

Incident ID	nAB1908057694
District RP	2RP-5318
Facility ID	
Application ID	

Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Carmen E Pitt Title: Senior HSE Specialist

Signature: Carmen E Pitt Date: 5/15/2020

email: cpitt@grizzlyenergyllc.com Telephone: 432-248-8145

OCD Only

Received by: Cristina Eads Date: 05/15/2020

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: Cristina Eads Date: 07/22/2020

Printed Name: Cristina Eads Title: Environmental Specialist

Remediation Summary and Soil Closure Request

Grizzly Energy, LLC Aspen 32 State Com #001

Eddy County, New Mexico
Unit Letter J, Section 32, Township 17 South, Range 28 East
Latitude 32.78792 North, Longitude 104.19439 West
NMOCD Reference No. 2RP-3196 & 2RP-5318

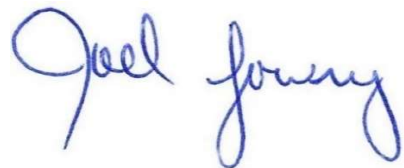
Prepared By:

Etech Environmental & Safety Solutions, Inc.

3100 Plains Highway
Lovington, New Mexico 88260



Lance Crenshaw



Joel W. Lowry



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1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Grizzly Energy, LLC, has prepared this Remediation Summary and Soil Closure Request for the Release Site known as the Aspen 32 State Com #001. Details of the release are summarized below:

Location of Release Source

Latitude: 32.78792 Longitude: -104.19439

Provided GPS are in WGS84 format.

Site Name: <u>Aspen 32 State Com #001</u>	Site Type: <u>Tank Battery</u>
Date Release Discovered: <u>3/13/2019</u>	API # (if applicable):

Unit Letter	Section	Township	Range	County
J	32	17S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name COG Operating, LLC)

Nature and Volume of Release

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) <u>24</u>	Volume Recovered (bbls) <u>21</u>
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/L?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released	Volume/Weight Recovered
Cause of Release: The release was attributed to a loss of power at the facility resulting in the pumps stopping and the alarm to fail.		

Initial Response

<input checked="" type="checkbox"/> The source of the release has been stopped.
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.
<input checked="" type="checkbox"/> Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
<input checked="" type="checkbox"/> 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 Ft.</u>	
Did the release impact groundwater or surface water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production or storage site?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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 Ft.	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 BACKGROUND INFORMATION

On July 28, 2015, a release was discovered on at the Aspen 32 State Com Tank Battery. The release was attributed to a discharge line developing a pin hole leak. The initial form C-141 indicated that approximately 24 bbls of produced water was released. During initial response activities, approximately 21 bbls of produced water were recovered. Between July 18 and 21, 2017, EPI conducted an environmental investigation at the Site. During the environmental investigation, soil samples were collected in an effort to determine the vertical and horizontal extent of soil impacts. Upon conducting the environmental investigation, a *Site Characterization and Workplan* was prepared detailing remediation activities designed to advance the Site toward and NMOCD-approved closure. The *Workplan* was subsequently approved.

On March 13, 2019, a second reportable release occurred at the Aspen 32 State Com Tank Battery. The release was attributed to a loss of electrical power to the pumps and alarms. The initial form C-141 indicated that approximately 60 bbls of crude oil and 10 bbls of produced water were released. During initial response activities, approximately 55 bbls crude oil and 10 bbls of produced water were recovered. On March 21, 2019, LEA conducted an initial release assessment at the Site. During the initial release assessment, soil samples were collected in an effort to determine the vertical and horizontal extent of soil impacts. Upon conducting the initial release assessment, a *Site Assessment Report and Proposed Remediation Plan* was prepared detailing remediation activities designed to advance the Site toward and NMOCD-approved closure. The *Proposed Remediation Plan* was subsequently approved.

The releases affected the same area on the north side of the tank battery and were remediated simultaneously.

5.0 REMEDIATION ACTIVITIES SUMMARY

On April 13, 2020, remediation activities commenced at the Site. In accordance with the NMOCD, impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard 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 suggested BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or NMOCD Reclamation Standard. Excavated material was temporarily stockpiled on-site, then transported to and NMOCD-approved surface waste facility for disposal.

Between April 14 and 28, 2020, Etech collected thirty-two (32) excavation confirmation soil samples (FL1 @ 4', FL 2 @ 5', FL 3 @ 4' - FL 5 @ 4', FL 6 @ 1' - FL 8 @ 1', FL 9 @ 3' 528, FL 10 - FL 15, NW1b, NW2b NW 3 @ 3' 432, NW 4, NW 5, EW 1 @ 1', EW 2 @ 2', SW1, SW1b, SW 1 1408, SW 2 2308, SW 3 2324, SW4 @ 6" - SW 6 @ 6", WW1 220 and WW2 220) from the floor and sidewalls of the excavated area. The collected soil sample was submitted to a certified commercial laboratory for analysis of BTEX, TPH and/or chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard in each of the submitted soil samples with the exception of soil samples NW3 @ 3' 432 and FL9 @ 3' 528. Impacted soil in the areas characterized by soil samples NW3 @ 3' 432 and FL9 @ 3' 528 was excavated.

On May 5, 2020, Etech collected two (2) excavation confirmation soil samples (NW3-B and FL9B @ 5' 528) from the floor and sidewall of the excavated area. The collected soil sample was submitted to a certified commercial laboratory for analysis of TPH concentrations, which were determined to be below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard.

A "Site & Sample Location Map" is provided as Figure 3. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C. Field data and soil profile logs, if applicable, are provided as Appendix B.

The final dimensions of the excavated area were 125 Ft. in length, 30 to 45 Ft in width and ranged from 6 inches to 4 Ft. in depth. During the course of remediation activities approximately 300 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

5.0 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.

7.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with NMOCD approved workplans. 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 Grizzly Energy, LLC provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the Aspen 32 State Com #001 Site.

8.0 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. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

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

9.0 DISTRIBUTION

Grizzly Energy, LLC

4001 Penbrook

Suite 201

Odessa, TX 79762

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 2

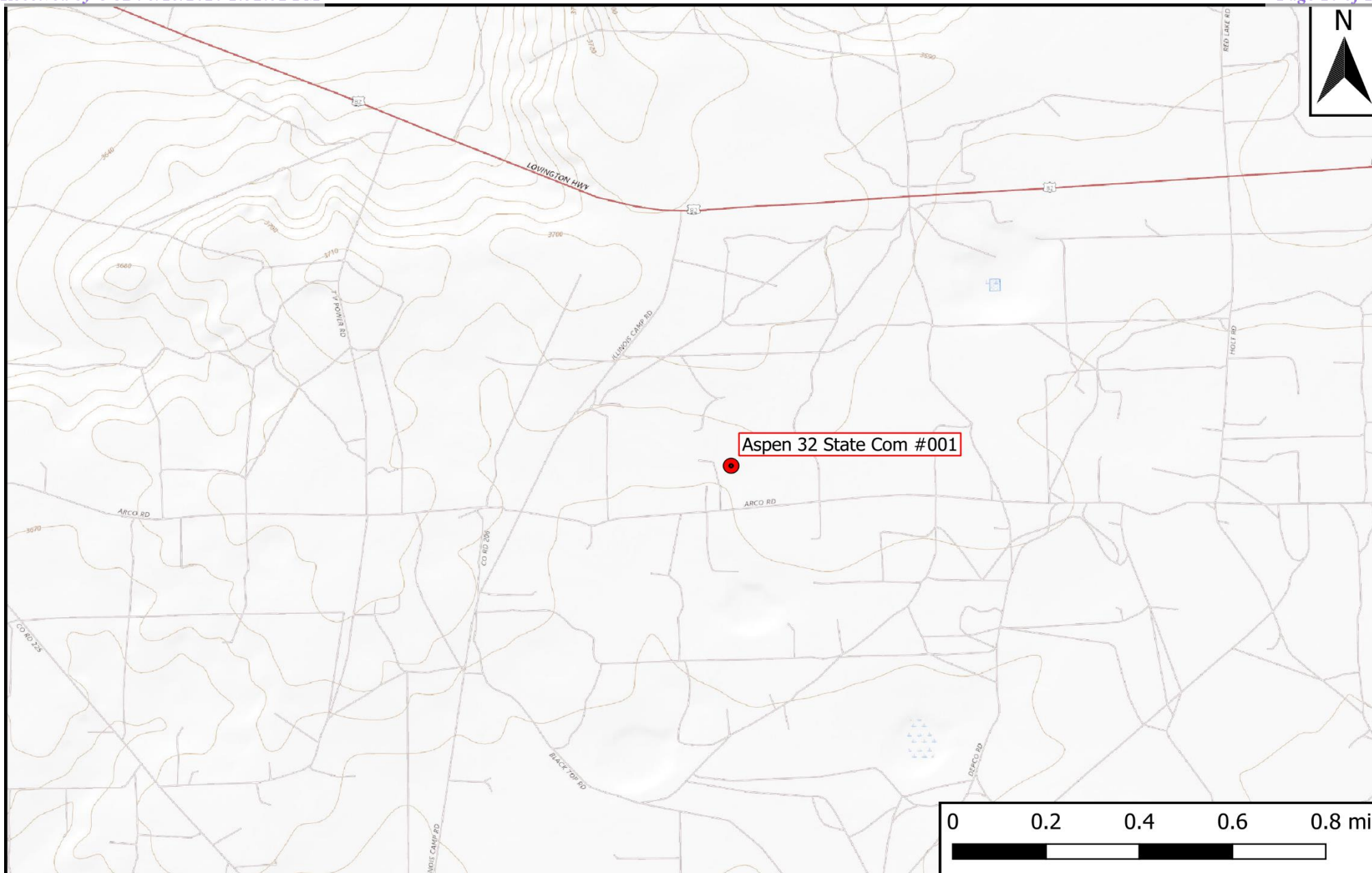
811 S. First Street

Artesia, NM 88210

(Electronic Submission)

Figure 1

Topographic Map

**Legend**

● Site Location

Figure 1

Topographic Map
Grizzly Energy, LLC
Aspen 32 State Com #001
GPS: 32.78792, -104.19439
Eddy County



