: Soil

Sample Depth:

Lab Sample Id: 659218-009

Date Collected: 04.16.2020 00:00

Date Received: 04.20.2020 10:23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: SPC

% Moist:

Tech: SPC

Seq Number: 3123590

Date Prep: 04.20.2020 16:30

Prep seq: 7701623

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	181	5.05	0.867	mg/kg	04.20.2020 23:43		1

Analytical Method: TPH By SW8015 Mod

Prep Method: 8015

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3123736

Date Prep: 04.21.2020 16:00

Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.22.2020 04:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	73.2	49.9	15.0	mg/kg	04.22.2020 04:58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	54.5	49.9	15.0	mg/kg	04.22.2020 04:58		1
Total TPH	PHC635	128		15.0	mg/kg	04.22.2020 04:58		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 130	%		
o-Terphenyl	90	70 - 130	%		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5035A

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3123937

Date Prep: 04.22.2020 12:30

Prep seq: 7701905

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00202	0.00202	0.000388	mg/kg	04.22.2020 22:30	U	1
Toluene	108-88-3	<0.00202	0.00202	0.000459	mg/kg	04.22.2020 22:30	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	0.000569	mg/kg	04.22.2020 22:30	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	0.00102	mg/kg	04.22.2020 22:30	U	1
o-Xylene	95-47-6	<0.00202	0.00202	0.000347	mg/kg	04.22.2020 22:30	U	1
Total Xylenes	1330-20-7	<0.00202		0.000347	mg/kg	04.22.2020 22:30	U	
Total BTEX		<0.00202		0.000347	mg/kg	04.22.2020 22:30	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	106	70 - 130	%		
4-Bromofluorobenzene	123	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **NW18-1**

Matrix: Soil

Sample Depth:

Lab Sample Id: 659218-010

Date Collected: 04.16.2020 00:00

Date Received: 04.20.2020 10:23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: SPC

% Moist:

Tech: SPC

Seq Number: 3123590

Date Prep: 04.20.2020 16:30

Prep seq: 7701623

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	14.0	4.98	0.855	mg/kg	04.20.2020 23:50		1

Analytical Method: TPH By SW8015 Mod

Prep Method: 8015

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3123736

Date Prep: 04.21.2020 16:00

Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 05:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.22.2020 05:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.22.2020 05:16	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	04.22.2020 05:16	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	88	70 - 130	%		
o-Terphenyl	90	70 - 130	%		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5035A

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3123937

Date Prep: 04.22.2020 12:30

Prep seq: 7701905

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00200	0.00200	0.000386	mg/kg	04.22.2020 22:50	U	1
Toluene	108-88-3	<0.00200	0.00200	0.000457	mg/kg	04.22.2020 22:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	0.000566	mg/kg	04.22.2020 22:50	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	0.00102	mg/kg	04.22.2020 22:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	0.000345	mg/kg	04.22.2020 22:50	U	1
Total Xylenes	1330-20-7	<0.00200		0.000345	mg/kg	04.22.2020 22:50	U	
Total BTEX		<0.00200		0.000345	mg/kg	04.22.2020 22:50	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	105	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **FS21** Matrix: Soil Sample Depth:
Lab Sample Id: 659218-011 Date Collected: 04.16.2020 00:00 Date Received: 04.20.2020 10:23
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Analyst: SPC % Moist: Tech: SPC
Seq Number: 3123590 Date Prep: 04.20.2020 16:30
Prep seq: 7701623

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	73.4	5.00	0.858	mg/kg	04.20.2020 23:57		1

Analytical Method: TPH By SW8015 Mod Prep Method: 8015
Analyst: ARM % Moist: Tech: ARM
Seq Number: 3123736 Date Prep: 04.21.2020 16:00
Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	14.9	mg/kg	04.22.2020 05:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	14.9	mg/kg	04.22.2020 05:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	14.9	mg/kg	04.22.2020 05:35	U	1
Total TPH	PHC635	<49.8		14.9	mg/kg	04.22.2020 05:35	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 130	%		
o-Terphenyl	90	70 - 130	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5035A
Analyst: KTL % Moist: Tech: KTL
Seq Number: 3123941 Date Prep: 04.22.2020 16:00
Prep seq: 7701907

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00200	0.00200	0.000386	mg/kg	04.22.2020 20:55	U	1
Toluene	108-88-3	<0.00200	0.00200	0.000457	mg/kg	04.22.2020 20:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	0.000566	mg/kg	04.22.2020 20:55	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	0.00102	mg/kg	04.22.2020 20:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	0.000345	mg/kg	04.22.2020 20:55	U	1
Total Xylenes	1330-20-7	<0.00200		0.000345	mg/kg	04.22.2020 20:55	U	
Total BTEX		<0.00200		0.000345	mg/kg	04.22.2020 20:55	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	108	70 - 130	%		
4-Bromofluorobenzene	114	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **EW21**

Matrix: Soil

Sample Depth:

Lab Sample Id: 659218-012

Date Collected: 04.16.2020 00:00

Date Received: 04.20.2020 10:23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: SPC

% Moist:

Tech: SPC

Seq Number: 3123590

Date Prep: 04.20.2020 16:30

Prep seq: 7701623

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	101	5.04	0.865	mg/kg	04.21.2020 00:04		1

Analytical Method: TPH By SW8015 Mod

Prep Method: 8015

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3123736

Date Prep: 04.21.2020 16:00

Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 05:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.22.2020 05:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.22.2020 05:54	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	04.22.2020 05:54	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	88	70 - 130	%		
o-Terphenyl	89	70 - 130	%		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5035A

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3123941

Date Prep: 04.22.2020 16:00

Prep seq: 7701907

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00199	0.00199	0.000383	mg/kg	04.22.2020 21:15	U	1
Toluene	108-88-3	<0.00199	0.00199	0.000454	mg/kg	04.22.2020 21:15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	0.000563	mg/kg	04.22.2020 21:15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	0.00101	mg/kg	04.22.2020 21:15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	0.000343	mg/kg	04.22.2020 21:15	U	1
Total Xylenes	1330-20-7	<0.00199		0.000343	mg/kg	04.22.2020 21:15	U	
Total BTEX		<0.00199		0.000343	mg/kg	04.22.2020 21:15	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	108	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **NW21**

Matrix: Soil

Sample Depth:

Lab Sample Id: 659218-013

Date Collected: 04.16.2020 00:00

Date Received: 04.20.2020 10:23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: SPC

% Moist:

Tech: SPC

Seq Number: 3123677

Date Prep: 04.21.2020 13:30

Prep seq: 7701704

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	29.8	5.04	0.865	mg/kg	04.21.2020 14:20		1

Analytical Method: TPH By SW8015 Mod

Prep Method: 8015

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3123736

Date Prep: 04.21.2020 16:00

Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 06:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.22.2020 06:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.22.2020 06:13	U	1
Total TPH	PHC635	<50.0		15.0	mg/kg	04.22.2020 06:13	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	86	70 - 130	%		
o-Terphenyl	89	70 - 130	%		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5035A

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3123941

Date Prep: 04.22.2020 16:00

Prep seq: 7701907

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00198	0.00198	0.000382	mg/kg	04.22.2020 21:36	U	1
Toluene	108-88-3	<0.00198	0.00198	0.000452	mg/kg	04.22.2020 21:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	0.000560	mg/kg	04.22.2020 21:36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	0.00101	mg/kg	04.22.2020 21:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	0.000342	mg/kg	04.22.2020 21:36	U	1
Total Xylenes	1330-20-7	<0.00198		0.000342	mg/kg	04.22.2020 21:36	U	
Total BTEX		<0.00198		0.000342	mg/kg	04.22.2020 21:36	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	110	70 - 130	%		
4-Bromofluorobenzene	109	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **WW21**

Matrix: Soil

Sample Depth:

Lab Sample Id: 659218-014

Date Collected: 04.16.2020 00:00

Date Received: 04.20.2020 10:23

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst: SPC

% Moist:

Tech: SPC

Seq Number: 3123677

Date Prep: 04.21.2020 13:30

Prep seq: 7701704

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	76.4	4.99	0.857	mg/kg	04.21.2020 14:36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: 8015

Analyst: ARM

% Moist:

Tech: ARM

Seq Number: 3123736

Date Prep: 04.21.2020 16:00

Prep seq: 7701713

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.22.2020 06:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	302	50.0	15.0	mg/kg	04.22.2020 06:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	228	50.0	15.0	mg/kg	04.22.2020 06:31		1
Total TPH	PHC635	530		15.0	mg/kg	04.22.2020 06:31		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 130	%		
o-Terphenyl	90	70 - 130	%		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5035A

Analyst: KTL

% Moist:

Tech: KTL

Seq Number: 3123941

Date Prep: 04.22.2020 16:00

Prep seq: 7701907

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00199	0.00199	0.000383	mg/kg	04.22.2020 21:56	U	1
Toluene	108-88-3	0.00215	0.00199	0.000453	mg/kg	04.22.2020 21:56		1
Ethylbenzene	100-41-4	<0.00199	0.00199	0.000561	mg/kg	04.22.2020 21:56	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	0.00101	mg/kg	04.22.2020 21:56	U	1
o-Xylene	95-47-6	<0.00199	0.00199	0.000342	mg/kg	04.22.2020 21:56	U	1
Total Xylenes	1330-20-7	<0.00199		0.000342	mg/kg	04.22.2020 21:56	U	
Total BTEX		0.00215		0.000342	mg/kg	04.22.2020 21:56		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	112	70 - 130	%		
4-Bromofluorobenzene	114	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: 7701623-1-BLK	Matrix: Solid	Sample Depth:
Lab Sample Id: 7701623-1-BLK	Date Collected:	Date Received:
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Analyst: SPC	% Moist:	Tech: SPC
Seq Number: 3123590	Date Prep: 04.20.2020 16:30	
	Prep seq: 7701623	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<5.00	5.00	0.858	mg/kg	04.20.2020 20:39	U	1

Sample Id: 7701704-1-BLK	Matrix: Solid	Sample Depth:
Lab Sample Id: 7701704-1-BLK	Date Collected:	Date Received:
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Analyst: SPC	% Moist:	Tech: SPC
Seq Number: 3123677	Date Prep: 04.21.2020 13:30	
	Prep seq: 7701704	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<5.00	5.00	0.858	mg/kg	04.21.2020 14:04	U	1

Sample Id: 7701713-1-BLK	Matrix: Solid	Sample Depth:
Lab Sample Id: 7701713-1-BLK	Date Collected:	Date Received:
Analytical Method: TPH By SW8015 Mod		Prep Method: 8015
Analyst: ARM	% Moist:	Tech: ARM
Seq Number: 3123736	Date Prep: 04.21.2020 16:00	
	Prep seq: 7701713	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.21.2020 23:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.21.2020 23:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.21.2020 23:20	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	87	70 - 130	%		
o-Terphenyl	91	70 - 130	%		



Certificate of Analytical Results

659218

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **7701905-1-BLK** Matrix: Solid Sample Depth:
Lab Sample Id: 7701905-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5030B
Analyst: KTL % Moist: Tech: KTL
Seq Number: 3123937 Date Prep: 04.22.2020 12:30
Prep seq: 7701905

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00200	0.00200	0.000385	mg/kg	04.22.2020 14:29	U	1
Toluene	108-88-3	<0.00200	0.00200	0.000456	mg/kg	04.22.2020 14:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	0.000565	mg/kg	04.22.2020 14:29	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	0.00101	mg/kg	04.22.2020 14:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	0.000344	mg/kg	04.22.2020 14:29	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	97	70 - 130	%		
4-Bromofluorobenzene	100	70 - 130	%		

Sample Id: **7701907-1-BLK** Matrix: Solid Sample Depth:
Lab Sample Id: 7701907-1-BLK Date Collected: Date Received:
Analytical Method: BTEX by EPA 8021B Prep Method: 5035A
Analyst: KTL % Moist: Tech: KTL
Seq Number: 3123941 Date Prep: 04.22.2020 16:00
Prep seq: 7701907

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00200	0.00200	0.000385	mg/kg	04.23.2020 09:33	U	1
Toluene	108-88-3	<0.00200	0.00200	0.000456	mg/kg	04.23.2020 09:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	0.000565	mg/kg	04.23.2020 09:33	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	0.00101	mg/kg	04.23.2020 09:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	0.000344	mg/kg	04.23.2020 09:33	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1,4-Difluorobenzene	105	70 - 130	%		
4-Bromofluorobenzene	105	70 - 130	%		



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



Form 2 - Surrogate Recoveries

Project Name: New Mexico BW-BX

Work Orders : 659218

Project ID: 11573

Lab Batch #: 3123937

Sample: 7701905-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.22.2020 12:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0329	0.0300	110	70-130	

Lab Batch #: 3123937

Sample: 7701905-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.22.2020 12:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0324	0.0300	108	70-130	

Lab Batch #: 3123937

Sample: 659195-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.22.2020 13:10

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	70-130	
4-Bromofluorobenzene	0.0302	0.0300	101	70-130	

Lab Batch #: 3123937

Sample: 659195-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.22.2020 13:30

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	70-130	
4-Bromofluorobenzene	0.0294	0.0300	98	70-130	

Lab Batch #: 3123937

Sample: 7701905-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.22.2020 14:29

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	70-130	
4-Bromofluorobenzene	0.0300	0.0300	100	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: New Mexico BW-BX

Work Orders : 659218

Project ID: 11573

Lab Batch #: 3123941

Sample: 7701907-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.22.2020 16:50

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3123941

Sample: 7701907-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.22.2020 17:11

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0297	0.0300	99	70-130	

Lab Batch #: 3123941

Sample: 659440-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.22.2020 17:31

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	70-130	
4-Bromofluorobenzene	0.0293	0.0300	98	70-130	

Lab Batch #: 3123941

Sample: 659440-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.22.2020 17:52

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0308	0.0300	103	70-130	
4-Bromofluorobenzene	0.0292	0.0300	97	70-130	

Lab Batch #: 3123941

Sample: 7701907-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.23.2020 09:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	70-130	
4-Bromofluorobenzene	0.0316	0.0300	105	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



Form 2 - Surrogate Recoveries

Project Name: New Mexico BW-BX

Work Orders : 659218

Project ID: 11573

Lab Batch #: 3123736

Sample: 7701713-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.21.2020 23:20

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.7	100	87	70-130	
o-Terphenyl	45.5	50.0	91	70-130	

Lab Batch #: 3123736

Sample: 7701713-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.21.2020 23:38

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	100	107	70-130	
o-Terphenyl	50.4	50.0	101	70-130	

Lab Batch #: 3123736

Sample: 7701713-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

Date Analyzed: 04.21.2020 23:57

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	100	117	70-130	
o-Terphenyl	52.9	50.0	106	70-130	

Lab Batch #: 3123736

Sample: 659139-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.22.2020 00:34

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.6	99.7	99	70-130	
o-Terphenyl	47.1	49.9	94	70-130	

Lab Batch #: 3123736

Sample: 659139-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

Date Analyzed: 04.22.2020 00:53

SURROGATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.8	99.6	100	70-130	
o-Terphenyl	46.2	49.8	93	70-130	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 * A / B$

All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries

Project Name: New Mexico BW-BX

Work Order #: 659218

Project ID: 11573

Analyst: KTL

Date Prepared: 04.22.2020

Date Analyzed: 04.22.2020

Lab Batch ID: 3123937

Sample: 7701905-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.100	0.0756	76	0.100	0.0812	81	7	70-130	35	
Toluene	<0.00200	0.100	0.0891	89	0.100	0.0876	88	2	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0959	96	0.100	0.0936	94	2	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.200	0.186	93	4	70-130	35	
o-Xylene	<0.00200	0.100	0.0992	99	0.100	0.0960	96	3	70-130	35	

Analyst: KTL

Date Prepared: 04.22.2020

Date Analyzed: 04.22.2020

Lab Batch ID: 3123941

Sample: 7701907-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.00200	0.100	0.0838	84	0.100	0.0924	92	10	70-130	35	
Toluene	<0.00200	0.100	0.0816	82	0.100	0.0881	88	8	70-130	35	
Ethylbenzene	<0.00200	0.100	0.0823	82	0.100	0.0882	88	7	70-130	35	
m,p-Xylenes	<0.00400	0.200	0.160	80	0.200	0.172	86	7	70-130	35	
o-Xylene	<0.00200	0.100	0.0834	83	0.100	0.0897	90	7	70-130	35	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100 * (C)/[B]$ Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries

Project Name: New Mexico BW-BX

Work Order #: 659218

Project ID: 11573

Analyst: SPC

Date Prepared: 04.20.2020

Date Analyzed: 04.20.2020

Lab Batch ID: 3123590

Sample: 7701623-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	244	98	250	244	98	0	90-110	20	

Analyst: SPC

Date Prepared: 04.21.2020

Date Analyzed: 04.21.2020

Lab Batch ID: 3123677

Sample: 7701704-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Chloride	<5.00	250	246	98	250	245	98	0	90-110	20	

Analyst: ARM

Date Prepared: 04.21.2020

Date Analyzed: 04.21.2020

Lab Batch ID: 3123736

Sample: 7701713-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	874	87	1000	907	91	4	70-130	20	
Diesel Range Organics (DRO)	<50.0	1000	964	96	1000	1000	100	4	70-130	20	

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

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: New Mexico BW-BX

Work Order #: 659218
 Lab Batch ID: 3123937
 Date Analyzed: 04.22.2020
 Reporting Units: mg/kg

QC- Sample ID: 659195-001 S
 Date Prepared: 04.22.2020

Project ID: 11573
 Batch #: 1 Matrix: Soil
 Analyst: KTL

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00199	0.0994	0.0655	66	0.0992	0.0425	43	43	70-130	35	XF
Toluene	<0.00199	0.0994	0.0732	74	0.0992	0.0452	46	47	70-130	35	XF
Ethylbenzene	<0.00199	0.0994	0.0710	71	0.0992	0.0352	35	67	70-130	35	XF
m,p-Xylenes	<0.00398	0.199	0.138	69	0.198	0.0671	34	69	70-130	35	XF
o-Xylene	<0.00199	0.0994	0.0706	71	0.0992	0.0356	36	66	70-130	35	XF

Lab Batch ID: 3123941
 Date Analyzed: 04.22.2020
 Reporting Units: mg/kg

QC- Sample ID: 659440-001 S
 Date Prepared: 04.22.2020

Batch #: 1 Matrix: Soil
 Analyst: KTL

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.0923	92	0.0990	0.0909	92	2	70-130	35	
Toluene	<0.00200	0.0998	0.0875	88	0.0990	0.0858	87	2	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.0879	88	0.0990	0.0866	87	1	70-130	35	
m,p-Xylenes	<0.00399	0.200	0.171	86	0.198	0.168	85	2	70-130	35	
o-Xylene	<0.00200	0.0998	0.0897	90	0.0990	0.0878	89	2	70-130	35	

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

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

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



Form 3 - MS / MSD Recoveries

Project Name: New Mexico BW-BX

Work Order #: 659218

Project ID: 11573

Lab Batch ID: 3123590

QC- Sample ID: 659248-081 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04.20.2020

Date Prepared: 04.20.2020

Analyst: SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	560	250	799	96	250	798	95	0	90-110	20	

Lab Batch ID: 3123590

QC- Sample ID: 659248-089 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04.20.2020

Date Prepared: 04.20.2020

Analyst: SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	656	248	919	106	248	919	106	0	90-110	20	

Lab Batch ID: 3123677

QC- Sample ID: 659218-013 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04.21.2020

Date Prepared: 04.21.2020

Analyst: SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	29.8	302	343	104	302	341	103	1	90-110	20	

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

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

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



Form 3 - MS / MSD Recoveries

Project Name: New Mexico BW-BX

Work Order #: 659218

Project ID: 11573

Lab Batch ID: 3123677

QC- Sample ID: 659281-009 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04.21.2020

Date Prepared: 04.21.2020

Analyst: SPC

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	260	250	501	96	250	497	95	1	90-110	20	

Lab Batch ID: 3123736

QC- Sample ID: 659139-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 04.22.2020

Date Prepared: 04.21.2020

Analyst: ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	852	85	996	850	85	0	70-130	20	
Diesel Range Organics (DRO)	<49.9	997	946	95	996	941	94	1	70-130	20	

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

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

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



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:

1059216

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Page 1 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	
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:	New Mexico BW-BX	Turn Around	
Project Number:	11573	Routine:	☒
Project Location:	Endeavor	Rush:	☐
Sampler's Name:	Eric Mojica	Due Date:	
PO #:			

ANALYSIS REQUEST

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ Level I ☐ Level II ☐ Level III ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other: ☐	

SAMPLE RECEIPT	Temp. Blank:	Yes ☒ No ☐	Well Ice:	Yes ☒ No ☐
	Received Inact:	Yes ☒ No ☐	Thermometer:	Yes ☒ No ☐
	Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	-0.3
	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
FS3A T ^{PH} 200A	S	4-16-20		2 1/2'							
FS6A	S	4-16-20		2 1/2'							
FS1A	S	4-16-20		2 1/2'							
EW4A	S	4-16-20		2 1/2'							
FS2A	S	4-16-20		2 1/2'							
FS7A	S	4-16-20		4							
NW18-3	S	4-16-20									
NW18-2	S	4-16-20									
NW18-1	S	4-16-20									

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
Eric Mojica	Joel Lowry	4/17/20 1043	Eric Mojica	Joel Lowry	4/17/20 1043



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 502-0300, 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) 449-8900

Work Order No:

1059216

www.xenco.com Page 2 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elect Environmental & Safety	Company Name:	
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lowington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@electenvy.com + Client
Project Name:	New Mexico BW-BX	Turn Around	
Project Number:	11573	Routine:	☒
Project Location:	Endevor	Rush:	☐
Sampler's Name:	Eric Majin	Due Date:	
PO #:			

ANALYSIS REQUEST

Program: UST/PST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ Level I ☐ Level II ☐ Level III ☐	Delivery: ☐ EDD ☐ ADAPT ☐ Other: ☐

SAMPLE RECEIPT	
Temp Blank:	Yes ☒ No ☐
Wet Ice:	Yes ☐ No ☒
Thermometer:	Yes ☒ No ☐
Received Inact:	Yes ☐ No ☒
Cooler Custody Seals:	Yes ☐ No ☒
Sample Custody Seals:	Yes ☐ No ☒
Correction Factor:	Yes ☐ No ☒
Total Containers:	

Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005
FS 21				
EW 21				
NW 21				
WW 21				

Sample Comments

TAT starts the day received by the lab, if received by 4:30pm

Preservative Codes

HNO3: HN
 H2SO4: H2
 HCL: HL
 None: NO
 NaOH: Na
 MeOH: Me
 Zn Acetate+ NaOH: Zn

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 A 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

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)

Received by: (Signature)

Date/Time

1	EW 21	3/20/20 10:43	10/23	4/12
2	NW 21			
3	WW 21			
4				
5				

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.20.2020 10.23.00 AM

Work Order #: 659218

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

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: 04.20.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.20.2020



Certificate of Analysis Summary 659717

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Endeavor

Date Received in Lab: Fri 04.24.2020 11:25
Report Date: 05.01.2020 12:44
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659717-001	659717-002	659717-003	659717-004	659717-005	659717-006
	<i>Field Id:</i>	EW 15A	SWA	FS12C	FS17-2A	FS13C	FS17-1C
	<i>Depth:</i>			4- ft	4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.20.2020 00:00	04.20.2020 00:00	04.22.2020 00:00	04.22.2020 00:00	04.22.2020 00:00	04.22.2020 00:00
BTEX by EPA 8021B SUB: T104704219-19-21	<i>Extracted:</i>			04.30.2020 10:00	04.30.2020 10:00	04.30.2020 10:00	04.30.2020 10:00
	<i>Analyzed:</i>			04.30.2020 23:20	05.01.2020 00:57	05.01.2020 01:21	05.01.2020 01:45
	<i>Units/RL:</i>			mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene				<0.00835 0.0185	<0.00831 0.0184	<0.00879 0.0195	<0.00879 0.0195
Toluene				<0.00433 0.0185	<0.00430 0.0184	<0.00455 0.0195	<0.00455 0.0195
Ethylbenzene				<0.00569 0.0185	<0.00566 0.0184	<0.00599 0.0195	<0.00599 0.0195
m,p-Xylenes				<0.00630 0.0370	<0.00627 0.0368	<0.00663 0.0389	<0.00663 0.0389
o-Xylene				<0.00630 0.0185	<0.00627 0.0184	<0.00663 0.0195	<0.00663 0.0195
Total Xylenes				<0.00630 0.0185	<0.00627 0.0184	<0.00663 0.0195	<0.00663 0.0195
Total BTEX				<0.00433 0.0185	<0.00430 0.0184	<0.00455 0.0195	<0.00455 0.0195
Chloride by EPA 300	<i>Extracted:</i>	04.24.2020 14:00		04.24.2020 14:00	04.24.2020 14:00	04.24.2020 14:00	04.24.2020 14:00
	<i>Analyzed:</i>	04.25.2020 11:38		04.25.2020 12:19	04.25.2020 12:55	04.25.2020 13:30	04.25.2020 13:02
	<i>Units/RL:</i>	mg/kg RL		mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		85.2 5.04		573 5.00	1160 5.00	893 4.99	5410 49.5
TPH By SW8015 Mod	<i>Extracted:</i>		04.25.2020 11:00	04.25.2020 11:00	04.25.2020 11:00	04.25.2020 11:00	04.25.2020 11:00
	<i>Analyzed:</i>		04.25.2020 13:36	04.25.2020 12:32	04.25.2020 13:57	04.25.2020 14:18	04.25.2020 14:39
	<i>Units/RL:</i>		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	<49.9 49.9	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)			<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)			<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<49.9 49.9
Total TPH			<50.0 50.0	<49.9 49.9	<49.9 49.9	<49.8 49.8	<49.9 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 659717

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Endeavor

Date Received in Lab: Fri 04.24.2020 11:25
Report Date: 05.01.2020 12:44
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659717-007	659717-008	659717-009	659717-010	659717-011	659717-012
	<i>Field Id:</i>	FS18-3C	FS-4A	FS1-6A	FS18-2B	FS18-5A	FS 15A
	<i>Depth:</i>	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.22.2020 00:00	04.22.2020 00:00	04.22.2020 00:00	04.22.2020 00:00	04.22.2020 00:00	04.22.2020 00:00
BTEX by EPA 8021B SUB: T104704219-19-21	<i>Extracted:</i>	04.30.2020 10:00	04.30.2020 10:00	04.30.2020 10:00	04.30.2020 10:00	04.30.2020 10:00	04.30.2020 10:00
	<i>Analyzed:</i>	05.01.2020 02:10	05.01.2020 06:12	05.01.2020 06:36	05.01.2020 07:00	05.01.2020 07:24	05.01.2020 07:49
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00817 0.0181	<0.00879 0.0195	<0.00831 0.0184	<0.00885 0.0196	<0.00845 0.0187	<0.00785 0.0174
Toluene		<0.00423 0.0181	<0.00455 0.0195	<0.00430 0.0184	<0.00458 0.0196	<0.00437 0.0187	<0.00406 0.0174
Ethylbenzene		<0.00557 0.0181	<0.00599 0.0195	<0.00566 0.0184	<0.00603 0.0196	<0.00576 0.0187	<0.00535 0.0174
m,p-Xylenes		<0.00617 0.0362	<0.00663 0.0389	0.0129 J 0.0368	<0.00667 0.0391	<0.00637 0.0374	<0.00592 0.0347
o-Xylene		<0.00617 0.0181	<0.00663 0.0195	<0.00627 0.0184	<0.00667 0.0196	<0.00637 0.0187	<0.00592 0.0174
Total Xylenes		<0.00617 0.0181	<0.00663 0.0195	0.0129 J 0.0184	<0.00667 0.0196	<0.00637 0.0187	<0.00592 0.0174
Total BTEX		<0.00423 0.0181	<0.00455 0.0195	0.0129 J 0.0184	<0.00458 0.0196	<0.00437 0.0187	<0.00406 0.0174
Chloride by EPA 300	<i>Extracted:</i>	04.24.2020 14:00	04.24.2020 14:00	04.24.2020 14:00	04.24.2020 14:00	04.24.2020 14:00	04.24.2020 14:00
	<i>Analyzed:</i>	04.25.2020 13:09	04.25.2020 13:16	04.25.2020 13:23	04.25.2020 13:50	04.25.2020 13:57	04.25.2020 14:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1900 24.8	2000 24.9	2120 24.8	2870 25.2	3150 24.9	6470 50.0
TPH By SW8015 Mod	<i>Extracted:</i>	04.25.2020 11:00	04.25.2020 11:00	04.25.2020 11:00	04.25.2020 11:00	04.25.2020 11:00	04.25.2020 11:00
	<i>Analyzed:</i>	04.25.2020 15:00	04.25.2020 15:21	04.25.2020 15:43	04.25.2020 16:04	04.25.2020 16:25	04.25.2020 17:08
	<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	<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	368 50.0	1380 49.9	280 49.9	1120 50.0	210 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	110 50.0	331 49.9	94.5 49.9	277 50.0	70.8 49.9
Total TPH		<50.0 50.0	478 50.0	1710 49.9	375 49.9	1400 50.0	281 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 659717

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Endeavor

Date Received in Lab: Fri 04.24.2020 11:25
Report Date: 05.01.2020 12:44
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	659717-013	659717-014				
	Field Id:	FS14C	FS 16A				
	Depth:	4- ft	4- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	04.22.2020 00:00	04.22.2020 00:00				
BTEX by EPA 8021B SUB: T104704219-19-21	Extracted:	04.30.2020 10:00	04.30.2020 10:00				
	Analyzed:	05.01.2020 02:34	05.01.2020 02:58				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00843 0.0187	<0.00848 0.0188				
Toluene		<0.00437 0.0187	<0.00439 0.0188				
Ethylbenzene		<0.00575 0.0187	<0.00578 0.0188				
m,p-Xylenes		<0.00636 0.0373	<0.00640 0.0375				
o-Xylene		<0.00636 0.0187	<0.00640 0.0188				
Total Xylenes		<0.00636 0.0187	<0.00640 0.0188				
Total BTEX		<0.00437 0.0187	<0.00439 0.0188				
Chloride by EPA 300	Extracted:	04.24.2020 14:00	04.24.2020 14:00				
	Analyzed:	04.25.2020 14:24	04.25.2020 14:31				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		986 5.05	3800 25.2				
TPH By SW8015 Mod	Extracted:	04.25.2020 11:00	04.25.2020 11:00				
	Analyzed:	04.25.2020 17:29	04.25.2020 17:50				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.8 49.8				
Diesel Range Organics (DRO)		82.8 49.9	70.3 49.8				
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.8 49.8				
Total TPH		82.8 49.9	70.3 49.8				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 659717

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

New Mexico BW-BX

11573

05.01.2020

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)



05.01.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **659717**

New Mexico BW-BX

Project Address: Endeavor

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 XENCO Report Number(s) 659717. 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. 659717 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 Manager

A Small Business and Minority Company

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

**Sample Cross Reference 659717****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EW 15A	S	04.20.2020 00:00		659717-001
SWA	S	04.20.2020 00:00		659717-002
FS12C	S	04.22.2020 00:00	4 ft	659717-003
FS17-2A	S	04.22.2020 00:00	4 ft	659717-004
FS13C	S	04.22.2020 00:00	4 ft	659717-005
FS17-1C	S	04.22.2020 00:00	4 ft	659717-006
FS18-3C	S	04.22.2020 00:00	4 ft	659717-007
FS-4A	S	04.22.2020 00:00	4 ft	659717-008
FS1-6A	S	04.22.2020 00:00	4 ft	659717-009
FS18-2B	S	04.22.2020 00:00	4 ft	659717-010
FS18-5A	S	04.22.2020 00:00	4 ft	659717-011
FS 15A	S	04.22.2020 00:00	4 ft	659717-012
FS14C	S	04.22.2020 00:00	4 ft	659717-013
FS 16A	S	04.22.2020 00:00	4 ft	659717-014

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: New Mexico BW-BX**

Project ID: 11573
Work Order Number(s): 659717

Report Date: 05.01.2020
Date Received: 04.24.2020

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

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

**Certificate of Analytical Results 659717**

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **EW 15A**
Lab Sample Id: 659717-001

Matrix: Soil
Date Collected: 04.20.2020 00:00

Date Received: 04.24.2020 11:25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.24.2020 14:00

Basis: Wet Weight

Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	85.2	5.04	0.865	mg/kg	04.25.2020 11:38		1



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **SWA**
Lab Sample Id: 659717-002

Matrix: Soil
Date Collected: 04.20.2020 00:00

Date Received: 04.24.2020 11:25

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.25.2020 11:00

Basis: Wet Weight

Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.25.2020 13:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.25.2020 13:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.25.2020 13:36	U	1
Total TPH	PHC635	<50.0	50.0	15.0	mg/kg	04.25.2020 13:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	04.25.2020 13:36	
o-Terphenyl	84-15-1	95	%	70-130	04.25.2020 13:36	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS12C** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-003 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	573	5.00	0.858	mg/kg	04.25.2020 12:19		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.25.2020 12:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	04.25.2020 12:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 12:32	U	1
Total TPH	PHC635	<49.9	49.9	15.0	mg/kg	04.25.2020 12:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	04.25.2020 12:32	
o-Terphenyl	84-15-1	94	%	70-130	04.25.2020 12:32	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS12C**
Lab Sample Id: 659717-003

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00835	0.0185	0.00835	mg/kg	04.30.2020 23:20	U	1
Toluene	108-88-3	<0.00433	0.0185	0.00433	mg/kg	04.30.2020 23:20	U	1
Ethylbenzene	100-41-4	<0.00569	0.0185	0.00569	mg/kg	04.30.2020 23:20	U	1
m,p-Xylenes	179601-23-1	<0.00630	0.0370	0.00630	mg/kg	04.30.2020 23:20	U	1
o-Xylene	95-47-6	<0.00630	0.0185	0.00630	mg/kg	04.30.2020 23:20	U	1
Total Xylenes	1330-20-7	<0.00630	0.0185	0.00630	mg/kg	04.30.2020 23:20	U	1
Total BTEX		<0.00433	0.0185	0.00433	mg/kg	04.30.2020 23:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	68-120	04.30.2020 23:20	
a,a,a-Trifluorotoluene	98-08-8	98	%	71-121	04.30.2020 23:20	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS17-2A** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-004 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1160	5.00	0.858	mg/kg	04.25.2020 12:55		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.25.2020 13:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	04.25.2020 13:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 13:57	U	1
Total TPH	PHC635	<49.9	49.9	15.0	mg/kg	04.25.2020 13:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	04.25.2020 13:57	
o-Terphenyl	84-15-1	89	%	70-130	04.25.2020 13:57	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS17-2A**
Lab Sample Id: 659717-004

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00831	0.0184	0.00831	mg/kg	05.01.2020 00:57	U	1
Toluene	108-88-3	<0.00430	0.0184	0.00430	mg/kg	05.01.2020 00:57	U	1
Ethylbenzene	100-41-4	<0.00566	0.0184	0.00566	mg/kg	05.01.2020 00:57	U	1
m,p-Xylenes	179601-23-1	<0.00627	0.0368	0.00627	mg/kg	05.01.2020 00:57	U	1
o-Xylene	95-47-6	<0.00627	0.0184	0.00627	mg/kg	05.01.2020 00:57	U	1
Total Xylenes	1330-20-7	<0.00627	0.0184	0.00627	mg/kg	05.01.2020 00:57	U	1
Total BTEX		<0.00430	0.0184	0.00430	mg/kg	05.01.2020 00:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	68-120	05.01.2020 00:57	
a,a,a-Trifluorotoluene	98-08-8	97	%	71-121	05.01.2020 00:57	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS13C** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-005 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	893	4.99	0.857	mg/kg	04.25.2020 13:30		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	14.9	mg/kg	04.25.2020 14:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	14.9	mg/kg	04.25.2020 14:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	14.9	mg/kg	04.25.2020 14:18	U	1
Total TPH	PHC635	<49.8	49.8	14.9	mg/kg	04.25.2020 14:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	04.25.2020 14:18	
o-Terphenyl	84-15-1	94	%	70-130	04.25.2020 14:18	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS13C**
Lab Sample Id: 659717-005

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00879	0.0195	0.00879	mg/kg	05.01.2020 01:21	U	1
Toluene	108-88-3	<0.00455	0.0195	0.00455	mg/kg	05.01.2020 01:21	U	1
Ethylbenzene	100-41-4	<0.00599	0.0195	0.00599	mg/kg	05.01.2020 01:21	U	1
m,p-Xylenes	179601-23-1	<0.00663	0.0389	0.00663	mg/kg	05.01.2020 01:21	U	1
o-Xylene	95-47-6	<0.00663	0.0195	0.00663	mg/kg	05.01.2020 01:21	U	1
Total Xylenes	1330-20-7	<0.00663	0.0195	0.00663	mg/kg	05.01.2020 01:21	U	1
Total BTEX		<0.00455	0.0195	0.00455	mg/kg	05.01.2020 01:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	68-120	05.01.2020 01:21	
a,a,a-Trifluorotoluene	98-08-8	90	%	71-121	05.01.2020 01:21	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS17-1C** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-006 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5410	49.5	8.50	mg/kg	04.25.2020 13:02		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.25.2020 14:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	04.25.2020 14:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 14:39	U	1
Total TPH	PHC635	<49.9	49.9	15.0	mg/kg	04.25.2020 14:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	04.25.2020 14:39	
o-Terphenyl	84-15-1	90	%	70-130	04.25.2020 14:39	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS17-1C**
Lab Sample Id: 659717-006