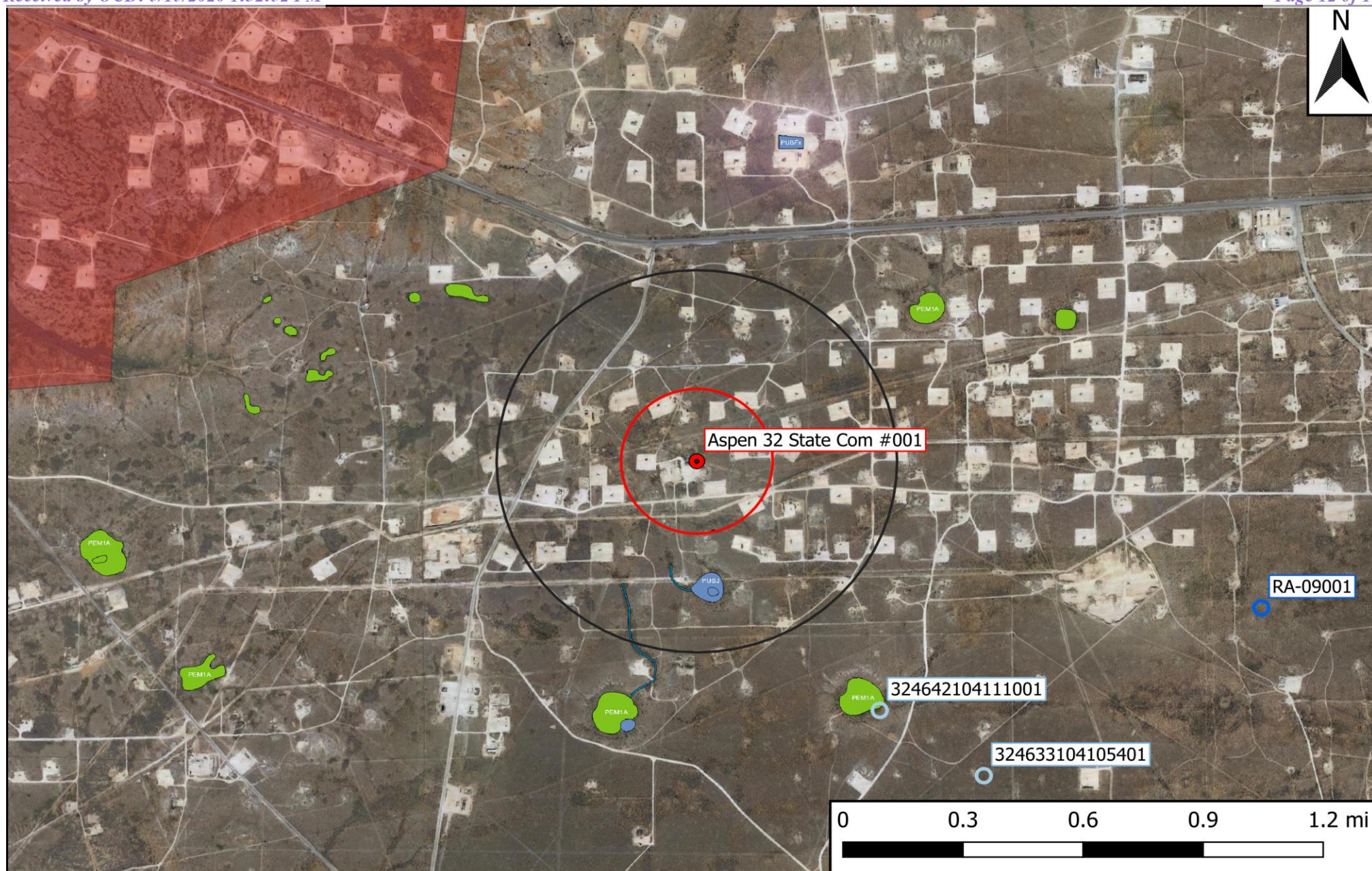
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Checked: jwl

Date: 4/1/20

Figure 2

Aerial Proximity Map



Legend

- Site Location
- Well - NMOSE
- Well - USGS
- High Karst
- Potash Mine Workings
- 0.5 Mi Radius
- 1000 Ft Radius
- 1% Annual Flood Chance
- Lake/Freshwater Pond
- Emergent/Forested Wetlands
- Riverine

Figure 2
 Aerial Map
 Grizzly Energy, LLC
 Aspen 32 State Com #001
 GPS: 32.78792, -104.19439
 Eddy County

eTECH
 Environmental & Safety Solutions, Inc.

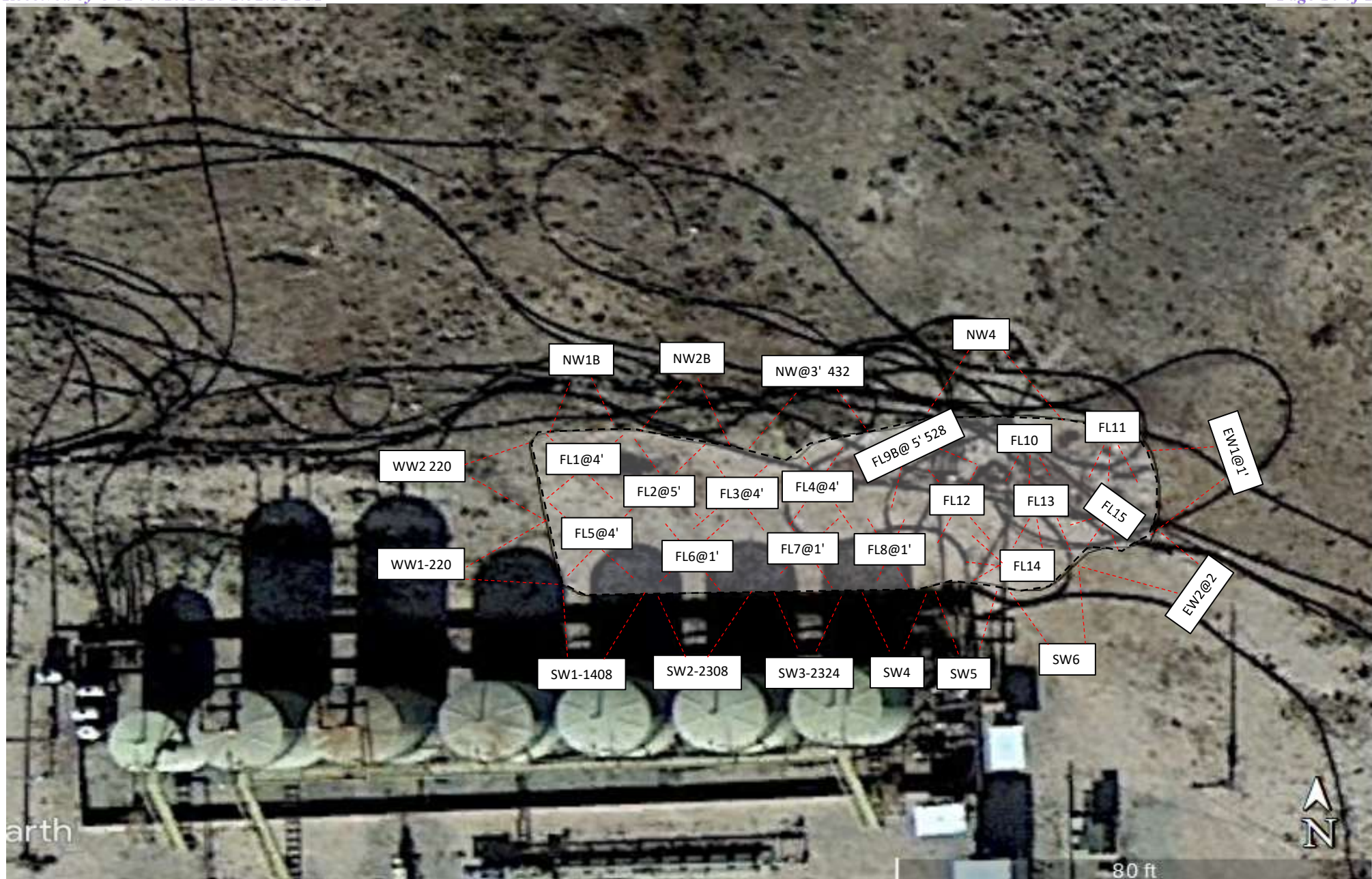
Drafted: mag

Checked: jwl

Date: 4/1/20

Figure 3

Site and Sample Location Map



Legend:

- NW4 Sample ID
 Composite Sample Area
 Excavated Area

Figure 3

Site and Sample Location Map
 Site Diagram
 Aspen 32 State Com #001
 Grizzly Energy, LLC
 GPS: 32.78792, -104.19439

eTECH
 Environmental & Safety Solutions, Inc.

Drafted: LS

Checked: jwl

Date: 5/14/20

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

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH, AND CHLORIDE IN SOIL
Grizzly Energy, LLC
Aspen 32 State Com #001
NMOCD Ref. #: 2RP-5318

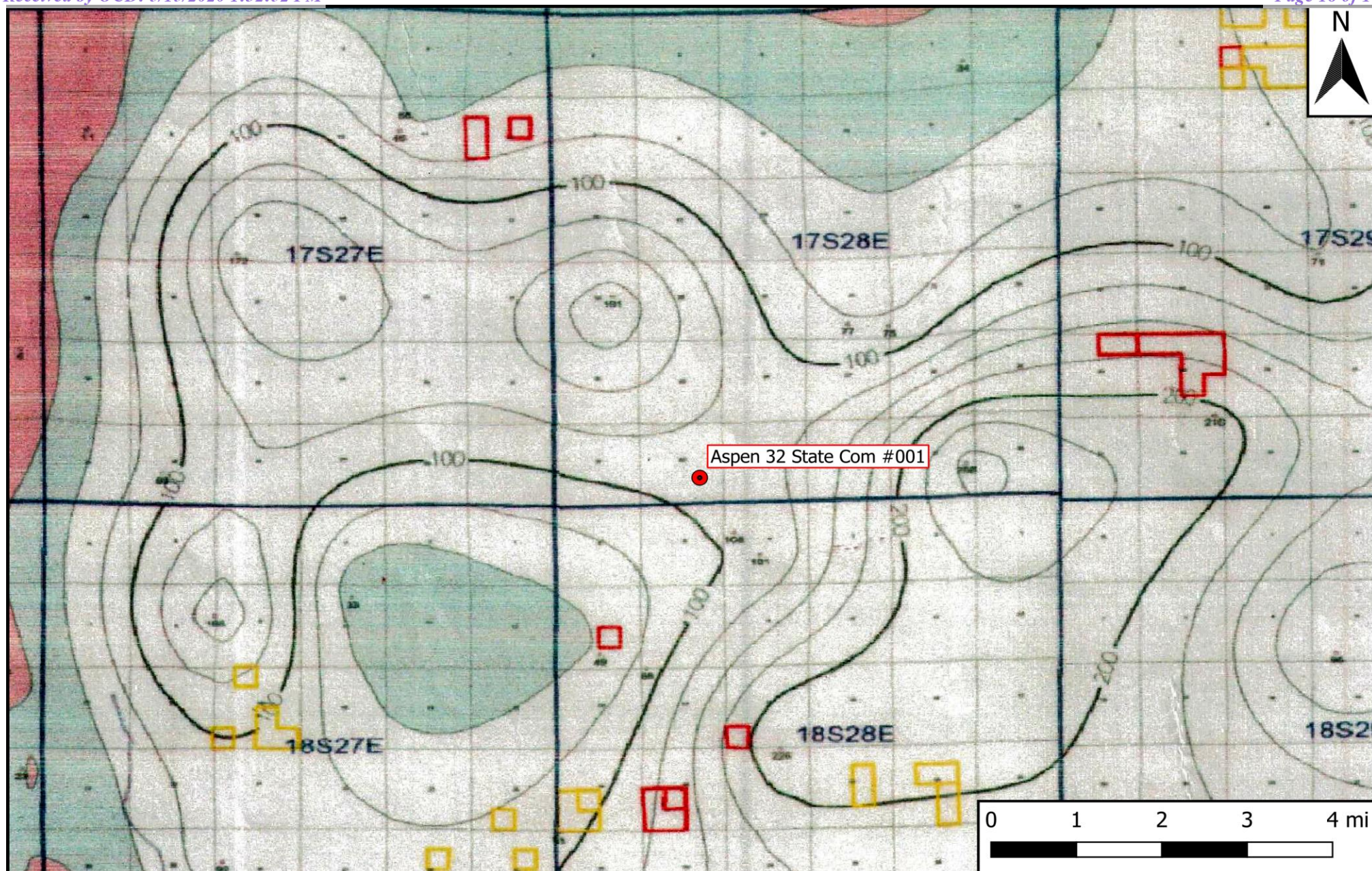
NMOCD Closure Criteria				10	50	-	-	1000	-	2500	20000
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
FL1 @ 4'	4/14/20	4'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,060
FL2 @ 5'	4/15/20	5'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	1,340
FL3 @ 4	4/16/20	4'	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	2,500
FL4 @ 4'	4/21/20	4'	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	1,300
FL5 @ 4'	4/21/20	4'	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	1,710
FL6 @ 1'	4/21/20	1'	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	2,250
FL7 @ 1'	4/21/20	1'	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	1,350
FL8 @ 1'	4/21/20	1'	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	2,830
FL9 @ 3' 528	4/23/20	3'	Excavated	<0.00863	<0.00447	<49.9	121	121	<49.9	121	465
FL 10	4/27/20	1'	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	177
FL 11	4/27/20	6"	In-Situ	<0.00200	<0.00200	<50.0	271	271	68.9	340	160
FL 12	4/27/20	6"	In-Situ	<0.00199	<0.00199	<49.9	51.7	51.7	<49.9	51.7	17.5
FL 13	4/27/20	6"	In-Situ	<0.00200	<0.00200	<49.8	60.3	60.3	<49.8	60.3	17.5
FL 14	4/27/20	6"	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	10.2
FL 15	4/27/20	6"	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	11.2
NW1b	4/16/20	N/A	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	5.33
NW2b	4/16/20	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00
NW3 @ 3' 432	4/23/20	N/A	Excavated	<0.00775	<0.00401	<49.9	146	146	<49.9	146	455
NW 4	4/27/20	N/A	In-Situ	<0.00202	<0.00202	<49.9	51.1	51.1	<49.9	51.1	14.6
NW5	4/27/20	N/A	In-Situ	<0.00200	<0.00200	<49.9	60.6	60.6	<49.9	60.6	16.1
EW1 @ 1'	4/28/20	N/A	In-Situ	<0.00199	<0.00199	<49.8	85.3	85	<49.8	85.3	14.3
EW2 @ 2'	4/28/20	N/A	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	14.6
SW1	4/16/20	N/A	In-Situ	<0.00198	<0.00198	<50.0	890	890	201	1,090	2,720
SW1B	4/27/20	N/A	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	261
SW1 1408	4/23/20	N/A	In-Situ	<0.00906	<0.00469	<49.9	<49.9	<49.9	<49.9	<49.9	1,540
SW2 2308	4/23/20	N/A	In-Situ	<0.00854	<0.00442	<50.0	<50.0	<50.0	<50.0	<50.0	3,780
SW3 2324	4/23/20	N/A	In-Situ	<0.00828	<0.00429	<50.0	<50.0	<50.0	<50.0	<50.0	4,230
SW4 @ 6"	4/28/20	N/A	In-Situ	<0.00200	<0.00200	<50.0	77.2	77.2	<50.0	77.2	13.1
SW5 @ 6"	4/28/20	N/A	In-Situ	<0.00201	<0.00201	<50.0	83.3	83.3	<50.0	83.3	13.4
SW6 @ 6"	4/28/20	N/A	In-Situ	<0.00200	<0.00200	<49.9	82.6	83	<49.9	82.6	14.6
WW1 220	4/23/20	N/A	In-Situ	<0.00908	<0.00470	<50.0	<50.0	<50.0	<50.0	<50.0	20.3
WW2 220	4/23/20	N/A	In-Situ	<0.00794	<0.00411	<49.9	<49.9	<49.9	<49.9	<49.9	25.6
FL9 B @ 5' 528	5/5/20	5'	In-Situ	-	-	<49.9	<50.0	<50.0	<50.0	<50.0	-
NW3-B	5/5/20	N/A	In-Situ	-	-	<49.9	<49.9	<49.9	<49.9	<49.9	-