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00879	0.0195	0.00879	mg/kg	05.01.2020 01:45	U	1
Toluene	108-88-3	<0.00455	0.0195	0.00455	mg/kg	05.01.2020 01:45	U	1
Ethylbenzene	100-41-4	<0.00599	0.0195	0.00599	mg/kg	05.01.2020 01:45	U	1
m,p-Xylenes	179601-23-1	<0.00663	0.0389	0.00663	mg/kg	05.01.2020 01:45	U	1
o-Xylene	95-47-6	<0.00663	0.0195	0.00663	mg/kg	05.01.2020 01:45	U	1
Total Xylenes	1330-20-7	<0.00663	0.0195	0.00663	mg/kg	05.01.2020 01:45	U	1
Total BTEX		<0.00455	0.0195	0.00455	mg/kg	05.01.2020 01:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	68-120	05.01.2020 01:45	
a,a,a-Trifluorotoluene	98-08-8	99	%	71-121	05.01.2020 01:45	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-3C** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-007 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1900	24.8	4.25	mg/kg	04.25.2020 13:09		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.25.2020 15:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.25.2020 15:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.25.2020 15:00	U	1
Total TPH	PHC635	<50.0	50.0	15.0	mg/kg	04.25.2020 15:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	04.25.2020 15:00	
o-Terphenyl	84-15-1	94	%	70-130	04.25.2020 15:00	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-3C**
Lab Sample Id: 659717-007

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00817	0.0181	0.00817	mg/kg	05.01.2020 02:10	U	1
Toluene	108-88-3	<0.00423	0.0181	0.00423	mg/kg	05.01.2020 02:10	U	1
Ethylbenzene	100-41-4	<0.00557	0.0181	0.00557	mg/kg	05.01.2020 02:10	U	1
m,p-Xylenes	179601-23-1	<0.00617	0.0362	0.00617	mg/kg	05.01.2020 02:10	U	1
o-Xylene	95-47-6	<0.00617	0.0181	0.00617	mg/kg	05.01.2020 02:10	U	1
Total Xylenes	1330-20-7	<0.00617	0.0181	0.00617	mg/kg	05.01.2020 02:10	U	1
Total BTEX		<0.00423	0.0181	0.00423	mg/kg	05.01.2020 02:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	68-120	05.01.2020 02:10	
a,a,a-Trifluorotoluene	98-08-8	99	%	71-121	05.01.2020 02:10	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS-4A** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-008 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2000	24.9	4.27	mg/kg	04.25.2020 13:16		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.25.2020 15:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	368	50.0	15.0	mg/kg	04.25.2020 15:21		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	110	50.0	15.0	mg/kg	04.25.2020 15:21		1
Total TPH	PHC635	478	50.0	15.0	mg/kg	04.25.2020 15:21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	04.25.2020 15:21	
o-Terphenyl	84-15-1	92	%	70-130	04.25.2020 15:21	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS-4A**
Lab Sample Id: 659717-008

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00879	0.0195	0.00879	mg/kg	05.01.2020 06:12	U	1
Toluene	108-88-3	<0.00455	0.0195	0.00455	mg/kg	05.01.2020 06:12	U	1
Ethylbenzene	100-41-4	<0.00599	0.0195	0.00599	mg/kg	05.01.2020 06:12	U	1
m,p-Xylenes	179601-23-1	<0.00663	0.0389	0.00663	mg/kg	05.01.2020 06:12	U	1
o-Xylene	95-47-6	<0.00663	0.0195	0.00663	mg/kg	05.01.2020 06:12	U	1
Total Xylenes	1330-20-7	<0.00663	0.0195	0.00663	mg/kg	05.01.2020 06:12	U	1
Total BTEX		<0.00455	0.0195	0.00455	mg/kg	05.01.2020 06:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	68-120	05.01.2020 06:12	
a,a,a-Trifluorotoluene	98-08-8	96	%	71-121	05.01.2020 06:12	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS1-6A** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-009 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2120	24.8	4.26	mg/kg	04.25.2020 13:23		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.25.2020 15:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	1380	49.9	15.0	mg/kg	04.25.2020 15:43		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	331	49.9	15.0	mg/kg	04.25.2020 15:43		1
Total TPH	PHC635	1710	49.9	15.0	mg/kg	04.25.2020 15:43		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	04.25.2020 15:43	
o-Terphenyl	84-15-1	105	%	70-130	04.25.2020 15:43	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS1-6A**
Lab Sample Id: 659717-009

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00831	0.0184	0.00831	mg/kg	05.01.2020 06:36	U	1
Toluene	108-88-3	<0.00430	0.0184	0.00430	mg/kg	05.01.2020 06:36	U	1
Ethylbenzene	100-41-4	<0.00566	0.0184	0.00566	mg/kg	05.01.2020 06:36	U	1
m,p-Xylenes	179601-23-1	0.0129	0.0368	0.00627	mg/kg	05.01.2020 06:36	J	1
o-Xylene	95-47-6	<0.00627	0.0184	0.00627	mg/kg	05.01.2020 06:36	U	1
Total Xylenes	1330-20-7	0.0129	0.0184	0.00627	mg/kg	05.01.2020 06:36	J	1
Total BTEX		0.0129	0.0184	0.00430	mg/kg	05.01.2020 06:36	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	81	%	68-120	05.01.2020 06:36	
a,a,a-Trifluorotoluene	98-08-8	87	%	71-121	05.01.2020 06:36	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-2B** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-010 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2870	25.2	4.33	mg/kg	04.25.2020 13:50		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.25.2020 16:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	280	49.9	15.0	mg/kg	04.25.2020 16:04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	94.5	49.9	15.0	mg/kg	04.25.2020 16:04		1
Total TPH	PHC635	375	49.9	15.0	mg/kg	04.25.2020 16:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.25.2020 16:04	
o-Terphenyl	84-15-1	94	%	70-130	04.25.2020 16:04	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-2B**
Lab Sample Id: 659717-010

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00885	0.0196	0.00885	mg/kg	05.01.2020 07:00	U	1
Toluene	108-88-3	<0.00458	0.0196	0.00458	mg/kg	05.01.2020 07:00	U	1
Ethylbenzene	100-41-4	<0.00603	0.0196	0.00603	mg/kg	05.01.2020 07:00	U	1
m,p-Xylenes	179601-23-1	<0.00667	0.0391	0.00667	mg/kg	05.01.2020 07:00	U	1
o-Xylene	95-47-6	<0.00667	0.0196	0.00667	mg/kg	05.01.2020 07:00	U	1
Total Xylenes	1330-20-7	<0.00667	0.0196	0.00667	mg/kg	05.01.2020 07:00	U	1
Total BTEX		<0.00458	0.0196	0.00458	mg/kg	05.01.2020 07:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
4-Bromofluorobenzene	460-00-4	87	%	68-120	05.01.2020 07:00			
a,a,a-Trifluorotoluene	98-08-8	89	%	71-121	05.01.2020 07:00			



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-5A** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-011 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3150	24.9	4.27	mg/kg	04.25.2020 13:57		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	15.0	mg/kg	04.25.2020 16:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	1120	50.0	15.0	mg/kg	04.25.2020 16:25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	277	50.0	15.0	mg/kg	04.25.2020 16:25		1
Total TPH	PHC635	1400	50.0	15.0	mg/kg	04.25.2020 16:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	04.25.2020 16:25	
o-Terphenyl	84-15-1	97	%	70-130	04.25.2020 16:25	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-5A**
Lab Sample Id: 659717-011

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00845	0.0187	0.00845	mg/kg	05.01.2020 07:24	U	1
Toluene	108-88-3	<0.00437	0.0187	0.00437	mg/kg	05.01.2020 07:24	U	1
Ethylbenzene	100-41-4	<0.00576	0.0187	0.00576	mg/kg	05.01.2020 07:24	U	1
m,p-Xylenes	179601-23-1	<0.00637	0.0374	0.00637	mg/kg	05.01.2020 07:24	U	1
o-Xylene	95-47-6	<0.00637	0.0187	0.00637	mg/kg	05.01.2020 07:24	U	1
Total Xylenes	1330-20-7	<0.00637	0.0187	0.00637	mg/kg	05.01.2020 07:24	U	1
Total BTEX		<0.00437	0.0187	0.00437	mg/kg	05.01.2020 07:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	77	%	68-120	05.01.2020 07:24	
a,a,a-Trifluorotoluene	98-08-8	86	%	71-121	05.01.2020 07:24	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS 15A** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-012 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6470	50.0	8.58	mg/kg	04.25.2020 14:18		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.25.2020 17:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	210	49.9	15.0	mg/kg	04.25.2020 17:08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	70.8	49.9	15.0	mg/kg	04.25.2020 17:08		1
Total TPH	PHC635	281	49.9	15.0	mg/kg	04.25.2020 17:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	04.25.2020 17:08	
o-Terphenyl	84-15-1	87	%	70-130	04.25.2020 17:08	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS 15A**
Lab Sample Id: 659717-012

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00785	0.0174	0.00785	mg/kg	05.01.2020 07:49	U	1
Toluene	108-88-3	<0.00406	0.0174	0.00406	mg/kg	05.01.2020 07:49	U	1
Ethylbenzene	100-41-4	<0.00535	0.0174	0.00535	mg/kg	05.01.2020 07:49	U	1
m,p-Xylenes	179601-23-1	<0.00592	0.0347	0.00592	mg/kg	05.01.2020 07:49	U	1
o-Xylene	95-47-6	<0.00592	0.0174	0.00592	mg/kg	05.01.2020 07:49	U	1
Total Xylenes	1330-20-7	<0.00592	0.0174	0.00592	mg/kg	05.01.2020 07:49	U	1
Total BTEX		<0.00406	0.0174	0.00406	mg/kg	05.01.2020 07:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
4-Bromofluorobenzene	460-00-4	76	%	68-120	05.01.2020 07:49			
a,a,a-Trifluorotoluene	98-08-8	84	%	71-121	05.01.2020 07:49			



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS14C** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-013 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	986	5.05	0.867	mg/kg	04.25.2020 14:24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	15.0	mg/kg	04.25.2020 17:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	82.8	49.9	15.0	mg/kg	04.25.2020 17:29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 17:29	U	1
Total TPH	PHC635	82.8	49.9	15.0	mg/kg	04.25.2020 17:29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-130	04.25.2020 17:29	
o-Terphenyl	84-15-1	80	%	70-130	04.25.2020 17:29	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS14C**
Lab Sample Id: 659717-013

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00843	0.0187	0.00843	mg/kg	05.01.2020 02:34	U	1
Toluene	108-88-3	<0.00437	0.0187	0.00437	mg/kg	05.01.2020 02:34	U	1
Ethylbenzene	100-41-4	<0.00575	0.0187	0.00575	mg/kg	05.01.2020 02:34	U	1
m,p-Xylenes	179601-23-1	<0.00636	0.0373	0.00636	mg/kg	05.01.2020 02:34	U	1
o-Xylene	95-47-6	<0.00636	0.0187	0.00636	mg/kg	05.01.2020 02:34	U	1
Total Xylenes	1330-20-7	<0.00636	0.0187	0.00636	mg/kg	05.01.2020 02:34	U	1
Total BTEX		<0.00437	0.0187	0.00437	mg/kg	05.01.2020 02:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	68-120	05.01.2020 02:34	
a,a,a-Trifluorotoluene	98-08-8	99	%	71-121	05.01.2020 02:34	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS 16A** Matrix: Soil Date Received: 04.24.2020 11:25
 Lab Sample Id: 659717-014 Date Collected: 04.22.2020 00:00 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.24.2020 14:00 Basis: Wet Weight
 Seq Number: 3124204

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3800	25.2	4.32	mg/kg	04.25.2020 14:31		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.25.2020 11:00 Basis: Wet Weight
 Seq Number: 3124197

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	14.9	mg/kg	04.25.2020 17:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	70.3	49.8	14.9	mg/kg	04.25.2020 17:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	14.9	mg/kg	04.25.2020 17:50	U	1
Total TPH	PHC635	70.3	49.8	14.9	mg/kg	04.25.2020 17:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.25.2020 17:50	
o-Terphenyl	84-15-1	93	%	70-130	04.25.2020 17:50	



Certificate of Analytical Results 659717

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS 16A**
Lab Sample Id: 659717-014

Matrix: Soil
Date Collected: 04.22.2020 00:00

Date Received: 04.24.2020 11:25
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: MIT

Analyst: MIT

Seq Number: 3124758

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00848	0.0188	0.00848	mg/kg	05.01.2020 02:58	U	1
Toluene	108-88-3	<0.00439	0.0188	0.00439	mg/kg	05.01.2020 02:58	U	1
Ethylbenzene	100-41-4	<0.00578	0.0188	0.00578	mg/kg	05.01.2020 02:58	U	1
m,p-Xylenes	179601-23-1	<0.00640	0.0375	0.00640	mg/kg	05.01.2020 02:58	U	1
o-Xylene	95-47-6	<0.00640	0.0188	0.00640	mg/kg	05.01.2020 02:58	U	1
Total Xylenes	1330-20-7	<0.00640	0.0188	0.00640	mg/kg	05.01.2020 02:58	U	1
Total BTEX		<0.00439	0.0188	0.00439	mg/kg	05.01.2020 02:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	68-120	05.01.2020 02:58	
a,a,a-Trifluorotoluene	98-08-8	97	%	71-121	05.01.2020 02:58	



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
New Mexico BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3124204

MB Sample Id: 7702011-1-BLK

Matrix: Solid

LCS Sample Id: 7702011-1-BKS

Prep Method: E300P

Date Prep: 04.24.2020

LCSD Sample Id: 7702011-1-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	250	100	252	101	90-110	1	20	mg/kg	04.25.2020 11:24	

Analytical Method: Chloride by EPA 300

Seq Number: 3124204

Parent Sample Id: 659717-001

Matrix: Soil

MS Sample Id: 659717-001 S

Prep Method: E300P

Date Prep: 04.24.2020

MSD Sample Id: 659717-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	85.2	252	352	106	350	105	90-110	1	20	mg/kg	04.25.2020 11:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3124204

Parent Sample Id: 659717-005

Matrix: Soil

MS Sample Id: 659717-005 S

Prep Method: E300P

Date Prep: 04.24.2020

MSD Sample Id: 659717-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	893	250	1120	91	1120	91	90-110	0	20	mg/kg	04.25.2020 13:36	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124197

MB Sample Id: 7702067-1-BLK

Matrix: Solid

LCS Sample Id: 7702067-1-BKS

Prep Method: SW8015P

Date Prep: 04.25.2020

LCSD Sample Id: 7702067-1-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	910	91	962	96	70-130	6	20	mg/kg	04.25.2020 11:49	
Diesel Range Organics (DRO)	<50.0	1000	970	97	1000	100	70-130	3	20	mg/kg	04.25.2020 11:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		104		109		70-130	%	04.25.2020 11:49
o-Terphenyl	92		109		111		70-130	%	04.25.2020 11:49

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124197

Matrix: Solid

MB Sample Id: 7702067-1-BLK

Prep Method: SW8015P

Date Prep: 04.25.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.25.2020 11:28	

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
New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124197

Parent Sample Id: 659717-003

Matrix: Soil

MS Sample Id: 659717-003 S

Prep Method: SW8015P

Date Prep: 04.25.2020

MSD Sample Id: 659717-003 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	953	96	977	98	70-130	2	20	mg/kg	04.25.2020 12:53	
Diesel Range Organics (DRO)	<49.9	997	934	94	1010	101	70-130	8	20	mg/kg	04.25.2020 12:53	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		97		70-130	%	04.25.2020 12:53
o-Terphenyl	95		101		70-130	%	04.25.2020 12:53

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124758

MB Sample Id: 7702424-1-BLK

Matrix: Solid

LCS Sample Id: 7702424-1-BKS

Prep Method: SW5035A

Date Prep: 04.30.2020

LCSD Sample Id: 7702424-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00904	2.00	1.90	95	1.94	97	55-120	2	20	mg/kg	04.30.2020 21:19	
Toluene	<0.00468	2.00	1.89	95	1.91	96	77-120	1	20	mg/kg	04.30.2020 21:19	
Ethylbenzene	<0.00616	2.00	1.82	91	1.81	91	77-120	1	20	mg/kg	04.30.2020 21:19	
m,p-Xylenes	<0.00682	4.00	3.64	91	3.68	92	78-120	1	20	mg/kg	04.30.2020 21:19	
o-Xylene	<0.00682	2.00	1.84	92	1.88	94	78-120	2	20	mg/kg	04.30.2020 21:19	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	94		81		82		68-120	%	04.30.2020 21:19
a,a,a-Trifluorotoluene	98		85		88		71-121	%	04.30.2020 21:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124758

Parent Sample Id: 659717-003

Matrix: Soil

MS Sample Id: 659717-003 S

Prep Method: SW5035A

Date Prep: 04.30.2020

MSD Sample Id: 659717-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00886	1.96	1.74	89	1.57	88	54-120	10	25	mg/kg	04.30.2020 23:44	
Toluene	<0.00459	1.96	1.72	88	1.56	88	57-120	10	25	mg/kg	04.30.2020 23:44	
Ethylbenzene	<0.00604	1.96	1.62	83	1.49	84	58-131	8	25	mg/kg	04.30.2020 23:44	
m,p-Xylenes	<0.00669	3.92	3.30	84	3.04	86	62-124	8	25	mg/kg	04.30.2020 23:44	
o-Xylene	<0.00669	1.96	1.65	84	1.52	85	62-124	8	25	mg/kg	04.30.2020 23:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	89		91		68-120	%	04.30.2020 23:44
a,a,a-Trifluorotoluene	98		99		71-121	%	04.30.2020 23:44

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:

US9717

www.xenco.com

Page

of 2

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: ☐

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	
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:	New Mexico BW-BX	Turn Around	
Project Number:	11573	Routine:	☒
Project Location:	Endeavor	Rush:	☐
Sampler's Name:	Eric Mejia	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes	No	Well Ice:	Yes	No
Temperature (°C):	0.00			Thermometer:	119	
Received Intact:	Yes	No				
Cooler Custody Seals:	Yes	No		Correction Factor:		
Sample Custody Seals:	Yes	No		Total Containers:	205	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
-----------------------	--------	--------------	--------------	-------

EW15A	S	4-20-20		
SWA	S	4-20-20		
FS12C	S	4-22-20		4'
FS17-2A	S	4-22-20		4'
FS13C	S	4-22-20		4'
FS17-1C	S	4-22-20		4'
FS18-3C	S	4-22-20		4'
FS18-4A	S	4-22-20		4'
FS18-6A	S	4-22-20		4'
FS18-2B	S	4-22-20		4'

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

Note: 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)

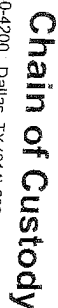
Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

1	See Map	Eric Canille	4-23-20/2:40	Eric Canille	0.9	1631 / 245.1 / 7470 / 7471 : Hg
3						
5						



Work Order No.

U12659 No.

Revised Date 10/14/19 Rev. 2019. -

Inter-Office Shipment

IOS Number : **62797**

Date/Time: 04.28.2020

Created by: Allison Johnson

Please send report to: Jessica Kramer

Lab# From: **Midland**

Delivery Priority:

Address: 1211 W. Florida Ave

Lab# To: **Lubbock**

Air Bill No.: 770342225205

E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
659717-003	S	FS12C	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-004	S	FS17-2A	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-005	S	FS13C	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-006	S	FS17-1C	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-007	S	FS18-3C	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-008	S	FS-4A	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-009	S	FS1-6A	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-010	S	FS18-2B	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-011	S	FS18-5A	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-012	S	FS 15A	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-013	S	FS14C	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	
659717-014	S	FS 16A	04.22.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.06.2020	JKR	BR4FBZ BZ BZME EBZ	

Inter Office Shipment or Sample Comments:

Relinquished By:



Allison Johnson

Date Relinquished: 04.28.2020

Received By:



Ashley Derstine

Date Received: 04.29.2020

Cooler Temperature: 3.8



Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 62797

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Allison Johnson

Date Sent: 04.28.2020 03.52 PM

Received By: Johnny Grindstaff

Date Received: 04.29.2020 08.15 PM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	3.77
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	No

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Ashley Derstine

Date: 04.29.2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.24.2020 11.25.00 AM

Work Order #: 659717

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.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	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: 04.24.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.24.2020



Certificate of Analysis Summary 660091

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Endeavor

Date Received in Lab: Wed 04.29.2020 12:00
Report Date: 05.01.2020 12:32
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660091-001	660091-002	660091-003	660091-004		
	Field Id:	EW15	EW 16-3	NW 18-2	WW21		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	04.27.2020 00:00	04.27.2020 00:00	04.27.2020 00:00	04.27.2020 00:00		
Chloride by EPA 300	Extracted:	04.30.2020 12:00	04.30.2020 12:00				
	Analyzed:	04.30.2020 22:09	04.30.2020 22:25				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		40.1 4.98	110 4.97				
TPH By SW8015 Mod	Extracted:			*** ** *	*** ** *		
	Analyzed:			04.29.2020 18:12	04.29.2020 18:33		
	Units/RL:			mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)				<49.9 49.9	<49.9 49.9		
Diesel Range Organics (DRO)				160 49.9	581 49.9		
Motor Oil Range Hydrocarbons (MRO)				80.2 49.9	275 49.9		
Total TPH				240 49.9	856 49.9		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 660091

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

New Mexico BW-BX

11573

05.01.2020

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)



05.01.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **660091**

New Mexico BW-BX

Project Address: Endeaver

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 XENCO Report Number(s) 660091. 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. 660091 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'. The signature is written in a cursive, flowing style.

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 660091****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EW15	S	04.27.2020 00:00		660091-001
EW 16-3	S	04.27.2020 00:00		660091-002
NW 18-2	S	04.27.2020 00:00		660091-003
WW21	S	04.27.2020 00:00		660091-004



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 660091

Report Date: 05.01.2020
Date Received: 04.29.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660091

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: EW15	Matrix: Soil	Date Received: 04.29.2020 12:00
Lab Sample Id: 660091-001	Date Collected: 04.27.2020 00:00	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: SPC		% Moisture:
Analyst: SPC	Date Prep: 04.30.2020 12:00	Basis: Wet Weight
Seq Number: 3124714		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	40.1	4.98	mg/kg	04.30.2020 22:09		1



Certificate of Analytical Results 660091

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **EW 16-3**
Lab Sample Id: 660091-002

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.29.2020 12:00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 04.30.2020 12:00

Basis: Wet Weight

Seq Number: 3124714

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	110	4.97	mg/kg	04.30.2020 22:25		1



Certificate of Analytical Results 660091

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **NW 18-2**
Lab Sample Id: 660091-003

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.29.2020 12:00

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.29.2020 11:30

Basis: Wet Weight

Seq Number: 3124630

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.29.2020 18:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	160	49.9	mg/kg	04.29.2020 18:12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	80.2	49.9	mg/kg	04.29.2020 18:12		1
Total TPH	PHC635	240	49.9	mg/kg	04.29.2020 18:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	04.29.2020 18:12	
o-Terphenyl	84-15-1	101	%	70-130	04.29.2020 18:12	



Certificate of Analytical Results 660091

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW21**
Lab Sample Id: 660091-004

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.29.2020 12:00

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.29.2020 11:30

Basis: Wet Weight

Seq Number: 3124630

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.29.2020 18:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	581	49.9	mg/kg	04.29.2020 18:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	275	49.9	mg/kg	04.29.2020 18:33		1
Total TPH	PHC635	856	49.9	mg/kg	04.29.2020 18:33		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	89	%	70-130	04.29.2020 18:33		
o-Terphenyl	84-15-1	92	%	70-130	04.29.2020 18:33		



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
New Mexico BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3124714

MB Sample Id: 7702368-1-BLK

Matrix: Solid

LCS Sample Id: 7702368-1-BKS

Prep Method: E300P

Date Prep: 04.30.2020

LCSD Sample Id: 7702368-1-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	270	108	264	106	90-110	2	20	mg/kg	04.30.2020 21:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3124714

Parent Sample Id: 660066-008

Matrix: Soil

MS Sample Id: 660066-008 S

Prep Method: E300P

Date Prep: 04.30.2020

MSD Sample Id: 660066-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	311	251	548	94	586	110	90-110	7	20	mg/kg	04.30.2020 21:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3124714

Parent Sample Id: 660097-002

Matrix: Soil

MS Sample Id: 660097-002 S

Prep Method: E300P

Date Prep: 04.30.2020

MSD Sample Id: 660097-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	114	323	480	113	436	100	90-110	10	20	mg/kg	04.30.2020 22:56	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124630

MB Sample Id: 7702337-1-BLK

Matrix: Solid

LCS Sample Id: 7702337-1-BKS

Prep Method: SW8015P

Date Prep: 04.29.2020

LCSD Sample Id: 7702337-1-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	968	97	956	96	70-130	1	20	mg/kg	04.29.2020 11:52	
Diesel Range Organics (DRO)	<50.0	1000	1090	109	1030	103	70-130	6	20	mg/kg	04.29.2020 11:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		101		100		70-130	%	04.29.2020 11:52
o-Terphenyl	105		111		107		70-130	%	04.29.2020 11:52

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124630

Matrix: Solid

MB Sample Id: 7702337-1-BLK

Prep Method: SW8015P

Date Prep: 04.29.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.29.2020 11:31	

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
New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124630

Parent Sample Id: 660041-021

Matrix: Soil

MS Sample Id: 660041-021 S

Prep Method: SW8015P

Date Prep: 04.29.2020

MSD Sample Id: 660041-021 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	1040	104	1050	105	70-130	1	20	mg/kg	04.29.2020 12:56	
Diesel Range Organics (DRO)	<49.9	997	1110	111	1140	114	70-130	3	20	mg/kg	04.29.2020 12:56	
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1-Chlorooctane			90			92		70-130		%	04.29.2020 12:56	
o-Terphenyl			101			105		70-130		%	04.29.2020 12:56	

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 508-3334
 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
 Alt: (561) 770-449-8800

Work Order No. 1000001

www.xenco.com Page of

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	
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:	New Mexico RM-BX	Turn Around	
Project Number:	11573	Routine:	☒
Project Location:	Endeavor	Rush:	☐
Sampler's Name:	Eric Mejia	Due Date:	
PO #:			

ANALYSIS REQUEST

Program: UST/PT ☐ PRR ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level: ☐ Level I ☐ Level II ☐ PST/US ☐ TRR ☐ Level III ☐
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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005	ANALYSIS REQUEST	Preservative Codes
EW15	S	4-27-20									
EW16-3	S	4-27-20									
WW18-2	S	4-27-20									
WW21	S	4-27-20									

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

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time



POSTNET 4804-4804 PRT EXP 01/21

41 MAF

TX-US LBB
MAFA

TRK# 4705 2523 4888
0201

WED - 29 APR HOLD
PRIORITY OVERNIGHT
HLD



MIDLAND TX 79711

3600 COUNTY ROAD 1276 SOUTH
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER

XENCO LABORATORIES HOLD FOR PICK UP
HOBBS, NM 88240
UNITED STATES US

MAIL SERVICES ETC, LLC
4008 N GRIMES

ORIGIN ID: HOBBA (010) 392-1000

BILL RECIPIENT
ACTWGT: 10.00 LB MAN
CDD: 0909328/CDFE3211
DIMS: 14x12x10 IN

551C1/C603/104C

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.29.2020 12.00.00 PM

Work Order #: 660091

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

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
#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

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: 04.29.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.29.2020



Certificate of Analysis Summary 660829

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573

Contact: PM

Project Location: Rural Chavas County, New Mexico

Date Received in Lab: Thu 05.07.2020 10:30

Report Date: 05.08.2020 12:45

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660829-001	660829-002				
	Field Id:	WW 21B	NW 18-2A				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	05.06.2020 00:00	05.06.2020 00:00				
TPH By SW8015 Mod	Extracted:	05.07.2020 12:00	05.07.2020 12:00				
	Analyzed:	05.07.2020 20:15	05.07.2020 20:15				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9				
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9				
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9				
Total TPH		<49.9 49.9	<49.9 49.9				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 660829

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

New Mexico BW-BX

11573

05.08.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
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 (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.08.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **660829**

New Mexico BW-BX

Project Address: Rural Chavas County, New Mexico

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 XENCO Report Number(s) 660829. 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. 660829 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'. The signature is written in a cursive, flowing style.

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 660829****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WW 21B	S	05.06.2020 00:00		660829-001
NW 18-2A	S	05.06.2020 00:00		660829-002



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 660829

Report Date: 05.08.2020
Date Received: 05.07.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660829

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **WW 21B**
Lab Sample Id: 660829-001

Matrix: Soil
Date Collected: 05.06.2020 00:00

Date Received: 05.07.2020 10:30

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.07.2020 12:00

Basis: Wet Weight

Seq Number: 3125395

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	05.07.2020 20:15	
o-Terphenyl	84-15-1	86	%	70-130	05.07.2020 20:15	



Certificate of Analytical Results 660829

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **NW 18-2A**

Matrix: Soil

Date Received: 05.07.2020 10:30

Lab Sample Id: 660829-002

Date Collected: 05.06.2020 00:00

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.07.2020 12:00

Basis: Wet Weight

Seq Number: 3125393

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.07.2020 20:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	05.07.2020 20:15	
o-Terphenyl	84-15-1	92	%	70-130	05.07.2020 20:15	



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
New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125395

MB Sample Id: 7702848-1-BLK

Matrix: Solid

LCS Sample Id: 7702848-1-BKS

Prep Method: SW8015P

Date Prep: 05.07.2020

LCSD Sample Id: 7702848-1-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	968	97	904	90	70-130	7	20	mg/kg	05.07.2020 11:42	
Diesel Range Organics (DRO)	<50.0	1000	948	95	869	87	70-130	9	20	mg/kg	05.07.2020 11:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		98		90		70-130	%	05.07.2020 11:42
o-Terphenyl	100		97		90		70-130	%	05.07.2020 11:42

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125393

MB Sample Id: 7702928-1-BLK

Matrix: Solid

LCS Sample Id: 7702928-1-BKS

Prep Method: SW8015P

Date Prep: 05.07.2020

LCSD Sample Id: 7702928-1-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	966	97	975	98	70-130	1	20	mg/kg	05.07.2020 11:42	
Diesel Range Organics (DRO)	<50.0	1000	998	100	973	97	70-130	3	20	mg/kg	05.07.2020 11:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		97		97		70-130	%	05.07.2020 11:42
o-Terphenyl	103		96		96		70-130	%	05.07.2020 11:42

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125395

Matrix: Solid
MB Sample Id: 7702848-1-BLK

Prep Method: SW8015P

Date Prep: 05.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.07.2020 11:21	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125393

Matrix: Solid
MB Sample Id: 7702928-1-BLK

Prep Method: SW8015P

Date Prep: 05.07.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.07.2020 11:21	

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
New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125395

Parent Sample Id: 660652-041

Matrix: Soil

MS Sample Id: 660652-041 S

Prep Method: SW8015P

Date Prep: 05.07.2020

MSD Sample Id: 660652-041 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	961	96	820	82	70-130	16	20	mg/kg	05.07.2020 12:45	
Diesel Range Organics (DRO)	<49.9	998	936	94	832	83	70-130	12	20	mg/kg	05.07.2020 12:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		92		70-130	%	05.07.2020 12:45
o-Terphenyl	112		92		70-130	%	05.07.2020 12:45

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125393

Parent Sample Id: 660830-001

Matrix: Soil

MS Sample Id: 660830-001 S

Prep Method: SW8015P

Date Prep: 05.07.2020

MSD Sample Id: 660830-001 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	911	91	930	93	70-130	2	20	mg/kg	05.07.2020 12:45	
Diesel Range Organics (DRO)	<49.9	997	878	88	887	89	70-130	1	20	mg/kg	05.07.2020 12:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		99		70-130	%	05.07.2020 12:45
o-Terphenyl	86		85		70-130	%	05.07.2020 12:45

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 794-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 382-7650, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0800
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6700
 Atlanta, GA (770) 449-8800

Work Order No:

100899

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

Work Order Comments

Program: UST/PS ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund ☐

State of Project:

Reporting Level: ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

[illegible]

of service. Xanoco will be liable only for the cost of stamps 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 Xanoco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xanoco, 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>[Signature]</i>	<i>[Signature]</i>	5/6/20	2 <i>[Signature]</i>	<i>[Signature]</i>	5/11/20
3			4		1030
5			6		



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MIDLAND TX 79711

FEDEX EXPRESS SHIP CENTER
3600 COUNTY ROAD 1276 SOUTH

XENCO LABORATORIES HOLD FOR PICK UP

SHIP DATE: 06MAY20
ACTWGT: 8.00 LB MAN
CAD: 0909328/CFFE3211
DIMS: 13x10x9 IN
BILL RECIPIENT

ORIGIN ID: H08A (b/b) 392-/b5v
MAIL SERVICES ETC, LLC
4008 N GRIMES
HOBBS, NM 88240
UNITED STATES US

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 05.07.2020 10.30.00 AM

Work Order #: 660829

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#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: 05.07.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.08.2020



Certificate of Analysis Summary 661555

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Lance Crenshaw
Project Location: Rural Chaves County, New Mexico

Date Received in Lab: Thu 05.14.2020 11:05
Report Date: 05.15.2020 14:53
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661555-001	661555-002	661555-003	661555-004	661555-005	661555-006
	<i>Field Id:</i>	FS22	FS23	FS24	FS25	FS26	FS27
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00
	<i>Analyzed:</i>	05.14.2020 22:56	05.14.2020 23:16	05.14.2020 23:37	05.14.2020 23:57	05.15.2020 00:17	05.15.2020 00:38
	<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	0.00298 0.00200	0.0139 0.00200	0.00261 0.00200	0.00346 0.00199
Toluene		0.00791 0.00200	0.00598 0.00199	0.0153 0.00200	0.0453 0.00200	0.00873 0.00200	0.0117 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00399 0.00399	<0.00399 0.00399	<0.00400 0.00400	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		0.00791 0.00200	0.00598 0.00199	0.0183 0.00200	0.0592 0.00200	0.0113 0.00200	0.0152 0.00199
Chloride by EPA 300	<i>Extracted:</i>	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05
	<i>Analyzed:</i>	05.15.2020 00:03	05.15.2020 00:09	05.15.2020 00:15	05.14.2020 23:46	05.15.2020 00:21	05.15.2020 00:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2540 24.8	5140 49.9	1320 25.3	58.4 5.03	1090 4.96	5960 50.3
TPH By SW8015 Mod	<i>Extracted:</i>	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10
	<i>Analyzed:</i>	05.14.2020 15:14	05.14.2020 15:35	05.14.2020 16:00	05.14.2020 16:21	05.14.2020 16:42	05.14.2020 17:25
	<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	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		56.9 49.9	<50.0 50.0	64.4 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		56.9 49.9	<50.0 50.0	64.4 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 661555

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Lance Crenshaw
Project Location: Rural Chaves County, New Mexico

Date Received in Lab: Thu 05.14.2020 11:05
Report Date: 05.15.2020 14:53
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	661555-007	661555-008	661555-009	661555-010	661555-011	661555-012
	<i>Field Id:</i>	FS28	FS29	FS30	FS31	FS32	FS33
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00
	<i>Analyzed:</i>	05.15.2020 00:58	05.15.2020 01:19	05.15.2020 01:39	05.15.2020 03:01	05.15.2020 03:22	05.15.2020 03:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.00712 0.00199	0.0177 0.00202	0.00452 0.00200	0.00482 0.00199	0.00741 0.00199	0.0204 0.00200
Toluene		0.0337 0.00199	0.0616 0.00202	0.0188 0.00200	0.0130 0.00199	0.0263 0.00199	0.0893 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00403 0.00403	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398	<0.00400 0.00400
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		0.0408 0.00199	0.0793 0.00202	0.0233 0.00200	0.0178 0.00199	0.0337 0.00199	0.110 0.00200
Chloride by EPA 300	<i>Extracted:</i>	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05
	<i>Analyzed:</i>	05.15.2020 00:48	05.15.2020 00:53	05.15.2020 00:59	05.15.2020 01:05	05.15.2020 01:10	05.15.2020 01:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		4230 25.0	1600 24.8	983 5.05	331 5.02	174 4.98	26.7 4.97
TPH By SW8015 Mod	<i>Extracted:</i>	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10
	<i>Analyzed:</i>	05.14.2020 17:47	05.14.2020 18:08	05.14.2020 18:29	05.14.2020 18:50	05.14.2020 19:11	05.14.2020 19:32
	<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	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	58.8 49.9	72.7 49.8	<50.0 50.0
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	<50.0 50.0
Total TPH		<50.0 50.0	<50.0 50.0	<50.0 50.0	58.8 49.9	72.7 49.8	<50.0 50.0

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 661555

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: Lance Crenshaw
Project Location: Rural Chaves County, New Mexico

Date Received in Lab: Thu 05.14.2020 11:05
Report Date: 05.15.2020 14:53
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	661555-013	661555-014	661555-015			
	Field Id:	FS34	FS35	FS36			
	Depth:						
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	05.12.2020 00:00	05.12.2020 00:00	05.12.2020 00:00			
BTEX by EPA 8021B	Extracted:	05.14.2020 17:00	05.14.2020 17:00	05.14.2020 17:00			
	Analyzed:	05.15.2020 04:02	05.15.2020 04:23	05.15.2020 04:43			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		0.0107 0.00199	0.00288 0.00200	0.00342 0.00201			
Toluene		0.0362 0.00199	0.0107 0.00200	0.0160 0.00201			
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
m,p-Xylenes		<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402			
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201			
Total BTEX		0.0469 0.00199	0.0136 0.00200	0.0194 0.00201			
Chloride by EPA 300	Extracted:	05.14.2020 15:05	05.14.2020 15:05	05.14.2020 15:05			
	Analyzed:	05.15.2020 01:33	05.15.2020 01:50	05.15.2020 01:56			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		5580 49.9	4890 50.0	5050 50.0			
TPH By SW8015 Mod	Extracted:	05.14.2020 11:10	05.14.2020 11:10	05.14.2020 11:10			
	Analyzed:	05.14.2020 19:54	05.14.2020 20:15	05.14.2020 20:36			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9			
Diesel Range Organics (DRO)		94.9 49.9	90.7 50.0	87.1 49.9			
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.9 49.9			
Total TPH		94.9 49.9	90.7 50.0	87.1 49.9			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 661555

for

Etech Environmental & Safety Solution, Inc

Project Manager: Lance Crenshaw

New Mexico BW-BX

11573

05.15.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
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 (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



05.15.2020

Project Manager: **Lance Crenshaw**
Etech Environmental & Safety Solution, Inc
P.O. Box 62228
Midland, TX 79711

Reference: XENCO Report No(s): **661555**
New Mexico BW-BX
Project Address: Rural Chaves County, New Mexico

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) 661555. 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. 661555 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'. The signature is written in a cursive, flowing style.