NOTES:

- = Sample not analyzed for that constituent.

Appendix A

Depth to Groundwater Information



Legend

● Site Location

Figure 4

Inferred Depth to Groundwater Trend Map
Grizzly Energy, LLC
Aspen 32 State Com #001
GPS: 32.78792, -104.19439
Eddy County

eTECH
Environmental & Safety Solutions, Inc.

Drafted: mag

Checked: jwl

Date: 4/1/20



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

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

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
RA 11857 POD1		RA	ED	1	1	2	05	18S	26E	577784	3625988	3132	235	95	140
Average Depth to Water:														95 feet	
Minimum Depth:														95 feet	
Maximum Depth:														95 feet	

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 575437.3

Northing (Y): 3628063.34

Radius: 3220

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.

4/1/20 8:14 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
RA	11857 POD1	1	1	2	05	18S	26E	577784	3625988

x

Driller License: 1064 **Driller Company:** DELFORD W. MARTIN

Driller Name: MARTIN, DELFORD

Drill Start Date: 09/25/2012

Drill Finish Date: 10/01/2012

Plug Date:
Log File Date: 10/15/2012

PCW Rcv Date:
Source: Shallow

Pump Type:
Pipe Discharge Size:
Estimated Yield: 95 GPM

Casing Size: 5.00

Depth Well: 235 feet

Depth Water: 95 feet

x

Water Bearing Stratifications:

Top	Bottom	Description
95	130	Sandstone/Gravel/Conglomerate
160	235	Sandstone/Gravel/Conglomerate

x

Casing Perforations:

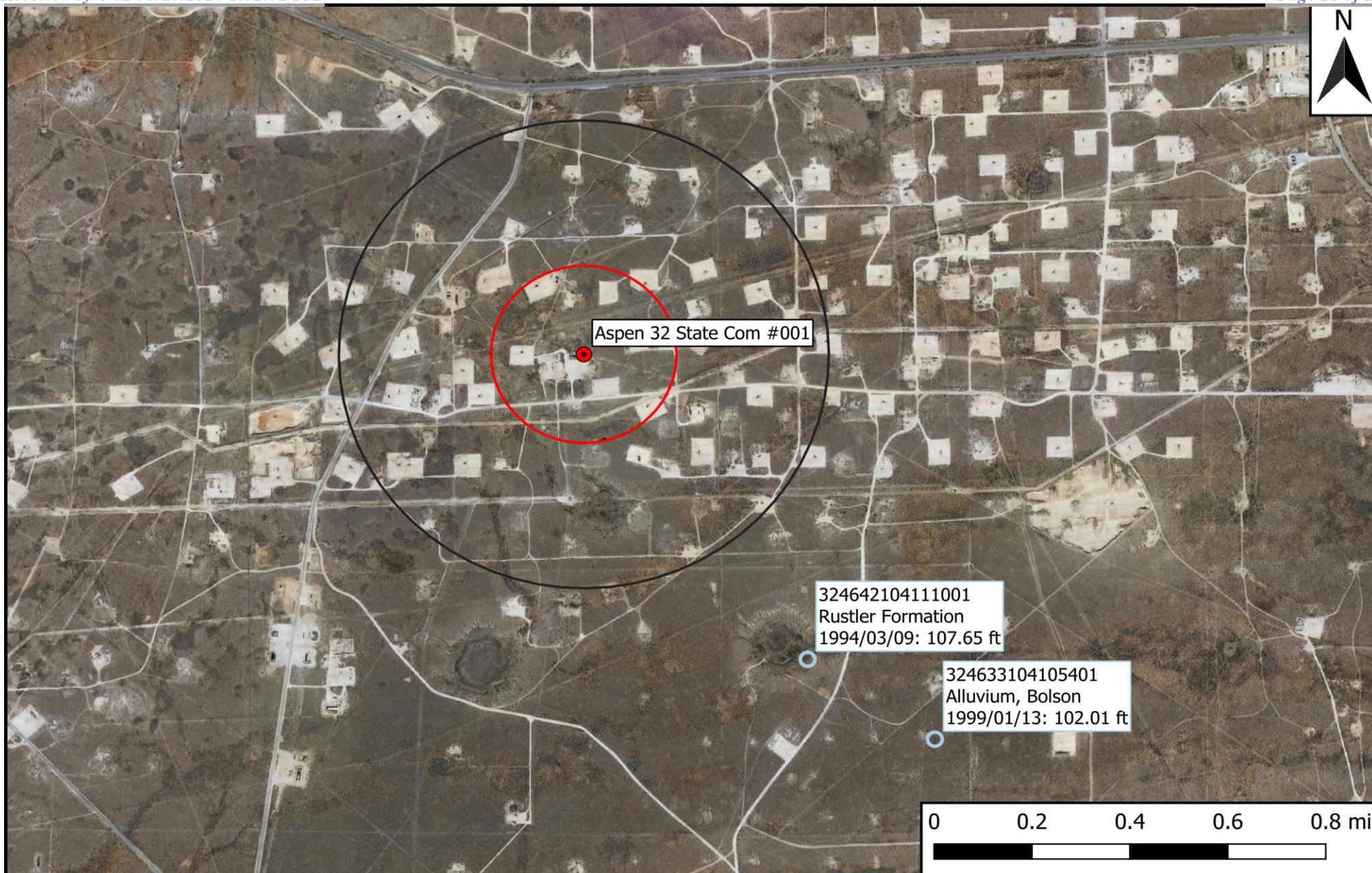
Top	Bottom
140	235

x

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.

4/1/20 8:14 AM

POINT OF DIVERSION SUMMARY



Legend

- Site Location
- Well - USGS
- 0.5 Mi Radius
- 1000 Ft Radius

Figure 5

USGS Well Proximity Map
Grizzly Energy, LLC
Aspen 32 State Com #001
GPS: 32.78792, -104.19439
Eddy County



Drafted: mag

Checked: jwl

Date:

4/1/20



National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 324633104105401

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

USGS 324633104105401 18S.28E.04.32412

Eddy County, New Mexico
Latitude 32°46'33", Longitude 104°10'54" NAD27
Land-surface elevation 3,665 feet above NAVD88
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

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	? Water-level approval status
1985-06-04		D	103.08			2		U			A
1989-02-02		D	107.27			2		U			A
1994-03-09		D	100.78			2		S			A
1999-01-13		D	102.01			2		S	USGS		A

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.
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
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: 2020-04-01 10:09:39 EDT

0.27 0.24 nadww01



National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

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- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 324642104111001

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

USGS 324642104111001 18S.28E.04.131444

Eddy County, New Mexico
Latitude 32°46'42", Longitude 104°11'10" NAD27
Land-surface elevation 3,640 feet above NGVD29
The depth of the well is 145.00 feet below land surface.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

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	? Water-level approval status
1985-06-04		D	109.39			2	Z	S		U	A
1990-09-19		D	106.60			2	Z	S		U	A
1994-03-09		D	107.65			2	Z	S		U	A

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	Z	Other conditions existed that would affect the measured water level (explain in remarks).
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Page Last Modified: 2020-04-01 10:09:42 EDT