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 661555****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS22	S	05.12.2020 00:00		661555-001
FS23	S	05.12.2020 00:00		661555-002
FS24	S	05.12.2020 00:00		661555-003
FS25	S	05.12.2020 00:00		661555-004
FS26	S	05.12.2020 00:00		661555-005
FS27	S	05.12.2020 00:00		661555-006
FS28	S	05.12.2020 00:00		661555-007
FS29	S	05.12.2020 00:00		661555-008
FS30	S	05.12.2020 00:00		661555-009
FS31	S	05.12.2020 00:00		661555-010
FS32	S	05.12.2020 00:00		661555-011
FS33	S	05.12.2020 00:00		661555-012
FS34	S	05.12.2020 00:00		661555-013
FS35	S	05.12.2020 00:00		661555-014
FS36	S	05.12.2020 00:00		661555-015



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 661555

Report Date: 05.15.2020
Date Received: 05.14.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3126011 BTEX by EPA 8021B

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

Samples affected are: 661555-009.



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS22** Matrix: **Soil** Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-001 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 05.14.2020 15:05 Basis: **Wet Weight**
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2540	24.8	mg/kg	05.15.2020 00:03		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 05.14.2020 11:10 Basis: **Wet Weight**
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 15:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	56.9	49.9	mg/kg	05.14.2020 15:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 15:14	U	1
Total TPH	PHC635	56.9	49.9	mg/kg	05.14.2020 15:14		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	05.14.2020 15:14	
o-Terphenyl	84-15-1	103	%	70-130	05.14.2020 15:14	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS22**
Lab Sample Id: 661555-001

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.14.2020 22:56	U	1
Toluene	108-88-3	0.00791	0.00200	mg/kg	05.14.2020 22:56		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.14.2020 22:56	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.14.2020 22:56	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.14.2020 22:56	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.14.2020 22:56	U	1
Total BTEX		0.00791	0.00200	mg/kg	05.14.2020 22:56		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.14.2020 22:56		
4-Bromofluorobenzene	460-00-4	126	%	70-130	05.14.2020 22:56		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS23** Matrix: **Soil** Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-002 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 05.14.2020 15:05 Basis: **Wet Weight**
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5140	49.9	mg/kg	05.15.2020 00:09		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 05.14.2020 11:10 Basis: **Wet Weight**
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 15:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 15:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 15:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 15:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	05.14.2020 15:35	
o-Terphenyl	84-15-1	96	%	70-130	05.14.2020 15:35	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS23**
Lab Sample Id: 661555-002

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.14.2020 23:16	U	1
Toluene	108-88-3	0.00598	0.00199	mg/kg	05.14.2020 23:16		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.14.2020 23:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.14.2020 23:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.14.2020 23:16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.14.2020 23:16	U	1
Total BTEX		0.00598	0.00199	mg/kg	05.14.2020 23:16		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	128	%	70-130	05.14.2020 23:16		
1,4-Difluorobenzene	540-36-3	118	%	70-130	05.14.2020 23:16		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS24** Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-003 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1320	25.3	mg/kg	05.15.2020 00:15		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	64.4	49.9	mg/kg	05.14.2020 16:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 16:00	U	1
Total TPH	PHC635	64.4	49.9	mg/kg	05.14.2020 16:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	05.14.2020 16:00	
o-Terphenyl	84-15-1	98	%	70-130	05.14.2020 16:00	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS24**
Lab Sample Id: 661555-003

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00298	0.00200	mg/kg	05.14.2020 23:37		1
Toluene	108-88-3	0.0153	0.00200	mg/kg	05.14.2020 23:37		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.14.2020 23:37	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.14.2020 23:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.14.2020 23:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.14.2020 23:37	U	1
Total BTEX		0.0183	0.00200	mg/kg	05.14.2020 23:37		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	122	%	70-130	05.14.2020 23:37		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.14.2020 23:37		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS25 Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-004 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.4	5.03	mg/kg	05.14.2020 23:46		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 16:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 16:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 16:21	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 16:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	05.14.2020 16:21	
o-Terphenyl	84-15-1	102	%	70-130	05.14.2020 16:21	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS25
Lab Sample Id: 661555-004

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0139	0.00200	mg/kg	05.14.2020 23:57		1
Toluene	108-88-3	0.0453	0.00200	mg/kg	05.14.2020 23:57		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.14.2020 23:57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.14.2020 23:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.14.2020 23:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.14.2020 23:57	U	1
Total BTEX		0.0592	0.00200	mg/kg	05.14.2020 23:57		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	05.14.2020 23:57		
1,4-Difluorobenzene	540-36-3	124	%	70-130	05.14.2020 23:57		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS26** Matrix: **Soil** Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-005 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 05.14.2020 15:05 Basis: **Wet Weight**
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1090	4.96	mg/kg	05.15.2020 00:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 05.14.2020 11:10 Basis: **Wet Weight**
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 16:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 16:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 16:42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 16:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	05.14.2020 16:42	
o-Terphenyl	84-15-1	105	%	70-130	05.14.2020 16:42	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS26**
Lab Sample Id: 661555-005

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00261	0.00200	mg/kg	05.15.2020 00:17		1
Toluene	108-88-3	0.00873	0.00200	mg/kg	05.15.2020 00:17		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 00:17	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.15.2020 00:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 00:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 00:17	U	1
Total BTEX		0.0113	0.00200	mg/kg	05.15.2020 00:17		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	05.15.2020 00:17		
1,4-Difluorobenzene	540-36-3	122	%	70-130	05.15.2020 00:17		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS27 Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-006 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5960	50.3	mg/kg	05.15.2020 00:42		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 17:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.14.2020 17:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 17:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.14.2020 17:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	05.14.2020 17:25	
o-Terphenyl	84-15-1	110	%	70-130	05.14.2020 17:25	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS27**
Lab Sample Id: 661555-006

Matrix: **Soil**
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: **KTL**

% Moisture:

Analyst: **KTL**

Date Prep: 05.14.2020 17:00

Basis: **Wet Weight**

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00346	0.00199	mg/kg	05.15.2020 00:38		1
Toluene	108-88-3	0.0117	0.00199	mg/kg	05.15.2020 00:38		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 00:38	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 00:38	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 00:38	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 00:38	U	1
Total BTEX		0.0152	0.00199	mg/kg	05.15.2020 00:38		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	119	%	70-130	05.15.2020 00:38		
1,4-Difluorobenzene	540-36-3	123	%	70-130	05.15.2020 00:38		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS28** Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-007 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4230	25.0	mg/kg	05.15.2020 00:48		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 17:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 17:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 17:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 17:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	05.14.2020 17:47	
o-Terphenyl	84-15-1	89	%	70-130	05.14.2020 17:47	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS28**
Lab Sample Id: 661555-007

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00712	0.00199	mg/kg	05.15.2020 00:58		1
Toluene	108-88-3	0.0337	0.00199	mg/kg	05.15.2020 00:58		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 00:58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 00:58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 00:58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 00:58	U	1
Total BTEX		0.0408	0.00199	mg/kg	05.15.2020 00:58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	05.15.2020 00:58		
1,4-Difluorobenzene	540-36-3	121	%	70-130	05.15.2020 00:58		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS29** Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-008 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1600	24.8	mg/kg	05.15.2020 00:53		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 18:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 18:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 18:08	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 18:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	05.14.2020 18:08	
o-Terphenyl	84-15-1	91	%	70-130	05.14.2020 18:08	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS29**
Lab Sample Id: 661555-008

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0177	0.00202	mg/kg	05.15.2020 01:19		1
Toluene	108-88-3	0.0616	0.00202	mg/kg	05.15.2020 01:19		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	05.15.2020 01:19	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	05.15.2020 01:19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	05.15.2020 01:19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	05.15.2020 01:19	U	1
Total BTEX		0.0793	0.00202	mg/kg	05.15.2020 01:19		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	05.15.2020 01:19		
4-Bromofluorobenzene	460-00-4	119	%	70-130	05.15.2020 01:19		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS30** Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-009 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	983	5.05	mg/kg	05.15.2020 00:59		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 18:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 18:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 18:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 18:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	05.14.2020 18:29	
o-Terphenyl	84-15-1	94	%	70-130	05.14.2020 18:29	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS30**
Lab Sample Id: 661555-009

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00452	0.00200	mg/kg	05.15.2020 01:39		1
Toluene	108-88-3	0.0188	0.00200	mg/kg	05.15.2020 01:39		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 01:39	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.15.2020 01:39	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 01:39	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 01:39	U	1
Total BTEX		0.0233	0.00200	mg/kg	05.15.2020 01:39		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.15.2020 01:39		
4-Bromofluorobenzene	460-00-4	132	%	70-130	05.15.2020 01:39	**	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS31** Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-010 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	331	5.02	mg/kg	05.15.2020 01:05		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 18:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	58.8	49.9	mg/kg	05.14.2020 18:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 18:50	U	1
Total TPH	PHC635	58.8	49.9	mg/kg	05.14.2020 18:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	05.14.2020 18:50	
o-Terphenyl	84-15-1	93	%	70-130	05.14.2020 18:50	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS31**
Lab Sample Id: 661555-010

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00482	0.00199	mg/kg	05.15.2020 03:01		1
Toluene	108-88-3	0.0130	0.00199	mg/kg	05.15.2020 03:01		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 03:01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 03:01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 03:01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 03:01	U	1
Total BTEX		0.0178	0.00199	mg/kg	05.15.2020 03:01		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	05.15.2020 03:01		
1,4-Difluorobenzene	540-36-3	113	%	70-130	05.15.2020 03:01		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS32** Matrix: **Soil** Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-011 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	174	4.98	mg/kg	05.15.2020 01:10		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.14.2020 19:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	72.7	49.8	mg/kg	05.14.2020 19:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.14.2020 19:11	U	1
Total TPH	PHC635	72.7	49.8	mg/kg	05.14.2020 19:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-130	05.14.2020 19:11	
o-Terphenyl	84-15-1	98	%	70-130	05.14.2020 19:11	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS32**
Lab Sample Id: 661555-011

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00741	0.00199	mg/kg	05.15.2020 03:22		1
Toluene	108-88-3	0.0263	0.00199	mg/kg	05.15.2020 03:22		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 03:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 03:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 03:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 03:22	U	1
Total BTEX		0.0337	0.00199	mg/kg	05.15.2020 03:22		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	127	%	70-130	05.15.2020 03:22		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.15.2020 03:22		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS33** Matrix: **Soil** Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-012 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 05.14.2020 15:05 Basis: **Wet Weight**
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	26.7	4.97	mg/kg	05.15.2020 01:28		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 05.14.2020 11:10 Basis: **Wet Weight**
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 19:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.14.2020 19:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 19:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.14.2020 19:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	05.14.2020 19:32	
o-Terphenyl	84-15-1	101	%	70-130	05.14.2020 19:32	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS33**
Lab Sample Id: 661555-012

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0204	0.00200	mg/kg	05.15.2020 03:42		1
Toluene	108-88-3	0.0893	0.00200	mg/kg	05.15.2020 03:42		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 03:42	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	05.15.2020 03:42	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 03:42	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 03:42	U	1
Total BTEX		0.110	0.00200	mg/kg	05.15.2020 03:42		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	05.15.2020 03:42		
1,4-Difluorobenzene	540-36-3	120	%	70-130	05.15.2020 03:42		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS34** Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-013 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5580	49.9	mg/kg	05.15.2020 01:33		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 19:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	94.9	49.9	mg/kg	05.14.2020 19:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 19:54	U	1
Total TPH	PHC635	94.9	49.9	mg/kg	05.14.2020 19:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	05.14.2020 19:54	
o-Terphenyl	84-15-1	93	%	70-130	05.14.2020 19:54	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS34**
Lab Sample Id: 661555-013

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0107	0.00199	mg/kg	05.15.2020 04:02		1
Toluene	108-88-3	0.0362	0.00199	mg/kg	05.15.2020 04:02		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.15.2020 04:02	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.15.2020 04:02	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.15.2020 04:02	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.15.2020 04:02	U	1
Total BTEX		0.0469	0.00199	mg/kg	05.15.2020 04:02		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	120	%	70-130	05.15.2020 04:02		
4-Bromofluorobenzene	460-00-4	120	%	70-130	05.15.2020 04:02		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS35 Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-014 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4890	50.0	mg/kg	05.15.2020 01:50		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.14.2020 20:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	90.7	50.0	mg/kg	05.14.2020 20:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.14.2020 20:15	U	1
Total TPH	PHC635	90.7	50.0	mg/kg	05.14.2020 20:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	05.14.2020 20:15	
o-Terphenyl	84-15-1	102	%	70-130	05.14.2020 20:15	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: FS35
Lab Sample Id: 661555-014

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00288	0.00200	mg/kg	05.15.2020 04:23		1
Toluene	108-88-3	0.0107	0.00200	mg/kg	05.15.2020 04:23		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.15.2020 04:23	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	05.15.2020 04:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.15.2020 04:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.15.2020 04:23	U	1
Total BTEX		0.0136	0.00200	mg/kg	05.15.2020 04:23		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	05.15.2020 04:23		
1,4-Difluorobenzene	540-36-3	115	%	70-130	05.15.2020 04:23		



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS36** Matrix: Soil Date Received: 05.14.2020 11:05
 Lab Sample Id: 661555-015 Date Collected: 05.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 05.14.2020 15:05 Basis: Wet Weight
 Seq Number: 3126007

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5050	50.0	mg/kg	05.15.2020 01:56		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 05.14.2020 11:10 Basis: Wet Weight
 Seq Number: 3126065

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.14.2020 20:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	87.1	49.9	mg/kg	05.14.2020 20:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.14.2020 20:36	U	1
Total TPH	PHC635	87.1	49.9	mg/kg	05.14.2020 20:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	05.14.2020 20:36	
o-Terphenyl	84-15-1	93	%	70-130	05.14.2020 20:36	



Certificate of Analytical Results 661555

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS36**
Lab Sample Id: 661555-015

Matrix: Soil
Date Collected: 05.12.2020 00:00

Date Received: 05.14.2020 11:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 05.14.2020 17:00

Basis: Wet Weight

Seq Number: 3126011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00342	0.00201	mg/kg	05.15.2020 04:43		1
Toluene	108-88-3	0.0160	0.00201	mg/kg	05.15.2020 04:43		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.15.2020 04:43	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.15.2020 04:43	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.15.2020 04:43	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.15.2020 04:43	U	1
Total BTEX		0.0194	0.00201	mg/kg	05.15.2020 04:43		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	126	%	70-130	05.15.2020 04:43		
1,4-Difluorobenzene	540-36-3	117	%	70-130	05.15.2020 04:43		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **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
New Mexico BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3126007

MB Sample Id: 7703342-1-BLK

Matrix: Solid

LCS Sample Id: 7703342-1-BKS

Prep Method: E300P

Date Prep: 05.14.2020

LCSD Sample Id: 7703342-1-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	236	94	90-110	3	20	mg/kg	05.14.2020 23:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3126007

Parent Sample Id: 661555-004

Matrix: Soil

MS Sample Id: 661555-004 S

Prep Method: E300P

Date Prep: 05.14.2020

MSD Sample Id: 661555-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	58.4	252	298	95	292	93	90-110	2	20	mg/kg	05.14.2020 23:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3126007

Parent Sample Id: 661555-011

Matrix: Soil

MS Sample Id: 661555-011 S

Prep Method: E300P

Date Prep: 05.14.2020

MSD Sample Id: 661555-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	174	249	425	101	426	101	90-110	0	20	mg/kg	05.15.2020 01:16	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3126065

MB Sample Id: 7703327-1-BLK

Matrix: Solid

LCS Sample Id: 7703327-1-BKS

Prep Method: SW8015P

Date Prep: 05.14.2020

LCSD Sample Id: 7703327-1-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	829	83	905	91	70-130	9	20	mg/kg	05.14.2020 12:03	
Diesel Range Organics (DRO)	<50.0	1000	856	86	893	89	70-130	4	20	mg/kg	05.14.2020 12:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		104		98		70-130	%	05.14.2020 12:03
o-Terphenyl	98		100		102		70-130	%	05.14.2020 12:03

Analytical Method: TPH By SW8015 Mod

Seq Number: 3126065

Matrix: Solid

MB Sample Id: 7703327-1-BLK

Prep Method: SW8015P

Date Prep: 05.14.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.14.2020 11:42	

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 New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3126065