0.31 0.24 nadww01

Appendix B

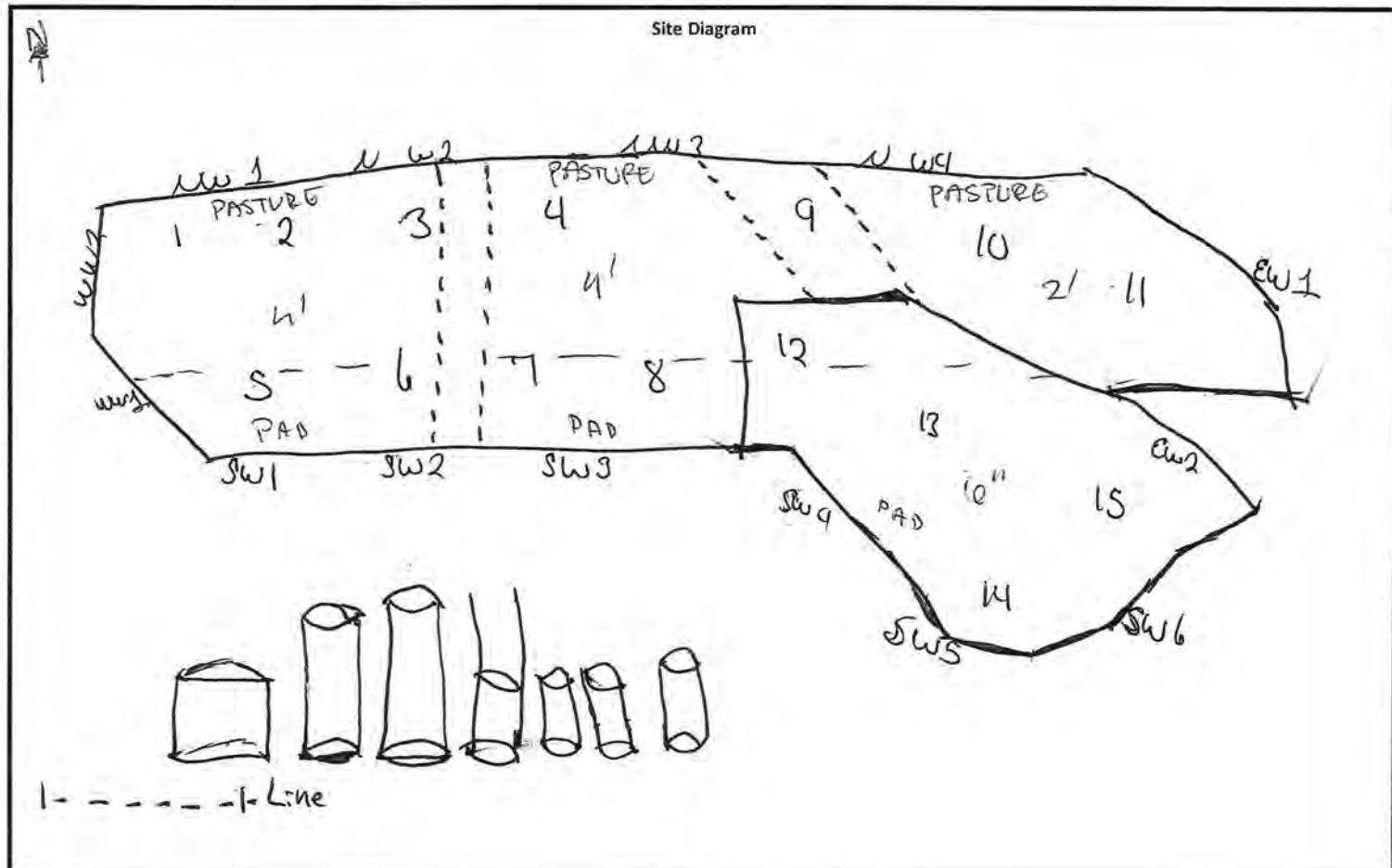
Field Data and Soil Profile Logs



Initial Release Assessment Form

Project: Aspen 32 St. Com #001 Date: 4-22-20
 Project Number: 11982 Clean Up Level: _____ Latitude: 32.78792 Longitude: -104.19439

Site Diagram



Notes:

Collected soil confirmation samples
 Sent samples to lab
 Assisted in backhoe in excavation

~Length: 105' ~Width: 35' ~Area: 240 ~Depth: 6" - 4'

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

Necessary Samples Field Screened and on Ice?

Sample and Field Screen Data Entered on Sample Log?

Was horizontal and vertical delineation achieved?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>



Sample Log

Date: _____

Project: Aspen 32 State Com #001

Project Number: 11982

Latitude: 32.78792

Longitude: -104.19439

Sample ID	PID/Odor	Chloride Conc.	GPS
FL 1 @ 3'	light	1200 *	
FL 1 @ 4'	none	916	
FL 2 @ 5'	light	848	
NW 1	none	1444 *	
NW 2	none	2324 *	
SW 1	some	2008	
FL 3 @ 4'	none	1408 / 1600	
NW 1b	none	220	
NW 2b	none	220	
FL 4 @ 4'	none	2324	
FL 5 @ 4'	none	1144	
FL 6 @ 1'	none	1408	
FL 7 @ 1'	none	2324	
FL 8 @ 1'	none	1408	
NW 1	none	220 Heter Sampling	
NW 2	none	220	
SW 1	light	1408	
SW 2	light	2308	
SW 3	light	2324	
NW 3 @ 3'	light	432	
FL 9 @ 3'	Light	508	
FL 10	none	388	
FL 11 @ 1'	Light	480	
FL 12 @ 6"	none	388	
FL 13 @ 6"	none	220	
FL 14 @ 6"	none	432	
FL 15 @ 6"	none	388	
NW 4 @ 1'	none	220	
NW 5 @ 1'	none	220	

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

A- Did not go to lab



Date: _____

Project Number: 11942

Latitude: 32 78792

Longitude: - 104. 19439

GPS Sample Points, Center of Comp Areas

Appendix C

Laboratory Analytical Reports



Certificate of Analysis Summary 660559

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 001

Project Id: 11982

Contact: PM

Project Location:

Date Received in Lab: Tue 05.05.2020 10:23

Report Date: 05.06.2020 15:45

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	660559-001	660559-002				
	Field Id:	FL9-B	NW3-B				
	Depth:	5-					
	Matrix:	SOIL	SOIL				
	Sampled:	05.04.2020 00:00	05.05.2020 00:00				
TPH By SW8015 Mod	Extracted:	* * * * *		* * * * *			
	Analyzed:	05.05.2020 15:19		05.05.2020 15:38			
	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 660559

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Aspen 32 001

11982

05.06.2020

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)



05.06.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **660559**

Aspen 32 001

Project Address:

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) 660559. 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. 660559 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 660559

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL9-B	S	05.04.2020 00:00	5	660559-001
NW3-B	S	05.05.2020 00:00		660559-002



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Aspen 32 001

Project ID: 11982
Work Order Number(s): 660559

Report Date: 05.06.2020
Date Received: 05.05.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 660559

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 001

Sample Id: **FL9-B**
Lab Sample Id: 660559-001

Matrix: Soil
Date Collected: 05.04.2020 00:00

Date Received: 05.05.2020 10:23
Sample Depth: 5

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3125132

Prep Method: SW8015P

% Moisture:

Date Prep: 05.05.2020 10:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.05.2020 15:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.05.2020 15:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.05.2020 15:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.05.2020 15:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	05.05.2020 15:19	
o-Terphenyl	84-15-1	78	%	70-130	05.05.2020 15:19	



Certificate of Analytical Results 660559

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 001

Sample Id: **NW3-B**
Lab Sample Id: 660559-002

Matrix: Soil
Date Collected: 05.05.2020 00:00

Date Received: 05.05.2020 10:23

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 05.05.2020 10:00

Basis: Wet Weight

Seq Number: 3125132

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.05.2020 15:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	05.05.2020 15:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.05.2020 15:38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	05.05.2020 15:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	05.05.2020 15:38	
o-Terphenyl	84-15-1	79	%	70-130	05.05.2020 15:38	



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

Aspen 32 001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125132

MB Sample Id: 7702758-1-BLK

Matrix: Solid

LCS Sample Id: 7702758-1-BKS

Prep Method: SW8015P

Date Prep: 05.05.2020

LCSD Sample Id: 7702758-1-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	890	89	892	89	70-130	0	20	mg/kg	05.05.2020 12:44	
Diesel Range Organics (DRO)	<50.0	1000	941	94	937	94	70-130	0	20	mg/kg	05.05.2020 12:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	79		89		92		70-130	%	05.05.2020 12:44
o-Terphenyl	82		88		84		70-130	%	05.05.2020 12:44

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125132

MB Sample Id: 7702758-1-BLK

Matrix: Solid

Prep Method: SW8015P

Date Prep: 05.05.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	05.05.2020 12:25	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3125132

Parent Sample Id: 660520-001

Matrix: Soil

MS Sample Id: 660520-001 S

Prep Method: SW8015P

Date Prep: 05.05.2020

MSD Sample Id: 660520-001 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	866	87	868	87	70-130	0	20	mg/kg	05.05.2020 13:42	
Diesel Range Organics (DRO)	83.7	997	930	85	931	85	70-130	0	20	mg/kg	05.05.2020 13:42	

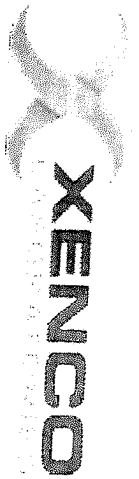
Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	89		91		70-130	%	05.05.2020 13:42
o-Terphenyl	89		84		70-130	%	05.05.2020 13:42

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



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:

040559

www.xenco.com Page of

Work Order Comments

Program: UST/PT ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
 State of Project:

Reporting Level I ☐ Level II ☐ PST/US ☐ TRR ☐ Level I ☐
 Deliverables: EDD ☐ ADAPT ☐ Other:

Preservative Codes

HNO₃: HN
 H₂SO₄: H2
 HCL: HL
 None: NO
 NaOH: Na
 MeOH: Me
 Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:30pm

Sample Comments

ANALYSIS REQUEST

Number of Containers/Preservative Code
 Chloride E300
 BTEX 8021
 TPH Modified Ext
 TPH TX1005

Turn Around

Routine: ☐
 Rush: ☒
 Due Date:

SAMPLE RECEIPT

Temp Blank: Yes ☒ No ☐
 Received Inact: Yes ☒ No ☐
 Cooler Custody Seals: Yes ☒ No ☐
 Sample Custody Seals: Yes ☒ No ☐
 Correction Factor: -0.3
 Total Containers:

Sample Identification

Matrix: Date Sampled: 5/4/20 Time Sampled: 5:05 PM Depth: 5
 FL9-B
 NW3-B

Total 200.7 / 6010 200.8 / 6020:

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

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$750.00 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

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

ORIGIN ID: H08A 10707-324-1000
 MAIL SERVICES ETC, LLC
 4008 N GRIMES
 JOBS, NM 88240
 UNITED STATES US
 BILL RECIPIENT

ACTUAL: 32.00 LB MAN
 GPD: 0908328/CAFEE3211
 DIMS: 27x16x16 IN

XENCO LABORATORIES HOLD FOR PICK UP
 FEDEX EXPRESS SHIP CENTER
 FEDEX EXPRESS SHIP CENTER
 3600 COUNTY ROAD 1276 SOUTH
 MIDLAND TX 79711

(432) 563-1800
 INV: PO:
 REF: DEPT:

TRK# 4705 2523 5472
 0201
 41 MAFA
 TX-US LBB

TUE - 05 MAY HOLD
 PRIORITY OVERNIGHT
 HLD
 MAFA

FedEx
 Express

1181116860581111

55103/2975/184C

XENCO Laboratories**Prelogin/Nonconformance Report- Sample Log-In****Client:** Etech Environmental & Safety Solution, I**Date/ Time Received:** 05.05.2020 10.23.11 AM**Work Order #:** 660559**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?	No
#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?	No
#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: 05.06.2020

Checklist reviewed by:

Jessica Kramer

Date: 05.06.2020



Certificate of Analysis Summary 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 St Com #001

Project Id: 11982
Contact: PM
Project Location: Eddy County

Date Received in Lab: Thu 04.30.2020 10:00

Report Date: 05.01.2020 17:00

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	660216-001	660216-002	660216-003	660216-004	660216-005	
	<i>Field Id:</i>	SW4	SW5	SW6	EW1	EW2	
	<i>Depth:</i>	6- In	6- In	6- In	1- ft	1- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	04.28.2020 00:00	04.28.2020 00:00	04.28.2020 00:00	04.28.2020 00:00	04.28.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	04.30.2020 17:00	04.30.2020 17:00	04.30.2020 17:00	04.30.2020 17:00	04.30.2020 17:00	
	<i>Analyzed:</i>	05.01.2020 01:17	05.01.2020 01:37	05.01.2020 09:20	05.01.2020 09:40	05.01.2020 10:00	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	
Toluene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	
m,p-Xylenes		<0.00399 0.00399	<0.00402 0.00402	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398	
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	
Total BTEX		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	
Chloride by EPA 300	<i>Extracted:</i>	04.30.2020 18:00	04.30.2020 18:00	04.30.2020 18:00	04.30.2020 18:00	04.30.2020 18:00	
	<i>Analyzed:</i>	05.01.2020 01:03	05.01.2020 01:18	05.01.2020 01:24	05.01.2020 01:29	05.01.2020 01:34	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		13.1 4.99	13.4 5.04	14.6 4.97	14.3 4.97	14.6 5.05	
TPH By SW8015 Mod	<i>Extracted:</i>	04.30.2020 15:00	04.30.2020 15:00	04.30.2020 15:00	04.30.2020 15:00	04.30.2020 15:00	
	<i>Analyzed:</i>	05.01.2020 00:31	05.01.2020 00:50	05.01.2020 01:09	05.01.2020 01:28	05.01.2020 01:47	
	<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	<49.9 49.9	<49.8 49.8	<50.0 50.0	
Diesel Range Organics (DRO)		77.2 50.0	83.3 50.0	82.6 49.9	85.3 49.8	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	
Total TPH		77.2 50.0	83.3 50.0	82.6 49.9	85.3 49.8	<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 660216

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Aspen 32 St Com #001

11982

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): **660216**

Aspen 32 St Com #001

Project Address: Eddy County

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) 660216. 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. 660216 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 660216****Etech Environmental & Safety Solution, Inc, Midland, TX**

Aspen 32 St Com #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW4	S	04.28.2020 00:00	6 In	660216-001
SW5	S	04.28.2020 00:00	6 In	660216-002
SW6	S	04.28.2020 00:00	6 In	660216-003
EW1	S	04.28.2020 00:00	1 ft	660216-004
EW2	S	04.28.2020 00:00	1 ft	660216-005



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Aspen 32 St Com #001

Project ID: 11982
Work Order Number(s): 660216

Report Date: 05.01.2020
Date Received: 04.30.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3124748 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered below QC limits. Samples affected are: 7702490-1-BLK,660216-001.



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **SW4** Matrix: Soil Date Received: 04.30.2020 10:00
 Lab Sample Id: 660216-001 Date Collected: 04.28.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.30.2020 18:00 Basis: Wet Weight
 Seq Number: 3124709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.1	4.99	mg/kg	05.01.2020 01:03		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.30.2020 15:00 Basis: Wet Weight
 Seq Number: 3124734

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.01.2020 00:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	77.2	50.0	mg/kg	05.01.2020 00:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.01.2020 00:31	U	1
Total TPH	PHC635	77.2	50.0	mg/kg	05.01.2020 00:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	05.01.2020 00:31	
o-Terphenyl	84-15-1	75	%	70-130	05.01.2020 00:31	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **SW4**
Lab Sample Id: 660216-001

Matrix: Soil
Date Collected: 04.28.2020 00:00

Date Received: 04.30.2020 10:00
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.30.2020 17:00

Basis: Wet Weight

Seq Number: 3124748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 01:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 01:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 01:17	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 01:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 01:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 01:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 01:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	64	%	70-130	05.01.2020 01:17	**
1,4-Difluorobenzene	540-36-3	95	%	70-130	05.01.2020 01:17	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **SW5** Matrix: Soil Date Received: 04.30.2020 10:00
 Lab Sample Id: 660216-002 Date Collected: 04.28.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.30.2020 18:00 Basis: Wet Weight
 Seq Number: 3124709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	5.04	mg/kg	05.01.2020 01:18		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.30.2020 15:00 Basis: Wet Weight
 Seq Number: 3124734

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.01.2020 00:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	83.3	50.0	mg/kg	05.01.2020 00:50		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.01.2020 00:50	U	1
Total TPH	PHC635	83.3	50.0	mg/kg	05.01.2020 00:50		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	05.01.2020 00:50	
o-Terphenyl	84-15-1	84	%	70-130	05.01.2020 00:50	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **SW5**
Lab Sample Id: 660216-002

Matrix: Soil
Date Collected: 04.28.2020 00:00

Date Received: 04.30.2020 10:00
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.30.2020 17:00

Basis: Wet Weight

Seq Number: 3124748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	05.01.2020 01:37	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	05.01.2020 01:37	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	05.01.2020 01:37	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	05.01.2020 01:37	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	05.01.2020 01:37	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	05.01.2020 01:37	U	1
Total BTEX		<0.00201	0.00201	mg/kg	05.01.2020 01:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.01.2020 01:37		
4-Bromofluorobenzene	460-00-4	93	%	70-130	05.01.2020 01:37		



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **SW6** Matrix: Soil Date Received: 04.30.2020 10:00
 Lab Sample Id: 660216-003 Date Collected: 04.28.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.30.2020 18:00 Basis: Wet Weight
 Seq Number: 3124709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.6	4.97	mg/kg	05.01.2020 01:24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.30.2020 15:00 Basis: Wet Weight
 Seq Number: 3124734

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	05.01.2020 01:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	82.6	49.9	mg/kg	05.01.2020 01:09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	05.01.2020 01:09	U	1
Total TPH	PHC635	82.6	49.9	mg/kg	05.01.2020 01:09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-130	05.01.2020 01:09	
o-Terphenyl	84-15-1	73	%	70-130	05.01.2020 01:09	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **SW6**
Lab Sample Id: 660216-003

Matrix: Soil
Date Collected: 04.28.2020 00:00

Date Received: 04.30.2020 10:00
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.30.2020 17:00

Basis: Wet Weight

Seq Number: 3124748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	05.01.2020 09:20	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	05.01.2020 09:20	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	05.01.2020 09:20	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	05.01.2020 09:20	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	05.01.2020 09:20	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	05.01.2020 09:20	U	1
Total BTEX		<0.00200	0.00200	mg/kg	05.01.2020 09:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	05.01.2020 09:20	
1,4-Difluorobenzene	540-36-3	106	%	70-130	05.01.2020 09:20	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **EW1** Matrix: Soil Date Received: 04.30.2020 10:00
 Lab Sample Id: 660216-004 Date Collected: 04.28.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.30.2020 18:00 Basis: Wet Weight
 Seq Number: 3124709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.3	4.97	mg/kg	05.01.2020 01:29		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.30.2020 15:00 Basis: Wet Weight
 Seq Number: 3124734

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	05.01.2020 01:28	U	1
Diesel Range Organics (DRO)	C10C28DRO	85.3	49.8	mg/kg	05.01.2020 01:28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	05.01.2020 01:28	U	1
Total TPH	PHC635	85.3	49.8	mg/kg	05.01.2020 01:28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-130	05.01.2020 01:28	
o-Terphenyl	84-15-1	72	%	70-130	05.01.2020 01:28	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **EW1**
Lab Sample Id: 660216-004

Matrix: Soil
Date Collected: 04.28.2020 00:00

Date Received: 04.30.2020 10:00
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3124748

Prep Method: SW5035A

% Moisture:

Date Prep: 04.30.2020 17:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.01.2020 09:40	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.01.2020 09:40	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.01.2020 09:40	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.01.2020 09:40	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.01.2020 09:40	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.01.2020 09:40	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.01.2020 09:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	05.01.2020 09:40	
4-Bromofluorobenzene	460-00-4	105	%	70-130	05.01.2020 09:40	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **EW2** Matrix: Soil Date Received: 04.30.2020 10:00
 Lab Sample Id: 660216-005 Date Collected: 04.28.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: SPC % Moisture:
 Analyst: SPC Date Prep: 04.30.2020 18:00 Basis: Wet Weight
 Seq Number: 3124709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.6	5.05	mg/kg	05.01.2020 01:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.30.2020 15:00 Basis: Wet Weight
 Seq Number: 3124734

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	05.01.2020 01:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	05.01.2020 01:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	05.01.2020 01:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	05.01.2020 01:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	05.01.2020 01:47	
o-Terphenyl	84-15-1	76	%	70-130	05.01.2020 01:47	



Certificate of Analytical Results 660216

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St Com #001

Sample Id: **EW2**
Lab Sample Id: 660216-005

Matrix: Soil
Date Collected: 04.28.2020 00:00

Date Received: 04.30.2020 10:00
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.30.2020 17:00

Basis: Wet Weight

Seq Number: 3124748

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	05.01.2020 10:00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	05.01.2020 10:00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	05.01.2020 10:00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	05.01.2020 10:00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	05.01.2020 10:00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	05.01.2020 10:00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	05.01.2020 10:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	107	%	70-130	05.01.2020 10:00		
4-Bromofluorobenzene	460-00-4	100	%	70-130	05.01.2020 10:00		



Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

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

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

+ NELAC certification not offered for this compound.

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



Etech Environmental & Safety Solution, Inc

Aspen 32 St Com #001

Analytical Method: Chloride by EPA 300

Seq Number: 3124709

MB Sample Id: 7702467-1-BLK

Matrix: Solid

LCS Sample Id: 7702467-1-BKS

Prep Method: E300P

Date Prep: 04.30.2020

LCSD Sample Id: 7702467-1-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	271	108	237	95	90-110	13	20	mg/kg	05.01.2020 00:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3124709

Parent Sample Id: 660206-001

Matrix: Soil

MS Sample Id: 660206-001 S

Prep Method: E300P

Date Prep: 04.30.2020

MSD Sample Id: 660206-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	99.8	249	387	115	393	118	90-110	2	20	mg/kg	05.01.2020 00:36	X

Analytical Method: Chloride by EPA 300

Seq Number: 3124709

Parent Sample Id: 660316-001

Matrix: Soil

MS Sample Id: 660316-001 S

Prep Method: E300P

Date Prep: 04.30.2020

MSD Sample Id: 660316-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	58.9	252	329	107	343	113	90-110	4	20	mg/kg	05.01.2020 01:50	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124734

MB Sample Id: 7702449-1-BLK

Matrix: Solid

LCS Sample Id: 7702449-1-BKS

Prep Method: SW8015P

Date Prep: 04.30.2020

LCSD Sample Id: 7702449-1-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	883	88	875	88	70-130	1	20	mg/kg	04.30.2020 19:49	
Diesel Range Organics (DRO)	<50.0	1000	962	96	940	94	70-130	2	20	mg/kg	04.30.2020 19:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	81		88		87		70-130	%	04.30.2020 19:49
o-Terphenyl	84		84		81		70-130	%	04.30.2020 19:49

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124734

Matrix: Solid

MB Sample Id: 7702449-1-BLK

Prep Method: SW8015P

Date Prep: 04.30.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.30.2020 19:30	

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

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

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

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



Etech Environmental & Safety Solution, Inc
Aspen 32 St Com #001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124734

Parent Sample Id: 660173-001

Matrix: Soil

MS Sample Id: 660173-001 S

Prep Method: SW8015P

Date Prep: 04.30.2020

MSD Sample Id: 660173-001 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	887	89	893	89	70-130	1	20	mg/kg	04.30.2020 20:45	
Diesel Range Organics (DRO)	<50.0	999	957	96	966	97	70-130	1	20	mg/kg	04.30.2020 20:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	94		90		70-130	%	04.30.2020 20:45
o-Terphenyl	87		86		70-130	%	04.30.2020 20:45

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124748

MB Sample Id: 7702490-1-BLK

Matrix: Solid

LCS Sample Id: 7702490-1-BKS

Prep Method: SW5035A

Date Prep: 04.30.2020

LCSD Sample Id: 7702490-1-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	0.0821	82	0.0851	85	70-130	4	35	mg/kg	04.30.2020 21:38	
Toluene	<0.00200	0.100	0.0888	89	0.0912	91	70-130	3	35	mg/kg	04.30.2020 21:38	
Ethylbenzene	<0.00200	0.100	0.0952	95	0.0976	98	70-130	2	35	mg/kg	04.30.2020 21:38	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.199	100	70-130	3	35	mg/kg	04.30.2020 21:38	
o-Xylene	<0.00200	0.100	0.0971	97	0.0998	100	70-130	3	35	mg/kg	04.30.2020 21:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		109		108		70-130	%	04.30.2020 21:38
4-Bromofluorobenzene	64	**	116		117		70-130	%	04.30.2020 21:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124748

Parent Sample Id: 659915-003

Matrix: Soil

MS Sample Id: 659915-003 S

Prep Method: SW5035A

Date Prep: 04.30.2020

MSD Sample Id: 659915-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0510	51	0.0420	42	70-130	19	35	mg/kg	04.30.2020 22:19	X
Toluene	<0.00199	0.0994	0.0347	35	0.0303	30	70-130	14	35	mg/kg	04.30.2020 22:19	X
Ethylbenzene	<0.00199	0.0994	0.0344	35	0.0257	26	70-130	29	35	mg/kg	04.30.2020 22:19	X
m,p-Xylenes	<0.00398	0.199	0.0553	28	0.0512	26	70-130	8	35	mg/kg	04.30.2020 22:19	X
o-Xylene	<0.00199	0.0994	0.0401	40	0.0317	32	70-130	23	35	mg/kg	04.30.2020 22:19	X

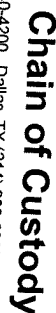
Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		13	**	70-130	%	04.30.2020 22:19
4-Bromofluorobenzene	56	**	57	**	70-130	%	04.30.2020 22:19

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

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

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

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



Work Order No.:

100210

Work Order Comments

Program: UST/ST ☐ PRP ☐ Brownfield ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level ☐ Level I ☐ PST/UST ☐ TRR ☐ Level II ☐

Deliverables: EDD ☐ ADAPT ☐ Other:

ANALYSIS REQUEST								Preservative Codes	
								HNO ₃ : HN	
								H ₂ SO ₄ : H2	
								HCL: HL	
								None: NO	
								NaOH: Na	
								MeOH: Me	
								Zn Acetate+ NaOH: Zn	

Total 200.7 / 6010 200.8 / 6020;

8RCRA

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

TCLP / SPLP 6

e: Signature of this document and relinquishment of samples cor

ites a valid purchase order

A minimum charge of \$75.00 will be applied to each project.