Parent Sample Id: 661472-001

Matrix: Soil

MS Sample Id: 661472-001 S

Prep Method: SW8015P

Date Prep: 05.14.2020

MSD Sample Id: 661472-001 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	848	85	832	84	70-130	2	20	mg/kg	05.14.2020 13:07	
Diesel Range Organics (DRO)	<50.0	999	864	86	857	86	70-130	1	20	mg/kg	05.14.2020 13:07	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		94		70-130	%	05.14.2020 13:07
o-Terphenyl	104		99		70-130	%	05.14.2020 13:07

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126011

MB Sample Id: 7703376-1-BLK

Matrix: Solid

LCS Sample Id: 7703376-1-BKS

Prep Method: SW5035A

Date Prep: 05.14.2020

LCSD Sample Id: 7703376-1-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	0.109	109	0.110	110	70-130	1	35	mg/kg	05.14.2020 20:33	
Toluene	<0.00200	0.100	0.114	114	0.118	118	70-130	3	35	mg/kg	05.14.2020 20:33	
Ethylbenzene	<0.00200	0.100	0.104	104	0.107	107	70-130	3	35	mg/kg	05.14.2020 20:33	
m,p-Xylenes	<0.00400	0.200	0.206	103	0.214	107	70-130	4	35	mg/kg	05.14.2020 20:33	
o-Xylene	<0.00200	0.100	0.100	100	0.105	105	70-130	5	35	mg/kg	05.14.2020 20:33	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		107		107		70-130	%	05.14.2020 20:33
4-Bromofluorobenzene	99		107		108		70-130	%	05.14.2020 20:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3126011

Parent Sample Id: 661555-001

Matrix: Soil

MS Sample Id: 661555-001 S

Prep Method: SW5035A

Date Prep: 05.14.2020

MSD Sample Id: 661555-001 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	0.0830	84	0.0938	94	70-130	12	35	mg/kg	05.14.2020 21:14	
Toluene	0.00791	0.0994	0.0887	81	0.104	96	70-130	16	35	mg/kg	05.14.2020 21:14	
Ethylbenzene	<0.00199	0.0994	0.0710	71	0.0872	88	70-130	20	35	mg/kg	05.14.2020 21:14	
m,p-Xylenes	<0.00398	0.199	0.143	72	0.175	88	70-130	20	35	mg/kg	05.14.2020 21:14	
o-Xylene	<0.00199	0.0994	0.0700	70	0.0860	86	70-130	21	35	mg/kg	05.14.2020 21:14	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		111		70-130	%	05.14.2020 21:14
4-Bromofluorobenzene	111		117		70-130	%	05.14.2020 21:14

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:

1001555

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Page 1 of 2

Project Manager:	Lance Crenshaw	Bill to: (if different)	Teffanie 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@etechny.com + Client

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

Project Name:	New Mexico BW-BX	Turn Around	
Project Number:	11573	Routine: ☐	
Project Location:	Rural Chaves County, New Mexico	Rush: ☒	
Sampler's Name:	Lance Crenshaw	Due Date: ASAP	
PO #:			
SAMPLE RECEIPT			
Temperature (°C):	0.1°C	Temp Blank: ☒ Yes ☒ No	Wet Ice: ☒ Yes ☒ No
Received Intact:	☒ Yes ☒ No	Thermometer ID:	204
Cooler Custody Seals:	☒ Yes ☒ No	Correction Factor:	-0.5
Sample Custody Seals:	☒ Yes ☒ No	Total Containers:	
ANALYSIS REQUEST			
Sample Identification	Matrix	Date Sampled	Time Sampled
FS22	Soil	5/12/2020	
FS23	Soil	5/12/2020	
FS24	Soil	5/12/2020	
FS25	Soil	5/12/2020	
FS26	Soil	5/12/2020	
FS27	Soil	5/12/2020	
FS28	Soil	5/12/2020	
FS29	Soil	5/12/2020	
FS30	Soil	5/12/2020	
FS31	Soil	5/12/2020	
Number of Containers/Preservative Code			
BTX (SW 846 8021B)			
TPH (SW 846 8015M Ext.)			
CI- (4500 CI)			
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 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
		2:38/5/13			5/14/20
					1105



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: W01555

Project Manager:	Lance Crenshaw	Bill to: (if different)	Teffanie Fawks
Company Name:	Elech 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@elechemv.com + Client
Work Order Comments			
Program: ☐ UST/PST ☐ PRF ☐ Brownfield ☐ RRd ☐ Superfund ☐			
State of Project:			
Reporting Level: ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐			
Deliverables: EDD ☐ ADAPT ☐ Other:			

Project Name:	New Mexico BW-BX	Turn Around	
Project Number:	11573	Routine:	☐
Project Location:	Rural Chaves County, New Mexico	Rush:	☒
Sampler's Name:	Lance Crenshaw	Due Date: ASAP	
PO #:			
SAMPLE RECEIPT			
Temperature (°C):	07.04	Temp Blank:	Yes ☒ No ☐
Received intact:	Yes ☒ No ☐	Thermometer ID:	29
Cooler Custody Seals:	Yes ☒ No ☐	Correction Factor:	-0.3
Sample Custody Seals:	Yes ☒ No ☐	Total Containers:	
Sample Identification	Matrix	Date Sampled	Time Sampled
FS32	Soil	5/12/2020	
FS33	Soil	5/12/2020	
FS34	Soil	5/12/2020	
FS35	Soil	5/12/2020	
FS36	Soil	5/12/2020	
ANALYSIS REQUEST			
Number of Containers/Preservative Code			
BTX (SW 846 8021B)			
TPH (SW 846 8015M Ext.)			
Cl- (4500 Cl)			
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 Meta(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
<u>[Signature]</u>	<u>[Signature]</u>	2/38/5/13	<u>[Signature]</u>	<u>[Signature]</u>	5/14/20
5			6		1105



41 MAF

TX-US
LBB
MAFA

4705 2523 6115

TRK# 0201

THU - 14 MAY HOLD
PRIORITY OVERNIGHT
HLD



MIDLAND TX 79711

3600 COUNTY ROAD 1276 SOUTH
FEDEX EXPRESS SHIP CENTER
FEDEX EXPRESS SHIP CENTER
XENCO LABORATORIES HOLD FOR PICK UP

TO
HOBBS, NM 88240
UNITED STATES US

MAIL SERVICES ETC, LLC
4008 N GRIMES
ORIGIN ID: H08A (S/B) 392-/650

SHIP DATE: 13MAY20
ACTWGT: 22.00 LB MAN
CAD: 0909328/CFFE3211
DIMS: 18x16x12 IN
BILL RECIPIENT

551C3/2925/104C

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 05.14.2020 11.05.00 AM

Work Order #: 661555

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.4
#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: 05.14.2020

Checklist reviewed by:



Jessica Kramer

Date: 05.14.2020



Certificate of Analysis Summary 663034

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Rural Chaves County, New Mexico

Date Received in Lab: Mon 06.01.2020 09:55
Report Date: 06.04.2020 15:53
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	663034-001	663034-002	663034-003	663034-004	663034-005	663034-006
	<i>Field Id:</i>	EW8	EW10B	WW2B	WW3B	WW4B	WW7B
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00
Chloride by EPA 300	<i>Extracted:</i>	06.01.2020 11:20	06.01.2020 11:20				
	<i>Analyzed:</i>	06.01.2020 18:56	06.01.2020 19:01				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		21.1 4.99	41.6 4.97				
TPH By SW8015 Mod	<i>Extracted:</i>	06.01.2020 16:00		06.01.2020 16:00	06.01.2020 16:00	06.01.2020 16:00	06.01.2020 16:00
	<i>Analyzed:</i>	*** ** *		*** ** *	*** ** *	*** ** *	*** ** *
	<i>Units/RL:</i>	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	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
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Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 663034

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Rural Chaves County, New Mexico

Date Received in Lab: Mon 06.01.2020 09:55
Report Date: 06.04.2020 15:53
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	663034-007	663034-008	663034-009	663034-010	663034-011	663034-012
	<i>Field Id:</i>	WW8B	WW9B	WW11B	WW12B	WW13	WW14
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00	05.28.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>				06.03.2020 14:30	06.03.2020 14:30	06.02.2020 08:00
	<i>Analyzed:</i>				06.04.2020 09:09	06.04.2020 09:29	06.02.2020 12:19
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	mg/kg RL
Benzene					0.00367 0.00201	<0.00199 0.00199	<0.00200 0.00200
Toluene					0.0391 0.00201	0.0117 0.00199	<0.00200 0.00200
Ethylbenzene					<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes					<0.00402 0.00402	<0.00398 0.00398	<0.00399 0.00399
o-Xylene					<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes					<0.00201 0.00201	<0.00199 0.00199	<0.00200 0.00200
Total BTEX					0.0428 0.00201	0.0117 0.00199	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>				06.01.2020 11:20	06.01.2020 11:20	06.01.2020 11:20
	<i>Analyzed:</i>				06.01.2020 19:06	06.01.2020 19:11	06.01.2020 19:16
	<i>Units/RL:</i>				mg/kg RL	mg/kg RL	mg/kg RL
Chloride					10.0 5.02	55.1 5.00	20.5 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	06.01.2020 16:00	06.01.2020 16:00	06.01.2020 16:00	06.01.2020 16:00	06.01.2020 16:00	06.01.2020 16:00
	<i>Analyzed:</i>	*** ** *	*** ** *	*** ** *	06.01.2020 16:14	06.01.2020 16:35	06.01.2020 17:18
	<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	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9

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Jessica Kramer
Project Manager



Certificate of Analysis Summary 663034

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573
Contact: PM
Project Location: Rural Chaves County, New Mexico

Date Received in Lab: Mon 06.01.2020 09:55
Report Date: 06.04.2020 15:53
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	663034-013	663034-014				
	Field Id:	WW15	WW18				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	05.28.2020 00:00	05.28.2020 00:00				
BTEX by EPA 8021B	Extracted:	06.03.2020 14:30	06.03.2020 14:30				
	Analyzed:	06.04.2020 09:50	06.04.2020 10:10				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		0.00306 0.00202	0.0110 0.00201				
Toluene		0.0419 0.00202	0.0368 0.00201				
Ethylbenzene		<0.00202 0.00202	<0.00201 0.00201				
m,p-Xylenes		<0.00404 0.00404	<0.00402 0.00402				
o-Xylene		<0.00202 0.00202	<0.00201 0.00201				
Total Xylenes		<0.00202 0.00202	<0.00201 0.00201				
Total BTEX		0.0450 0.00202	0.0478 0.00201				
Chloride by EPA 300	Extracted:	06.01.2020 11:20	06.01.2020 11:20				
	Analyzed:	06.01.2020 19:21	06.01.2020 19:26				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		9.60 4.95	20.5 5.03				
TPH By SW8015 Mod	Extracted:	06.01.2020 16:00	06.01.2020 16:00				
	Analyzed:	06.01.2020 17:39	06.01.2020 18:01				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0				
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0				
Total TPH		<50.0 50.0	<50.0 50.0				

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

Jessica Kramer
Project Manager



Analytical Report 663034

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

New Mexico BW-BX

11573

06.04.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), 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)



06.04.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **663034**

New Mexico BW-BX

Project Address: Rural Chaves County, New Mexico

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 XENCO Report Number(s) 663034. 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. 663034 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'. The signature is written in a cursive, flowing style.

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 663034****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
EW8	S	05.28.2020 00:00		663034-001
EW10B	S	05.28.2020 00:00		663034-002
WW2B	S	05.28.2020 00:00		663034-003
WW3B	S	05.28.2020 00:00		663034-004
WW4B	S	05.28.2020 00:00		663034-005
WW7B	S	05.28.2020 00:00		663034-006
WW8B	S	05.28.2020 00:00		663034-007
WW9B	S	05.28.2020 00:00		663034-008
WW11B	S	05.28.2020 00:00		663034-009
WW12B	S	05.28.2020 00:00		663034-010
WW13	S	05.28.2020 00:00		663034-011
WW14	S	05.28.2020 00:00		663034-012
WW15	S	05.28.2020 00:00		663034-013
WW18	S	05.28.2020 00:00		663034-014



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 663034

Report Date: 06.04.2020
Date Received: 06.01.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW8** Matrix: Soil Date Received: 06.01.2020 09:55
 Lab Sample Id: 663034-001 Date Collected: 05.28.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 06.01.2020 11:20 Basis: Wet Weight
 Seq Number: 3127625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	21.1	4.99	mg/kg	06.01.2020 18:56		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.01.2020 16:00 Basis: Wet Weight
 Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 12:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 12:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 12:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 12:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	06.01.2020 12:40	
o-Terphenyl	84-15-1	108	%	70-130	06.01.2020 12:40	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **EW8**
Lab Sample Id: 663034-001 RE

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.02.2020 08:00

Basis: Wet Weight

Seq Number: 3127693

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.04.2020 08:48	U	1
Toluene	108-88-3	0.00882	0.00200	mg/kg	06.04.2020 08:48		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.04.2020 08:48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.04.2020 08:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.04.2020 08:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.04.2020 08:48	U	1
Total BTEX		0.00882	0.00200	mg/kg	06.04.2020 08:48		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	06.04.2020 08:48		
1,4-Difluorobenzene	540-36-3	112	%	70-130	06.04.2020 08:48		



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **EW10B**
Lab Sample Id: 663034-002

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: CHE

Date Prep: 06.01.2020 11:20

Basis: Wet Weight

Seq Number: 3127625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.6	4.97	mg/kg	06.01.2020 19:01		1



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW2B**
Lab Sample Id: 663034-003

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.01.2020 16:00

Basis: Wet Weight

Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 13:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 13:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 13:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 13:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-130	06.01.2020 13:44	
o-Terphenyl	84-15-1	110	%	70-130	06.01.2020 13:44	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW3B**
Lab Sample Id: 663034-004

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.01.2020 16:00

Basis: Wet Weight

Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 14:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 14:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 14:06	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 14:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	06.01.2020 14:06	
o-Terphenyl	84-15-1	110	%	70-130	06.01.2020 14:06	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW4B**
Lab Sample Id: 663034-005

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.01.2020 16:00

Basis: Wet Weight

Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 14:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 14:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 14:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 14:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	06.01.2020 14:27	
o-Terphenyl	84-15-1	108	%	70-130	06.01.2020 14:27	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX
New Mexico BW-BX

Sample Id: **WW7B**
Lab Sample Id: 663034-006

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.01.2020 16:00

Basis: Wet Weight

Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.01.2020 14:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.01.2020 14:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.01.2020 14:49	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.01.2020 14:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	06.01.2020 14:49	
o-Terphenyl	84-15-1	106	%	70-130	06.01.2020 14:49	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW8B**
Lab Sample Id: 663034-007

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.01.2020 16:00

Basis: Wet Weight

Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 15:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 15:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 15:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 15:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	06.01.2020 15:10	
o-Terphenyl	84-15-1	104	%	70-130	06.01.2020 15:10	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW9B**
Lab Sample Id: 663034-008

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.01.2020 16:00

Basis: Wet Weight

Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.01.2020 15:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.01.2020 15:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.01.2020 15:31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.01.2020 15:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	06.01.2020 15:31	
o-Terphenyl	84-15-1	106	%	70-130	06.01.2020 15:31	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW11B**
Lab Sample Id: 663034-009

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.01.2020 16:00

Basis: Wet Weight

Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.01.2020 15:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.01.2020 15:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.01.2020 15:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.01.2020 15:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-130	06.01.2020 15:53	
o-Terphenyl	84-15-1	114	%	70-130	06.01.2020 15:53	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW12B** Matrix: Soil Date Received: 06.01.2020 09:55
 Lab Sample Id: 663034-010 Date Collected: 05.28.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 06.01.2020 11:20 Basis: Wet Weight
 Seq Number: 3127625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.0	5.02	mg/kg	06.01.2020 19:06		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.01.2020 16:00 Basis: Wet Weight
 Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 16:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 16:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 16:14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 16:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-130	06.01.2020 16:14	
o-Terphenyl	84-15-1	111	%	70-130	06.01.2020 16:14	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW12B**
Lab Sample Id: 663034-010

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.03.2020 14:30

Basis: Wet Weight

Seq Number: 3127974

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00367	0.00201	mg/kg	06.04.2020 09:09		1
Toluene	108-88-3	0.0391	0.00201	mg/kg	06.04.2020 09:09		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.04.2020 09:09	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.04.2020 09:09	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.04.2020 09:09	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.04.2020 09:09	U	1
Total BTEX		0.0428	0.00201	mg/kg	06.04.2020 09:09		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	120	%	70-130	06.04.2020 09:09		
1,4-Difluorobenzene	540-36-3	109	%	70-130	06.04.2020 09:09		



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW13** Matrix: Soil Date Received: 06.01.2020 09:55
 Lab Sample Id: 663034-011 Date Collected: 05.28.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 06.01.2020 11:20 Basis: Wet Weight
 Seq Number: 3127625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	55.1	5.00	mg/kg	06.01.2020 19:11		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.01.2020 16:00 Basis: Wet Weight
 Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 16:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 16:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 16:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 16:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	06.01.2020 16:35	
o-Terphenyl	84-15-1	106	%	70-130	06.01.2020 16:35	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW13**
Lab Sample Id: 663034-011

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.03.2020 14:30

Basis: Wet Weight

Seq Number: 3127974

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	06.04.2020 09:29	U	1
Toluene	108-88-3	0.0117	0.00199	mg/kg	06.04.2020 09:29		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	06.04.2020 09:29	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	06.04.2020 09:29	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	06.04.2020 09:29	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	06.04.2020 09:29	U	1
Total BTEX		0.0117	0.00199	mg/kg	06.04.2020 09:29		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	06.04.2020 09:29		
4-Bromofluorobenzene	460-00-4	117	%	70-130	06.04.2020 09:29		



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW14** Matrix: Soil Date Received: 06.01.2020 09:55
 Lab Sample Id: 663034-012 Date Collected: 05.28.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 06.01.2020 11:20 Basis: Wet Weight
 Seq Number: 3127625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.5	5.00	mg/kg	06.01.2020 19:16		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.01.2020 16:00 Basis: Wet Weight
 Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.01.2020 17:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.01.2020 17:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.01.2020 17:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.01.2020 17:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-130	06.01.2020 17:18	
o-Terphenyl	84-15-1	111	%	70-130	06.01.2020 17:18	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW14**
Lab Sample Id: 663034-012

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.02.2020 08:00

Basis: Wet Weight

Seq Number: 3127693

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	06.02.2020 12:19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	06.02.2020 12:19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	06.02.2020 12:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	06.02.2020 12:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	06.02.2020 12:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	06.02.2020 12:19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	06.02.2020 12:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	06.02.2020 12:19	
4-Bromofluorobenzene	460-00-4	124	%	70-130	06.02.2020 12:19	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW15** Matrix: Soil Date Received: 06.01.2020 09:55
 Lab Sample Id: 663034-013 Date Collected: 05.28.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 06.01.2020 11:20 Basis: Wet Weight
 Seq Number: 3127625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	9.60	4.95	mg/kg	06.01.2020 19:21		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.01.2020 16:00 Basis: Wet Weight
 Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 17:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 17:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 17:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 17:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	06.01.2020 17:39	
o-Terphenyl	84-15-1	104	%	70-130	06.01.2020 17:39	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW15**
Lab Sample Id: 663034-013

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.03.2020 14:30

Basis: Wet Weight

Seq Number: 3127974

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00306	0.00202	mg/kg	06.04.2020 09:50		1
Toluene	108-88-3	0.0419	0.00202	mg/kg	06.04.2020 09:50		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	06.04.2020 09:50	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	06.04.2020 09:50	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	06.04.2020 09:50	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	06.04.2020 09:50	U	1
Total BTEX		0.0450	0.00202	mg/kg	06.04.2020 09:50		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	06.04.2020 09:50		
1,4-Difluorobenzene	540-36-3	111	%	70-130	06.04.2020 09:50		



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW18** Matrix: Soil Date Received: 06.01.2020 09:55
 Lab Sample Id: 663034-014 Date Collected: 05.28.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: CHE Date Prep: 06.01.2020 11:20 Basis: Wet Weight
 Seq Number: 3127625

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.5	5.03	mg/kg	06.01.2020 19:26		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 06.01.2020 16:00 Basis: Wet Weight
 Seq Number: 3127632

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.01.2020 18:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.01.2020 18:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.01.2020 18:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.01.2020 18:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	06.01.2020 18:01	
o-Terphenyl	84-15-1	100	%	70-130	06.01.2020 18:01	



Certificate of Analytical Results 663034

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **WW18**
Lab Sample Id: 663034-014

Matrix: Soil
Date Collected: 05.28.2020 00:00

Date Received: 06.01.2020 09:55

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 06.03.2020 14:30

Basis: Wet Weight

Seq Number: 3127974

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0110	0.00201	mg/kg	06.04.2020 10:10		1
Toluene	108-88-3	0.0368	0.00201	mg/kg	06.04.2020 10:10		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	06.04.2020 10:10	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	06.04.2020 10:10	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	06.04.2020 10:10	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	06.04.2020 10:10	U	1
Total BTEX		0.0478	0.00201	mg/kg	06.04.2020 10:10		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	06.04.2020 10:10		
1,4-Difluorobenzene	540-36-3	110	%	70-130	06.04.2020 10:10		



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
New Mexico BW-BX

Analytical Method: Chloride by EPA 300

Seq Number: 3127625

MB Sample Id: 7704462-1-BLK

Matrix: Solid

LCS Sample Id: 7704462-1-BKS

Prep Method: E300P

Date Prep: 06.01.2020

LCSD Sample Id: 7704462-1-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	253	101	248	99	90-110	2	20	mg/kg	06.01.2020 16:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3127625

Parent Sample Id: 662904-001

Matrix: Soil

MS Sample Id: 662904-001 S

Prep Method: E300P

Date Prep: 06.01.2020

MSD Sample Id: 662904-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.8	249	273	100	268	98	90-110	2	20	mg/kg	06.01.2020 18:25	

Analytical Method: Chloride by EPA 300

Seq Number: 3127625

Parent Sample Id: 662991-041

Matrix: Soil

MS Sample Id: 662991-041 S

Prep Method: E300P

Date Prep: 06.01.2020

MSD Sample Id: 662991-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	99.4	251	368	107	370	108	90-110	1	20	mg/kg	06.01.2020 17:15	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3127632

MB Sample Id: 7704560-1-BLK

Matrix: Solid

LCS Sample Id: 7704560-1-BKS

Prep Method: SW8015P

Date Prep: 06.01.2020

LCSD Sample Id: 7704560-1-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	989	99	986	99	70-130	0	20	mg/kg	06.01.2020 11:58	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1060	106	70-130	2	20	mg/kg	06.01.2020 11:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		114		116		70-130	%	06.01.2020 11:58
o-Terphenyl	119		121		121		70-130	%	06.01.2020 11:58

Analytical Method: TPH By SW8015 Mod

Seq Number: 3127632

Matrix: Solid

MB Sample Id: 7704560-1-BLK

Prep Method: SW8015P

Date Prep: 06.01.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.01.2020 11:37	

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 New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3127632

Parent Sample Id: 663034-001

Matrix: Soil

MS Sample Id: 663034-001 S

Prep Method: SW8015P

Date Prep: 06.01.2020

MSD Sample Id: 663034-001 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	980	98	992	99	70-130	1	20	mg/kg	06.01.2020 13:02	
Diesel Range Organics (DRO)	<49.9	998	1050	105	1060	106	70-130	1	20	mg/kg	06.01.2020 13:02	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		106		70-130	%	06.01.2020 13:02
o-Terphenyl	109		105		70-130	%	06.01.2020 13:02

Analytical Method: BTEX by EPA 8021B

Seq Number: 3127693

MB Sample Id: 7704596-1-BLK

Matrix: Solid

LCS Sample Id: 7704596-1-BKS

Prep Method: SW5035A

Date Prep: 06.02.2020

LCSD Sample Id: 7704596-1-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	0.0943	94	0.102	102	70-130	8	35	mg/kg	06.02.2020 09:16	
Toluene	<0.00200	0.100	0.104	104	0.110	110	70-130	6	35	mg/kg	06.02.2020 09:16	
Ethylbenzene	<0.00200	0.100	0.0997	100	0.105	105	70-130	5	35	mg/kg	06.02.2020 09:16	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.213	107	70-130	4	35	mg/kg	06.02.2020 09:16	
o-Xylene	<0.00200	0.100	0.0977	98	0.102	102	70-130	4	35	mg/kg	06.02.2020 09:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		101		104		70-130	%	06.02.2020 09:16
4-Bromofluorobenzene	103		106		109		70-130	%	06.02.2020 09:16

Analytical Method: BTEX by EPA 8021B

Seq Number: 3127974

MB Sample Id: 7704763-1-BLK

Matrix: Solid

LCS Sample Id: 7704763-1-BKS

Prep Method: SW5035A

Date Prep: 06.03.2020

LCSD Sample Id: 7704763-1-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	0.0882	88	0.0887	89	70-130	1	35	mg/kg	06.04.2020 01:14	
Toluene	<0.00200	0.100	0.0885	89	0.0912	91	70-130	3	35	mg/kg	06.04.2020 01:14	
Ethylbenzene	<0.00200	0.100	0.0824	82	0.0861	86	70-130	4	35	mg/kg	06.04.2020 01:14	
m,p-Xylenes	<0.00400	0.200	0.163	82	0.170	85	70-130	4	35	mg/kg	06.04.2020 01:14	
o-Xylene	<0.00200	0.100	0.0811	81	0.0848	85	70-130	4	35	mg/kg	06.04.2020 01:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		105		104		70-130	%	06.04.2020 01:14
4-Bromofluorobenzene	106		97		102		70-130	%	06.04.2020 01:14

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
New Mexico BW-BX

Analytical Method: BTEX by EPA 8021B

Seq Number: 3127693

Parent Sample Id: 663034-001

Matrix: Soil

MS Sample Id: 663034-001 S

Prep Method: SW5035A

Date Prep: 06.02.2020

MSD Sample Id: 663034-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0997	101	0.0914	92	70-130	9	35	mg/kg	06.02.2020 09:57	
Toluene	0.00235	0.0992	0.105	103	0.0968	95	70-130	8	35	mg/kg	06.02.2020 09:57	
Ethylbenzene	<0.00198	0.0992	0.0940	95	0.0845	85	70-130	11	35	mg/kg	06.02.2020 09:57	
m,p-Xylenes	<0.00397	0.198	0.190	96	0.172	87	70-130	10	35	mg/kg	06.02.2020 09:57	
o-Xylene	<0.00198	0.0992	0.0916	92	0.0834	84	70-130	9	35	mg/kg	06.02.2020 09:57	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		102		70-130	%	06.02.2020 09:57
4-Bromofluorobenzene	113		112		70-130	%	06.02.2020 09:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3127974

Parent Sample Id: 662904-002

Matrix: Soil

MS Sample Id: 662904-002 S

Prep Method: SW5035A

Date Prep: 06.03.2020

MSD Sample Id: 662904-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0742	74	0.0696	70	70-130	6	35	mg/kg	06.04.2020 01:55	
Toluene	<0.00199	0.0996	0.0793	80	0.0746	75	70-130	6	35	mg/kg	06.04.2020 01:55	
Ethylbenzene	<0.00199	0.0996	0.0787	79	0.0778	78	70-130	1	35	mg/kg	06.04.2020 01:55	
m,p-Xylenes	<0.00398	0.199	0.156	78	0.152	77	70-130	3	35	mg/kg	06.04.2020 01:55	
o-Xylene	<0.00199	0.0996	0.0785	79	0.0769	78	70-130	2	35	mg/kg	06.04.2020 01:55	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		107		70-130	%	06.04.2020 01:55
4-Bromofluorobenzene	110		106		70-130	%	06.04.2020 01:55

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:

10103034

www.xenco.com

Page 1 of 2

Project Manager:	Lance Crenshaw	Bill to: (if different)	Terranie 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:	New Mexico BW-BX	Turn Around	☐
Project Number:	11573	Route:	☐
Project Location:	Rural Chaves County, New Mexico	Rush:	☒
Sampler's Name:	Lance Crenshaw	Due Date:	ASAP
PO #:			

SAMPLE RECEIPT	
Temperature (°C):	0.8/0.5
Received intact:	Yes ☒ No ☐
Cooler Custody Seals:	Yes ☒ No ☐
Sample Custody Seals:	Yes ☒ No ☐
Correction Factor:	-0.75
Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	ANALYSIS REQUEST																Preservative Codes	Sample Comments
EW8	Soil	5/28/2020			1/NO X	X																	
EW10B	Soil	5/28/2020			1/NO		X																
WW2B	Soil	5/28/2020			1/NO			X															
WW3B	Soil	5/28/2020			1/NO				X														
WW4B	Soil	5/28/2020			1/NO					X													
WW7B	Soil	5/28/2020			1/NO						X												
WW8B	Soil	5/28/2020			1/NO							X											
WW9B	Soil	5/28/2020			1/NO								X										
WW11B	Soil	5/28/2020			1/NO									X									
WW12B	Soil	5/28/2020			1/NO										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			

Note: 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 sample 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



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 (675) 392-7550, Carlsbad, NM (675) 968-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6707
Atlanta, GA (770) 449-8800

Work Order No: 263054

Project Manager:	Lance Crenshaw	Bill to: (if different)	Tefanie Fawls
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: UST/PST ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund ☐

State of Project:

Reporting Level ☐ Level ☐ PST/UG ☐ TRF ☐ Level ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Name:	New Mexico BW-BX		Turn Around	
Project Number:	11573		Routine: ☐	
Project Location:	Rural Chaves County, New Mexico		Rush: ☒	
Sampler's Name:	Lance Crenshaw		Due Date: ASAP	
PO #:				
SAMPLE RECEIPT				
Temperature (°C):	Temp Blank:	Yes	No	Yes
Received Inact:	Yes	No	Thermometer ID	
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:
Sample Custody Seals:	Yes	No	N/A	Total Containers:

ANALYSIS REQUEST										Preservative Codes	
										HNO ₃ : HN	
										H ₂ SO ₄ : H2	
										HCL: HL	
										None: NO	
										NaOH: Na	
										MeOH: Me	
										Zn Acetate+ NaOH: Zn	

TAT starts the day received by the

[illegible]

Total 200.7 / 6010 200.8 / 6020;
Circle Method(s) and Metal(s) to be

8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Aq	SiO2	Na	Sr	Ti	Cn	Il	V	Zr
-------	-------	----------	----	----	----	----	----	---	----	----	----	----	----	----	----	----	----	----	----	---	----	----	------	----	----	----	----	----	---	----

1631 / 245.1 / 7470 / 7471 · HC

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 services. 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>[Signature]</i>	<i>[Signature]</i>	5/29/02	2 <i>[Signature]</i>	<i>[Signature]</i>	6/1/02
3 <i>[Signature]</i>			4		9:55
5			6		



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 06.01.2020 09.55.00 AM

Work Order #: 663034

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.5	
#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: 06.01.2020

Checklist reviewed by:



Jessica Kramer

Date: 06.02.2020



Certificate of Analysis Summary 663413

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: New Mexico BW-BX

Project Id: 11573

Contact: PM

Project Location: Rural Chaves County, New Mexico

Date Received in Lab: Thu 06.04.2020 11:03

Report Date: 06.05.2020 16:03

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	663413-001	663413-002				
	Field Id:	FS18-4B	FS18-5C				
	Depth:	4.5- ft	5- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	06.03.2020 00:00	06.03.2020 00:00				
TPH By SW8015 Mod	Extracted:	06.04.2020 16:00	06.04.2020 16:00				
	Analyzed:	06.04.2020 19:05	06.04.2020 19:26				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<49.9	49.9		
Diesel Range Organics (DRO)		<50.0	50.0	<49.9	49.9		
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9		
Total TPH		<50.0	50.0	<49.9	49.9		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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

Jessica Kramer
Project Manager



Analytical Report 663413

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

New Mexico BW-BX

11573

06.05.2020

Collected By: Client



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

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-32), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-23), 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)



06.05.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **663413**

New Mexico BW-BX

Project Address: Rural Chaves County, New Mexico

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 XENCO Report Number(s) 663413. 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. 663413 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'. The signature is written in a cursive, flowing style.

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 663413****Etech Environmental & Safety Solution, Inc, Midland, TX**

New Mexico BW-BX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS18-4B	S	06.03.2020 00:00	4.5 ft	663413-001
FS18-5C	S	06.03.2020 00:00	5 ft	663413-002



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: New Mexico BW-BX

Project ID: 11573
Work Order Number(s): 663413

Report Date: 06.05.2020
Date Received: 06.04.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 663413

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-4B**

Matrix: Soil

Date Received: 06.04.2020 11:03

Lab Sample Id: 663413-001

Date Collected: 06.03.2020 00:00

Sample Depth: 4.5 ft

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 06.04.2020 16:00

Basis: Wet Weight

Seq Number: 3128011

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	06.04.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	06.04.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	06.04.2020 19:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	06.04.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	06.04.2020 19:05	
o-Terphenyl	84-15-1	127	%	70-130	06.04.2020 19:05	



Certificate of Analytical Results 663413

Etech Environmental & Safety Solution, Inc, Midland, TX New Mexico BW-BX

Sample Id: **FS18-5C**
Lab Sample Id: 663413-002

Matrix: Soil
Date Collected: 06.03.2020 00:00

Date Received: 06.04.2020 11:03
Sample Depth: 5 ft

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3128011

Prep Method: SW8015P

% Moisture:

Date Prep: 06.04.2020 16:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	06.04.2020 19:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	06.04.2020 19:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	06.04.2020 19:26	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	06.04.2020 19:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-130	06.04.2020 19:26	
o-Terphenyl	84-15-1	110	%	70-130	06.04.2020 19:26	



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
New Mexico BW-BX

Analytical Method: TPH By SW8015 Mod

Seq Number: 3128011

MB Sample Id: 7704701-1-BLK

Matrix: Solid

LCS Sample Id: 7704701-1-BKS

Prep Method: SW8015P

Date Prep: 06.03.2020

LCSD Sample Id: 7704701-1-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	863	86	810	81	70-130	6	20	mg/kg	06.04.2020 10:26	
Diesel Range Organics (DRO)	<50.0	1000	889	89	840	84	70-130	6	20	mg/kg	06.04.2020 10:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		104		99		70-130	%	06.04.2020 10:26
o-Terphenyl	110		109		102		70-130	%	06.04.2020 10:26

Analytical Method: TPH By SW8015 Mod

Seq Number: 3128011

Matrix: Solid

MB Sample Id: 7704701-1-BLK

Prep Method: SW8015P

Date Prep: 06.03.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	06.04.2020 10:04	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3128011

Matrix: Soil

Parent Sample Id: 663026-001

MS Sample Id: 663026-001 S

Prep Method: SW8015P

Date Prep: 06.03.2020

MSD Sample Id: 663026-001 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	948	95	909	91	70-130	4	20	mg/kg	06.05.2020 07:46	
Diesel Range Organics (DRO)	<49.9	998	899	90	858	86	70-130	5	20	mg/kg	06.05.2020 07:46	

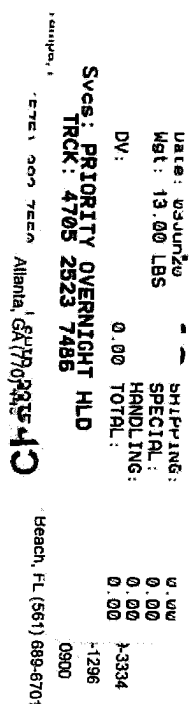
Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	113		106		70-130	%	06.05.2020 07:46
o-Terphenyl	105		98		70-130	%	06.05.2020 07:46

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



063413

Work Order Comments

Program: UST/PST ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund ☐

State of Project:

Reporting Level ☐ Level ☐ PST/UD ☐ TRF ☐ Level ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

Project Location	Rural Chaves County, New Mexico	Rust:	☒									HNO ₃ : HN
Sampler's Name:	Lance Crenshaw	Due Date: ASAP										H ₂ SO ₄ : H ₂
P.O.#:												H ₂ O ₂ : H ₂ O

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	0-10.5						
Received Intact:	Yes No	Thermometer ID					
Cooler Custody Seals:	Yes No N/A	Correction Factor:					
Sample Custody Seals:	Yes No N/A	Total Containers:					

of Containers/Pres

(846 8021B)

846 8015M Ext.)

ci)

None: NO
NaOH: Na
MeOH: Me
Zn Acetate+ NaOH: Zn

[illegible]

Relinquished by: (Signature)	Received by: (Signature)
------------------------------	--------------------------

	Initiated by: (Signature)	Date/Time	Reinquished by: (Signature)	Received by: (Signature)	Date/Time
1	<i>[Signature]</i>				
2	<i>[Signature]</i>	6-3-20 3:55	<i>[Signature]</i>	<i>[Signature]</i>	6/7/20
3					9/05
4					
5					
6					



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 06.04.2020 11.03.00 AM

Work Order #: 663413

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R9

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: 06.04.2020

Checklist reviewed by:



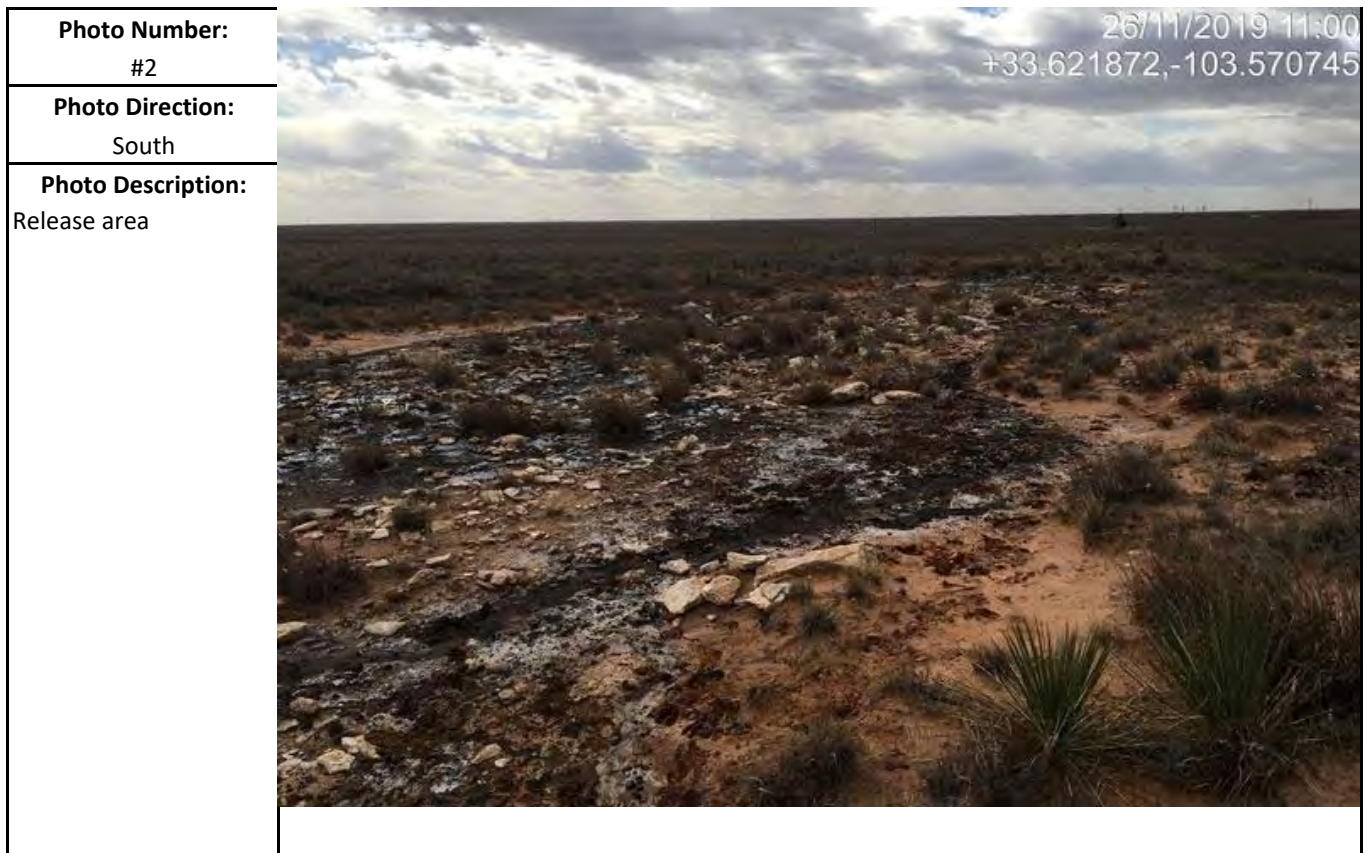
Jessica Kramer

Date: 06.04.2020

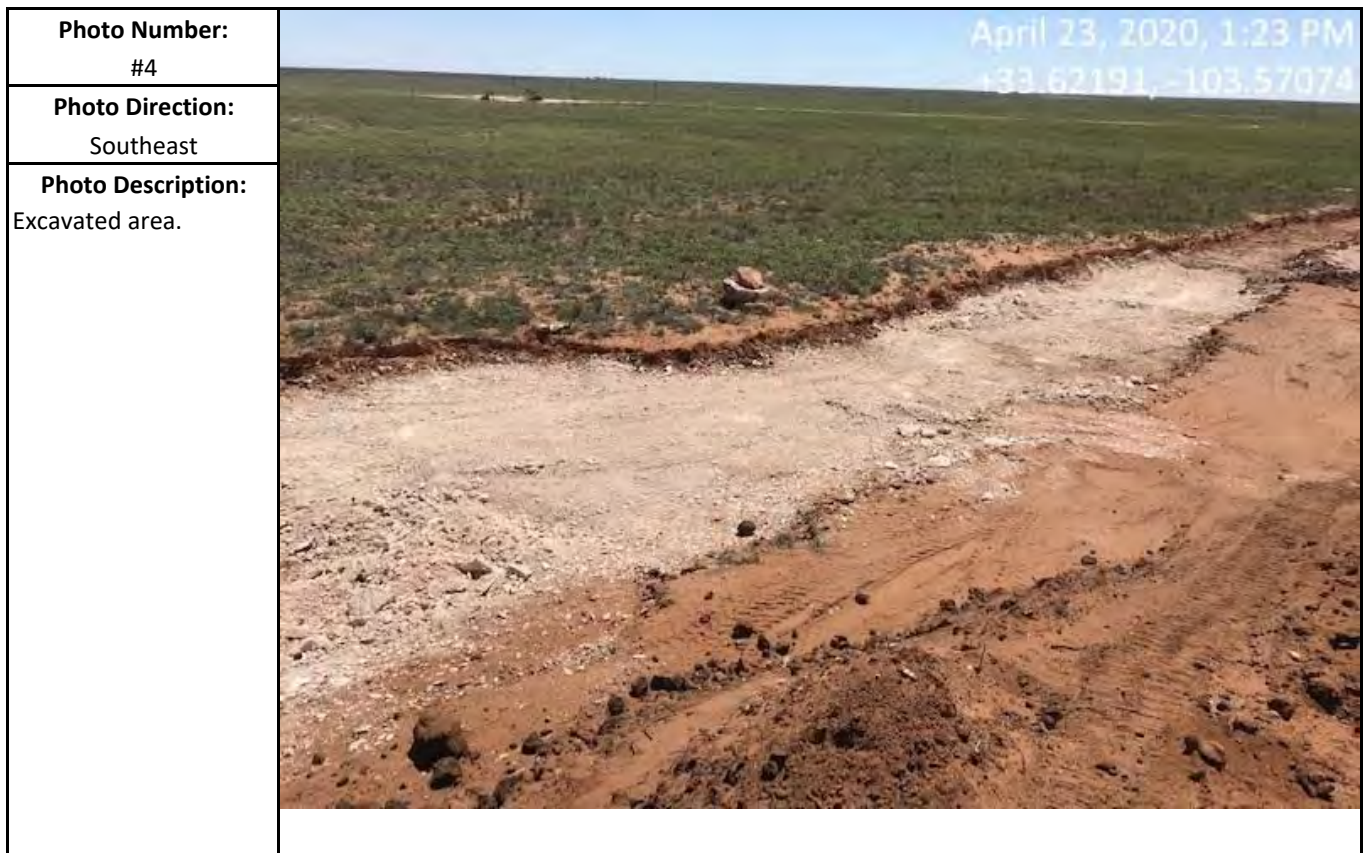
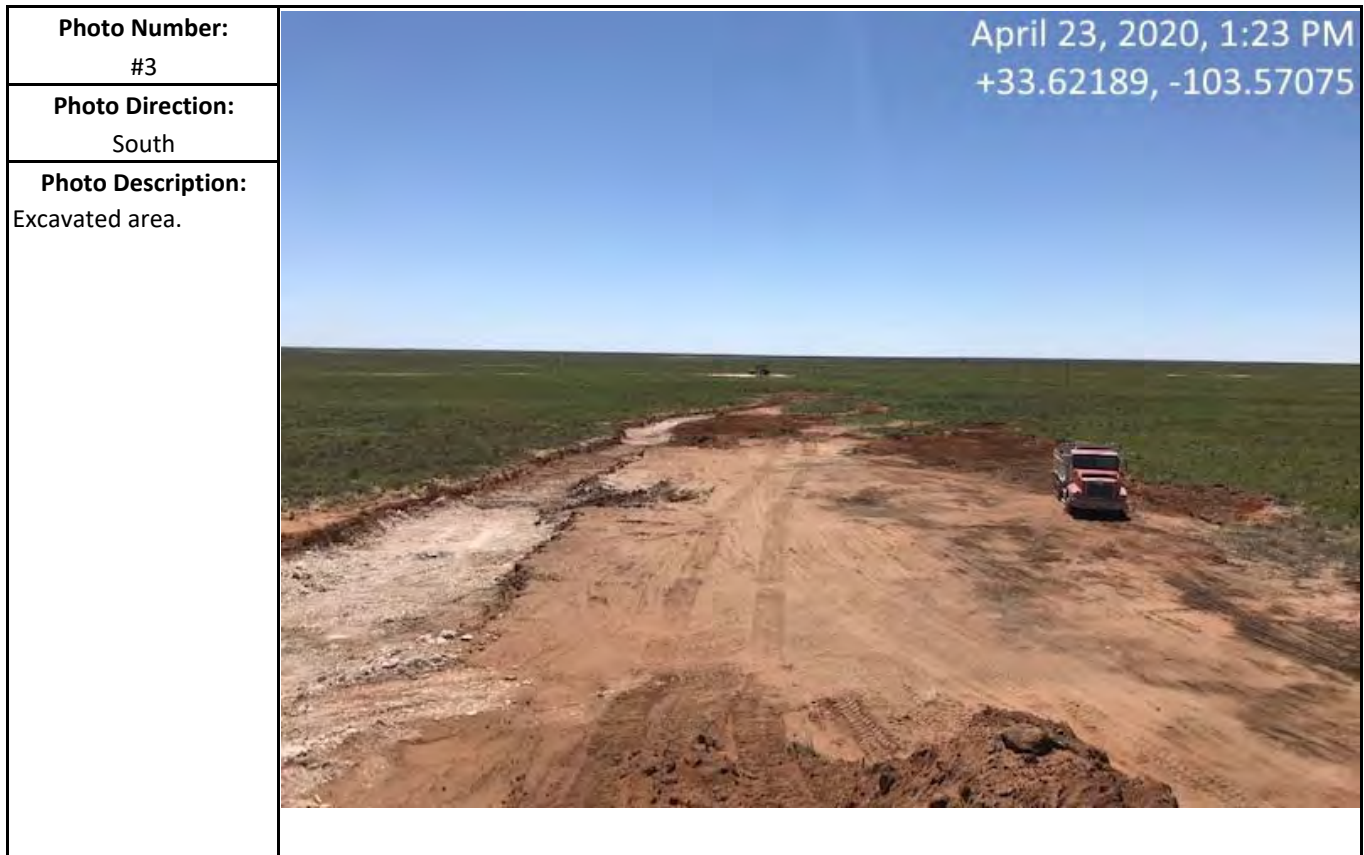
Appendix D

Photographic Log

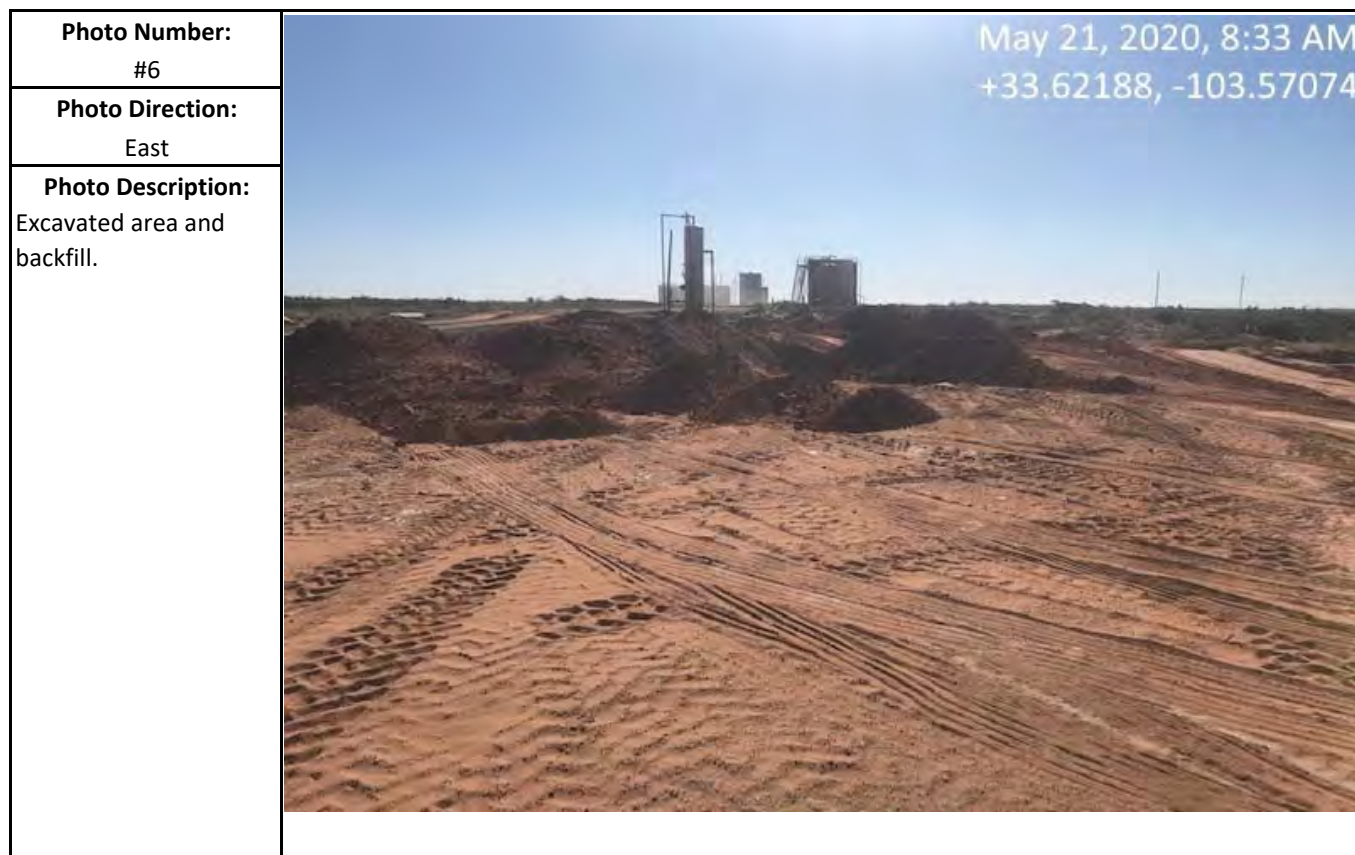
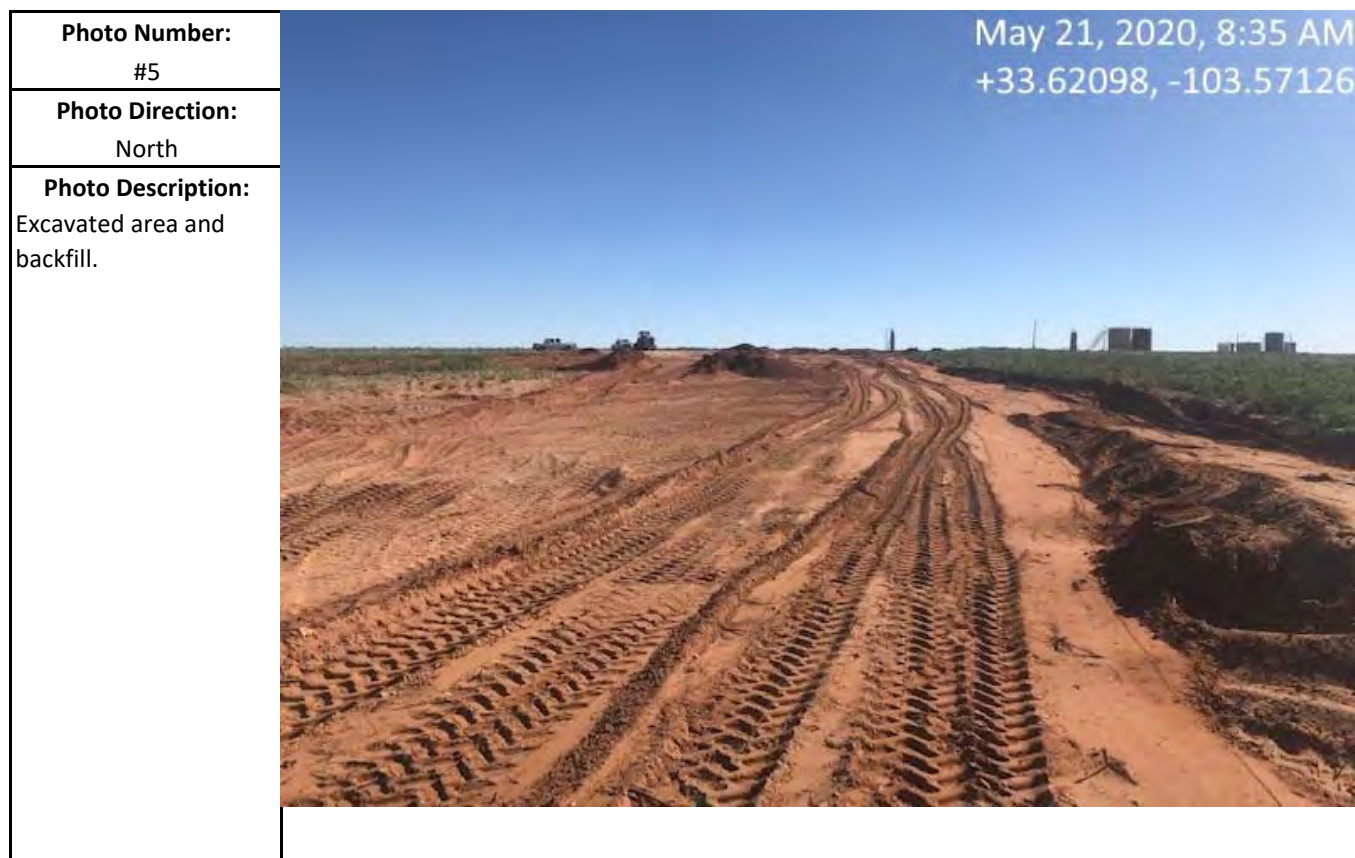
Photographic Log



Photographic Log



Photographic Log



Photographic Log

Photo Number: #7	 May 21, 2020, 8:35 AM +33.62098, -103.57126
Photo Direction: North	
Photo Description: Excavated area and backfill.	

Photo Number: #8	 25/06/2020 11:46 +33.621891, -103.570754
Photo Direction: East	
Photo Description: Excavated area and backfill.	