Assume any responsibility for

Relinquished by: (Signature) _____

Charge of \$5 for each set

10-3-11-11	REC'D
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Signature)

10/20/80	10/20/80
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20/09/2022

[illegible][illegible]

100

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: 04.30.2020 10.00.00 AM

Work Order #: 660216

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?	Yes	
#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: 04.30.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.30.2020



Certificate of Analysis Summary 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Apsen 32 SL Com #001

Project Id: 11952

Contact: PM

Project Location:

Date Received in Lab: Tue 04.28.2020 11:20

Report Date: 04.29.2020 16:17

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659899-001	659899-002	659899-003	659899-004	659899-005	659899-006
	<i>Field Id:</i>	FL 10	FL 11	FL 12	FL 13	FL 14	FL 15
	<i>Depth:</i>	1- ft	6- ft	6- ft	6- ft	6- ft	6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.27.2020 00:00	04.27.2020 00:00	04.27.2020 00:00	04.27.2020 00:00	04.27.2020 00:00	04.27.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	04.28.2020 17:15	04.28.2020 17:15	04.28.2020 17:15	04.28.2020 17:15	04.28.2020 17:15	04.28.2020 17:15
	<i>Analyzed:</i>	04.29.2020 13:03	04.29.2020 13:23	04.29.2020 13:44	04.29.2020 14:04	04.29.2020 14:25	04.29.2020 14:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		<0.00399 0.00399	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00400 0.00400	<0.00403 0.00403
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	04.28.2020 17:05	04.28.2020 17:05	04.28.2020 17:05	04.28.2020 17:05	04.28.2020 17:05	04.28.2020 17:05
	<i>Analyzed:</i>	04.29.2020 02:06	04.29.2020 02:22	04.29.2020 02:28	04.29.2020 02:33	04.29.2020 02:38	04.29.2020 02:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		177 4.99	160 4.97	17.5 5.00	17.5 5.03	10.2 5.02	11.2 5.03
TPH by SW8015 Mod	<i>Extracted:</i>	04.28.2020 16:00	04.28.2020 16:00	04.28.2020 16:00	04.28.2020 16:00	04.28.2020 16:00	04.28.2020 16:00
	<i>Analyzed:</i>	04.28.2020 23:27	04.28.2020 23:46	04.29.2020 00:04	04.29.2020 00:23	04.29.2020 00:41	04.29.2020 01:00
	<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)		<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<49.8 49.8	271 50.0	51.7 49.9	60.3 49.8	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	68.9 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0
Total TPH		<49.8 49.8	340 50.0	51.7 49.9	60.3 49.8	<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.

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

Jessica Kramer
Project Manager



Certificate of Analysis Summary 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Apsen 32 SL Com #001

Project Id: 11952

Contact: PM

Project Location:

Date Received in Lab: Tue 04.28.2020 11:20

Report Date: 04.29.2020 16:17

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	659899-007	659899-008	659899-009			
	Field Id:	NW 4	NW5	SW1B			
	Depth:	6- ft	6- ft	6- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	04.27.2020 00:00	04.27.2020 00:00	04.27.2020 00:00			
BTEX by EPA 8021B	Extracted:	04.28.2020 17:15	04.28.2020 16:00	04.28.2020 16:00			
	Analyzed:	04.29.2020 15:06	04.28.2020 23:43	04.29.2020 00:03			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202			
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202			
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202			
m,p-Xylenes		<0.00404 0.00404	<0.00401 0.00401	<0.00403 0.00403			
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202			
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202			
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00202 0.00202			
Chloride by EPA 300	Extracted:	04.28.2020 17:05	04.28.2020 17:05	04.28.2020 17:05			
	Analyzed:	04.29.2020 02:59	04.29.2020 03:04	04.29.2020 03:10			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		14.6 4.98	16.1 4.97	261 4.97			
TPH by SW8015 Mod	Extracted:	04.28.2020 16:00	04.28.2020 16:00	04.28.2020 16:00			
	Analyzed:	04.29.2020 01:19	04.29.2020 01:38	04.29.2020 01:56			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9	<49.9 49.9			
Diesel Range Organics (DRO)		51.1 49.9	60.6 49.9	<49.9 49.9			
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<49.9 49.9			
Total TPH		51.1 49.9	60.6 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 659899

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Apsen 32 SL Com #001

11952

04.29.2020

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)



04.29.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **659899**

Apsen 32 SL Com #001

Project Address:

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) 659899. 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. 659899 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 659899****Etech Environmental & Safety Solution, Inc, Midland, TX**

Apsen 32 SL Com #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL 10	S	04.27.2020 00:00	1 ft	659899-001
FL 11	S	04.27.2020 00:00	6 ft	659899-002
FL 12	S	04.27.2020 00:00	6 ft	659899-003
FL 13	S	04.27.2020 00:00	6 ft	659899-004
FL 14	S	04.27.2020 00:00	6 ft	659899-005
FL 15	S	04.27.2020 00:00	6 ft	659899-006
NW 4	S	04.27.2020 00:00	6 ft	659899-007
NW5	S	04.27.2020 00:00	6 ft	659899-008
SW1B	S	04.27.2020 00:00	6 ft	659899-009



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Apsen 32 SL Com #001

Project ID: 11952
Work Order Number(s): 659899

Report Date: 04.29.2020
Date Received: 04.28.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3124469 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered below QC limits. Samples affected are: 7702281-1-BLK.



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 10** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-001 Date Collected: 04.27.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	177	4.99	mg/kg	04.29.2020 02:06		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.28.2020 23:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.28.2020 23:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.28.2020 23:27	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.28.2020 23:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	04.28.2020 23:27	
o-Terphenyl	84-15-1	90	%	70-130	04.28.2020 23:27	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 10**
Lab Sample Id: 659899-001

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3124476

Prep Method: SW5035A

% Moisture:

Date Prep: 04.28.2020 17:15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.29.2020 13:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.29.2020 13:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.29.2020 13:03	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.29.2020 13:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.29.2020 13:03	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.29.2020 13:03	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.29.2020 13:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.29.2020 13:03		
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.29.2020 13:03		



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 11** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-002 Date Collected: 04.27.2020 00:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	160	4.97	mg/kg	04.29.2020 02:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.28.2020 23:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	271	50.0	mg/kg	04.28.2020 23:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	68.9	50.0	mg/kg	04.28.2020 23:46		1
Total TPH	PHC635	340	50.0	mg/kg	04.28.2020 23:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	04.28.2020 23:46	
o-Terphenyl	84-15-1	88	%	70-130	04.28.2020 23:46	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 11**
Lab Sample Id: 659899-002

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.28.2020 17:15

Basis: Wet Weight

Seq Number: 3124476

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.29.2020 13:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.29.2020 13:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.29.2020 13:23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.29.2020 13:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.29.2020 13:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.29.2020 13:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.29.2020 13:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.29.2020 13:23		
4-Bromofluorobenzene	460-00-4	113	%	70-130	04.29.2020 13:23		



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 12** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-003 Date Collected: 04.27.2020 00:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.5	5.00	mg/kg	04.29.2020 02:28		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.29.2020 00:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	51.7	49.9	mg/kg	04.29.2020 00:04		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.29.2020 00:04	U	1
Total TPH	PHC635	51.7	49.9	mg/kg	04.29.2020 00:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	04.29.2020 00:04	
o-Terphenyl	84-15-1	80	%	70-130	04.29.2020 00:04	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 12**
Lab Sample Id: 659899-003

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.28.2020 17:15

Basis: Wet Weight

Seq Number: 3124476

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.29.2020 13:44	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.29.2020 13:44	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.29.2020 13:44	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.29.2020 13:44	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.29.2020 13:44	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.29.2020 13:44	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.29.2020 13:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.29.2020 13:44		
4-Bromofluorobenzene	460-00-4	109	%	70-130	04.29.2020 13:44		



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 13** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-004 Date Collected: 04.27.2020 00:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.5	5.03	mg/kg	04.29.2020 02:33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.29.2020 00:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	60.3	49.8	mg/kg	04.29.2020 00:23		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.29.2020 00:23	U	1
Total TPH	PHC635	60.3	49.8	mg/kg	04.29.2020 00:23		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	04.29.2020 00:23	
o-Terphenyl	84-15-1	82	%	70-130	04.29.2020 00:23	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 13**
Lab Sample Id: 659899-004

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3124476

Prep Method: SW5035A

% Moisture:

Date Prep: 04.28.2020 17:15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.29.2020 14:04	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.29.2020 14:04	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.29.2020 14:04	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.29.2020 14:04	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.29.2020 14:04	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.29.2020 14:04	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.29.2020 14:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.29.2020 14:04	
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.29.2020 14:04	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 14**
Lab Sample Id: 659899-005

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3124470

Date Prep: 04.28.2020 17:05

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.2	5.02	mg/kg	04.29.2020 02:38		1

Analytical Method: TPH by SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3124486

Date Prep: 04.28.2020 16:00

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	04.29.2020 00:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.29.2020 00:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.29.2020 00:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.29.2020 00:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	04.29.2020 00:41	
o-Terphenyl	84-15-1	83	%	70-130	04.29.2020 00:41	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 14**
Lab Sample Id: 659899-005

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3124476

Prep Method: SW5035A

% Moisture:

Date Prep: 04.28.2020 17:15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.29.2020 14:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.29.2020 14:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.29.2020 14:25	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.29.2020 14:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.29.2020 14:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.29.2020 14:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.29.2020 14:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	109	%	70-130	04.29.2020 14:25	
4-Bromofluorobenzene	460-00-4	99	%	70-130	04.29.2020 14:25	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 15** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-006 Date Collected: 04.27.2020 00:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.2	5.03	mg/kg	04.29.2020 02:54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.29.2020 01:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.29.2020 01:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.29.2020 01:00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.29.2020 01:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	04.29.2020 01:00	
o-Terphenyl	84-15-1	79	%	70-130	04.29.2020 01:00	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **FL 15**
Lab Sample Id: 659899-006

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.28.2020 17:15

Basis: Wet Weight

Seq Number: 3124476

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.29.2020 14:45	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.29.2020 14:45	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.29.2020 14:45	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.29.2020 14:45	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.29.2020 14:45	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.29.2020 14:45	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.29.2020 14:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	04.29.2020 14:45	
1,4-Difluorobenzene	540-36-3	114	%	70-130	04.29.2020 14:45	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **NW 4** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-007 Date Collected: 04.27.2020 00:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.6	4.98	mg/kg	04.29.2020 02:59		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.29.2020 01:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	51.1	49.9	mg/kg	04.29.2020 01:19		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.29.2020 01:19	U	1
Total TPH	PHC635	51.1	49.9	mg/kg	04.29.2020 01:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	04.29.2020 01:19	
o-Terphenyl	84-15-1	84	%	70-130	04.29.2020 01:19	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: NW 4
Lab Sample Id: 659899-007

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3124476

Prep Method: SW5035A

% Moisture:

Date Prep: 04.28.2020 17:15

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.29.2020 15:06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.29.2020 15:06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.29.2020 15:06	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	04.29.2020 15:06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.29.2020 15:06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.29.2020 15:06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.29.2020 15:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	04.29.2020 15:06		
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.29.2020 15:06		



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **NW5** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-008 Date Collected: 04.27.2020 00:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.1	4.97	mg/kg	04.29.2020 03:04		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.29.2020 01:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	60.6	49.9	mg/kg	04.29.2020 01:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.29.2020 01:38	U	1
Total TPH	PHC635	60.6	49.9	mg/kg	04.29.2020 01:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	04.29.2020 01:38	
o-Terphenyl	84-15-1	84	%	70-130	04.29.2020 01:38	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **NW5**
Lab Sample Id: 659899-008

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.28.2020 16:00

Basis: Wet Weight

Seq Number: 3124469

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.28.2020 23:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.28.2020 23:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.28.2020 23:43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	04.28.2020 23:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.28.2020 23:43	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.28.2020 23:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.28.2020 23:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	04.28.2020 23:43		
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.28.2020 23:43		



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **SW1B** Matrix: Soil Date Received: 04.28.2020 11:20
 Lab Sample Id: 659899-009 Date Collected: 04.27.2020 00:00 Sample Depth: 6 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 04.28.2020 17:05 Basis: Wet Weight
 Seq Number: 3124470

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	261	4.97	mg/kg	04.29.2020 03:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 04.28.2020 16:00 Basis: Wet Weight
 Seq Number: 3124486

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.29.2020 01:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.29.2020 01:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.29.2020 01:56	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.29.2020 01:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	04.29.2020 01:56	
o-Terphenyl	84-15-1	84	%	70-130	04.29.2020 01:56	



Certificate of Analytical Results 659899

Etech Environmental & Safety Solution, Inc, Midland, TX

Apsen 32 SL Com #001

Sample Id: **SW1B**
Lab Sample Id: 659899-009

Matrix: Soil
Date Collected: 04.27.2020 00:00

Date Received: 04.28.2020 11:20
Sample Depth: 6 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3124469

Prep Method: SW5035A

% Moisture:

Date Prep: 04.28.2020 16:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.29.2020 00:03	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.29.2020 00:03	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.29.2020 00:03	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.29.2020 00:03	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.29.2020 00:03	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.29.2020 00:03	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.29.2020 00:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	04.29.2020 00:03		
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.29.2020 00:03		



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

Apsen 32 SL Com #001

Analytical Method: Chloride by EPA 300

Seq Number: 3124470

MB Sample Id: 7702260-1-BLK

Matrix: Solid

LCS Sample Id: 7702260-1-BKS

Prep Method: E300P

Date Prep: 04.28.2020

LCSD Sample Id: 7702260-1-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	246	98	233	93	90-110	5	20	mg/kg	04.29.2020 01:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3124470

Parent Sample Id: 659899-001

Matrix: Soil

MS Sample Id: 659899-001 S

Prep Method: E300P

Date Prep: 04.28.2020

MSD Sample Id: 659899-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	177	250	415	95	420	97	90-110	1	20	mg/kg	04.29.2020 02:12	

Analytical Method: Chloride by EPA 300

Seq Number: 3124470

Parent Sample Id: 659915-043

Matrix: Soil

MS Sample Id: 659915-043 S

Prep Method: E300P

Date Prep: 04.28.2020

MSD Sample Id: 659915-043 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	318	252	594	110	561	96	90-110	6	20	mg/kg	04.29.2020 03:25	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124486

MB Sample Id: 7702250-1-BLK

Matrix: Solid

LCS Sample Id: 7702250-1-BKS

Prep Method: SW8015P

Date Prep: 04.28.2020

LCSD Sample Id: 7702250-1-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	927	93	926	93	70-130	0	20	mg/kg	04.28.2020 21:17	
Diesel Range Organics (DRO)	<50.0	1000	1000	100	999	100	70-130	0	20	mg/kg	04.28.2020 21:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	76		93		97		70-130	%	04.28.2020 21:17
o-Terphenyl	79		89		90		70-130	%	04.28.2020 21:17

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124486

Matrix: Solid

MB Sample Id: 7702250-1-BLK

Prep Method: SW8015P

Date Prep: 04.28.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.28.2020 20:58	

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

Apsen 32 SL Com #001

Analytical Method: TPH by SW8015 Mod

Seq Number: 3124486

Parent Sample Id: 659915-041

Matrix: Soil

MS Sample Id: 659915-041 S

Prep Method: SW8015P

Date Prep: 04.28.2020

MSD Sample Id: 659915-041 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)	<50.0	1000	947	95	1090	109	70-130	14	20	mg/kg	04.28.2020 22:12	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1180	118	70-130	14	20	mg/kg	04.28.2020 22:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	97		110		70-130	%	04.28.2020 22:12
o-Terphenyl	88		98		70-130	%	04.28.2020 22:12

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124469

MB Sample Id: 7702281-1-BLK

Matrix: Solid

LCS Sample Id: 7702281-1-BKS

Prep Method: SW5035A

Date Prep: 04.28.2020

LCSD Sample Id: 7702281-1-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	0.0891	89	0.0847	85	70-130	5	35	mg/kg	04.28.2020 18:44	
Toluene	<0.00200	0.100	0.0942	94	0.0878	88	70-130	7	35	mg/kg	04.28.2020 18:44	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0924	92	70-130	9	35	mg/kg	04.28.2020 18:44	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.187	94	70-130	8	35	mg/kg	04.28.2020 18:44	
o-Xylene	<0.00200	0.100	0.100	100	0.0928	93	70-130	7	35	mg/kg	04.28.2020 18:44	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	85		101		99		70-130	%	04.28.2020 18:44
4-Bromofluorobenzene	56	**	103		100		70-130	%	04.28.2020 18:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124476

MB Sample Id: 7702285-1-BLK

Matrix: Solid

LCS Sample Id: 7702285-1-BKS

Prep Method: SW5035A

Date Prep: 04.28.2020

LCSD Sample Id: 7702285-1-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	0.0997	100	0.0963	96	70-130	3	35	mg/kg	04.29.2020 02:52	
Toluene	<0.00200	0.100	0.0923	92	0.0883	88	70-130	4	35	mg/kg	04.29.2020 02:52	
Ethylbenzene	<0.00200	0.100	0.0901	90	0.0867	87	70-130	4	35	mg/kg	04.29.2020 02:52	
m,p-Xylenes	<0.00400	0.200	0.174	87	0.168	84	70-130	4	35	mg/kg	04.29.2020 02:52	
o-Xylene	<0.00200	0.100	0.0913	91	0.0883	88	70-130	3	35	mg/kg	04.29.2020 02:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		102		102		70-130	%	04.29.2020 02:52
4-Bromofluorobenzene	97		99		100		70-130	%	04.29.2020 02:52

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

Apsen 32 SL Com #001

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124469

Parent Sample Id: 659356-004

Matrix: Soil

MS Sample Id: 659356-004 S

Prep Method: SW5035A

Date Prep: 04.28.2020

MSD Sample Id: 659356-004 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	0.0646	65	0.0758	76	70-130	16	35	mg/kg	04.28.2020 19:24	X
Toluene	0.000990	0.0996	0.0753	75	0.0859	85	70-130	13	35	mg/kg	04.28.2020 19:24	
Ethylbenzene	0.000931	0.0996	0.0785	78	0.0901	90	70-130	14	35	mg/kg	04.28.2020 19:24	
m,p-Xylenes	<0.00398	0.199	0.158	79	0.184	92	70-130	15	35	mg/kg	04.28.2020 19:24	
o-Xylene	0.00108	0.0996	0.0774	77	0.0891	88	70-130	14	35	mg/kg	04.28.2020 19:24	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	04.28.2020 19:24
4-Bromofluorobenzene	98		103		70-130	%	04.28.2020 19:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3124476

Parent Sample Id: 659726-039

Matrix: Soil

MS Sample Id: 659726-039 S

Prep Method: SW5035A

Date Prep: 04.28.2020

MSD Sample Id: 659726-039 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	0.0656	66	0.0628	63	70-130	4	35	mg/kg	04.29.2020 03:33	X
Toluene	<0.00200	0.100	0.0614	61	0.0610	61	70-130	1	35	mg/kg	04.29.2020 03:33	X
Ethylbenzene	<0.00200	0.100	0.0616	62	0.0623	63	70-130	1	35	mg/kg	04.29.2020 03:33	X
m,p-Xylenes	<0.00400	0.200	0.120	60	0.123	62	70-130	2	35	mg/kg	04.29.2020 03:33	X
o-Xylene	<0.00200	0.100	0.0634	63	0.0660	66	70-130	4	35	mg/kg	04.29.2020 03:33	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		103		70-130	%	04.29.2020 03:33
4-Bromofluorobenzene	103		109		70-130	%	04.29.2020 03:33

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

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

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

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-6440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1286
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 335-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800

Work Order No. 1059899

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

www.xenon.com		Page _____ of _____
Work Order Comments		
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>		
State of Project: _____		
Reporting Level <input type="checkbox"/>	Level II <input type="checkbox"/>	PST/US <input type="checkbox"/> TRR <input type="checkbox"/> Level I <input type="checkbox"/>
Deliverables: EDD <input type="checkbox"/>	ADAPT <input type="checkbox"/>	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	SiO ₂	Na	Sr	Ti	Sn	U	Zn
<i>Circle Method(s) and Metal(s) to be analyzed</i>		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 \$3 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

0.3

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Heidi Silva</i>	<i>Manicuz Carrillo</i>	4.27.20	2 <i>Manicuz Carrillo</i>	<i>[Signature]</i>	4/28/20
3			4		
5			6		1/29



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.28.2020 11.20.00 AM

Work Order #: 659899

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	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: 04.28.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.28.2020



Certificate of Analysis Summary 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 St. Com #001

Project Id: 11982
Contact: PM
Project Location: Eddy County, NM

Date Received in Lab: Fri 04.24.2020 11:25
Report Date: 05.01.2020 12:45
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659719-001	659719-002	659719-003	659719-004	659719-005	659719-006
	<i>Field Id:</i>	WW1 220	WW2 220	SW1 1408	SW2 2308	SW3 2324	NW3 @ 3' 432
	<i>Depth:</i>	3- ft	3- ft	3- ft	3- ft	3- ft	3- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	04.23.2020 00:00	04.23.2020 00:00	04.23.2020 00:00	04.23.2020 00:00	04.23.2020 00:00	04.23.2020 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 08:13	05.01.2020 08:37	05.01.2020 03:23	05.01.2020 03:47	05.01.2020 04:12	05.01.2020 09:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00908 0.0201	<0.00794 0.0176	<0.00906 0.0200	<0.00854 0.0189	<0.00828 0.0183	<0.00775 0.0172
Toluene		<0.00470 0.0201	<0.00411 0.0176	<0.00469 0.0200	<0.00442 0.0189	<0.00429 0.0183	<0.00401 0.0172
Ethylbenzene		<0.00618 0.0201	<0.00541 0.0176	<0.00617 0.0200	<0.00582 0.0189	<0.00564 0.0183	<0.00528 0.0172
m,p-Xylenes		<0.00685 0.0402	<0.00599 0.0351	<0.00683 0.0401	<0.00645 0.0378	<0.00625 0.0366	<0.00585 0.0343
o-Xylene		<0.00685 0.0201	<0.00599 0.0176	<0.00683 0.0200	<0.00645 0.0189	<0.00625 0.0183	<0.00585 0.0172
Total Xylenes		<0.00685 0.0201	<0.00599 0.0176	<0.00683 0.0200	<0.00645 0.0189	<0.00625 0.0183	<0.00585 0.0172
Total BTEX		<0.00470 0.0201	<0.00411 0.0176	<0.00469 0.0200	<0.00442 0.0189	<0.00429 0.0183	<0.00401 0.0172
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	04.27.2020 08:15	04.27.2020 08:15
	<i>Analyzed:</i>	04.25.2020 14:38	04.25.2020 14:45	04.25.2020 14:52	04.25.2020 14:59	04.27.2020 09:02	04.27.2020 08:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		20.3 5.03	25.6 5.00	1540 24.8	3780 25.0	4230 25.1	455 4.99
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 18:11	04.25.2020 18:31	04.25.2020 18:53	04.25.2020 19:14	04.25.2020 19:35	04.25.2020 19:57
	<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	146 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	146 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 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 St. Com #001

Project Id: 11982
Contact: PM
Project Location: Eddy County, NM

Date Received in Lab: Fri 04.24.2020 11:25
Report Date: 05.01.2020 12:45
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 659719-007 Field Id: FL9 @ 3' 528 Depth: 3- ft Matrix: SOIL Sampled: 04.23.2020 00:00					
BTEX by EPA 8021B SUB: T104704219-19-21	Extracted: 04.30.2020 10:00 Analyzed: 05.01.2020 05:47 Units/RL: mg/kg RL					
Benzene	<0.00863 0.0191					
Toluene	<0.00447 0.0191					
Ethylbenzene	<0.00588 0.0191					
m,p-Xylenes	<0.00651 0.0382					
o-Xylene	<0.00651 0.0191					
Total Xylenes	<0.00651 0.0191					
Total BTEX	<0.00447 0.0191					
Chloride by EPA 300	Extracted: 04.27.2020 08:15 Analyzed: 04.27.2020 09:08 Units/RL: mg/kg RL					
Chloride	465 4.97					
TPH By SW8015 Mod	Extracted: 04.25.2020 11:00 Analyzed: 04.25.2020 20:18 Units/RL: mg/kg RL					
Gasoline Range Hydrocarbons (GRO)	<49.9 49.9					
Diesel Range Organics (DRO)	121 49.9					
Motor Oil Range Hydrocarbons (MRO)	<49.9 49.9					
Total TPH	121 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 659719

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Aspen 32 St. Com #001

11982

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): **659719**

Aspen 32 St. Com #001

Project Address: Eddy County, NM

PM :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 659719. 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. 659719 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 659719****Etech Environmental & Safety Solution, Inc, Midland, TX**

Aspen 32 St. Com #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WW1 220	S	04.23.2020 00:00	3 ft	659719-001
WW2 220	S	04.23.2020 00:00	3 ft	659719-002
SW1 1408	S	04.23.2020 00:00	3 ft	659719-003
SW2 2308	S	04.23.2020 00:00	3 ft	659719-004
SW3 2324	S	04.23.2020 00:00	3 ft	659719-005
NW3 @ 3' 432	S	04.23.2020 00:00	3 ft	659719-006
FL9 @ 3' 528	S	04.23.2020 00:00	3 ft	659719-007

**CASE NARRATIVE***Client Name: Etech Environmental & Safety Solution, Inc**Project Name: Aspen 32 St. Com #001*

Project ID: 11982
Work Order Number(s): 659719

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 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **WW1 220**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-001

Date Collected: 04.23.2020 00:00

Sample Depth: 3 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	20.3	5.03	0.864	mg/kg	04.25.2020 14:38		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	<50.0	50.0	15.0	mg/kg	04.25.2020 18:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.25.2020 18:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.25.2020 18:11	U	1
Total TPH	PHC635	<50.0	50.0	15.0	mg/kg	04.25.2020 18:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	04.25.2020 18:11	
o-Terphenyl	84-15-1	98	%	70-130	04.25.2020 18:11	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **WW1 220**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-001

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

Seq Number: 3124758

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00908	0.0201	0.00908	mg/kg	05.01.2020 08:13	U	1
Toluene	108-88-3	<0.00470	0.0201	0.00470	mg/kg	05.01.2020 08:13	U	1
Ethylbenzene	100-41-4	<0.00618	0.0201	0.00618	mg/kg	05.01.2020 08:13	U	1
m,p-Xylenes	179601-23-1	<0.00685	0.0402	0.00685	mg/kg	05.01.2020 08:13	U	1
o-Xylene	95-47-6	<0.00685	0.0201	0.00685	mg/kg	05.01.2020 08:13	U	1
Total Xylenes	1330-20-7	<0.00685	0.0201	0.00685	mg/kg	05.01.2020 08:13	U	1
Total BTEX		<0.00470	0.0201	0.00470	mg/kg	05.01.2020 08:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	77	%	68-120	05.01.2020 08:13	
a,a,a-Trifluorotoluene	98-08-8	86	%	71-121	05.01.2020 08:13	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **WW2 220**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-002

Date Collected: 04.23.2020 00:00

Sample Depth: 3 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	25.6	5.00	0.858	mg/kg	04.25.2020 14:45		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 18:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	04.25.2020 18:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 18:31	U	1
Total TPH	PHC635	<49.9	49.9	15.0	mg/kg	04.25.2020 18:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	04.25.2020 18:31	
o-Terphenyl	84-15-1	83	%	70-130	04.25.2020 18:31	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **WW2 220**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-002

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

Seq Number: 3124758

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00794	0.0176	0.00794	mg/kg	05.01.2020 08:37	U	1
Toluene	108-88-3	<0.00411	0.0176	0.00411	mg/kg	05.01.2020 08:37	U	1
Ethylbenzene	100-41-4	<0.00541	0.0176	0.00541	mg/kg	05.01.2020 08:37	U	1
m,p-Xylenes	179601-23-1	<0.00599	0.0351	0.00599	mg/kg	05.01.2020 08:37	U	1
o-Xylene	95-47-6	<0.00599	0.0176	0.00599	mg/kg	05.01.2020 08:37	U	1
Total Xylenes	1330-20-7	<0.00599	0.0176	0.00599	mg/kg	05.01.2020 08:37	U	1
Total BTEX		<0.00411	0.0176	0.00411	mg/kg	05.01.2020 08:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	78	%	68-120	05.01.2020 08:37	
a,a,a-Trifluorotoluene	98-08-8	86	%	71-121	05.01.2020 08:37	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **SW1 1408**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-003

Date Collected: 04.23.2020 00:00

Sample Depth: 3 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	1540	24.8	4.26	mg/kg	04.25.2020 14:52		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 18:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	15.0	mg/kg	04.25.2020 18:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 18:53	U	1
Total TPH	PHC635	<49.9	49.9	15.0	mg/kg	04.25.2020 18:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	04.25.2020 18:53	
o-Terphenyl	84-15-1	98	%	70-130	04.25.2020 18:53	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **SW1 1408**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-003

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

Seq Number: 3124758

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00906	0.0200	0.00906	mg/kg	05.01.2020 03:23	U	1
Toluene	108-88-3	<0.00469	0.0200	0.00469	mg/kg	05.01.2020 03:23	U	1
Ethylbenzene	100-41-4	<0.00617	0.0200	0.00617	mg/kg	05.01.2020 03:23	U	1
m,p-Xylenes	179601-23-1	<0.00683	0.0401	0.00683	mg/kg	05.01.2020 03:23	U	1
o-Xylene	95-47-6	<0.00683	0.0200	0.00683	mg/kg	05.01.2020 03:23	U	1
Total Xylenes	1330-20-7	<0.00683	0.0200	0.00683	mg/kg	05.01.2020 03:23	U	1
Total BTEX		<0.00469	0.0200	0.00469	mg/kg	05.01.2020 03:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	68-120	05.01.2020 03:23	
a,a,a-Trifluorotoluene	98-08-8	96	%	71-121	05.01.2020 03:23	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **SW2 2308**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-004

Date Collected: 04.23.2020 00:00

Sample Depth: 3 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	3780	25.0	4.28	mg/kg	04.25.2020 14:59		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 19:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.25.2020 19:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.25.2020 19:14	U	1
Total TPH	PHC635	<50.0	50.0	15.0	mg/kg	04.25.2020 19:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-130	04.25.2020 19:14	
o-Terphenyl	84-15-1	88	%	70-130	04.25.2020 19:14	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **SW2 2308**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-004

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

Seq Number: 3124758

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00854	0.0189	0.00854	mg/kg	05.01.2020 03:47	U	1
Toluene	108-88-3	<0.00442	0.0189	0.00442	mg/kg	05.01.2020 03:47	U	1
Ethylbenzene	100-41-4	<0.00582	0.0189	0.00582	mg/kg	05.01.2020 03:47	U	1
m,p-Xylenes	179601-23-1	<0.00645	0.0378	0.00645	mg/kg	05.01.2020 03:47	U	1
o-Xylene	95-47-6	<0.00645	0.0189	0.00645	mg/kg	05.01.2020 03:47	U	1
Total Xylenes	1330-20-7	<0.00645	0.0189	0.00645	mg/kg	05.01.2020 03:47	U	1
Total BTEX		<0.00442	0.0189	0.00442	mg/kg	05.01.2020 03:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	87	%	68-120	05.01.2020 03:47	
a,a,a-Trifluorotoluene	98-08-8	88	%	71-121	05.01.2020 03:47	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **SW3 2324**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-005

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.27.2020 08:15

Basis: Wet Weight

Seq Number: 3124293

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4230	25.1	4.30	mg/kg	04.27.2020 09:02		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 19:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	15.0	mg/kg	04.25.2020 19:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	15.0	mg/kg	04.25.2020 19:35	U	1
Total TPH	PHC635	<50.0	50.0	15.0	mg/kg	04.25.2020 19:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	04.25.2020 19:35	
o-Terphenyl	84-15-1	96	%	70-130	04.25.2020 19:35	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **SW3 2324**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-005

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

Seq Number: 3124758

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00828	0.0183	0.00828	mg/kg	05.01.2020 04:12	U	1
Toluene	108-88-3	<0.00429	0.0183	0.00429	mg/kg	05.01.2020 04:12	U	1
Ethylbenzene	100-41-4	<0.00564	0.0183	0.00564	mg/kg	05.01.2020 04:12	U	1
m,p-Xylenes	179601-23-1	<0.00625	0.0366	0.00625	mg/kg	05.01.2020 04:12	U	1
o-Xylene	95-47-6	<0.00625	0.0183	0.00625	mg/kg	05.01.2020 04:12	U	1
Total Xylenes	1330-20-7	<0.00625	0.0183	0.00625	mg/kg	05.01.2020 04:12	U	1
Total BTEX		<0.00429	0.0183	0.00429	mg/kg	05.01.2020 04:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	68-120	05.01.2020 04:12	
a,a,a-Trifluorotoluene	98-08-8	93	%	71-121	05.01.2020 04:12	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **NW3 @ 3' 432**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-006

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.27.2020 08:15

Basis: Wet Weight

Seq Number: 3124293

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	455	4.99	0.857	mg/kg	04.27.2020 08:47		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 19:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	146	49.9	15.0	mg/kg	04.25.2020 19:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 19:57	U	1
Total TPH	PHC635	146	49.9	15.0	mg/kg	04.25.2020 19:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	04.25.2020 19:57	
o-Terphenyl	84-15-1	93	%	70-130	04.25.2020 19:57	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: NW3 @ 3' 432

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-006

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

Seq Number: 3124758

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00775	0.0172	0.00775	mg/kg	05.01.2020 09:01	U	1
Toluene	108-88-3	<0.00401	0.0172	0.00401	mg/kg	05.01.2020 09:01	U	1
Ethylbenzene	100-41-4	<0.00528	0.0172	0.00528	mg/kg	05.01.2020 09:01	U	1
m,p-Xylenes	179601-23-1	<0.00585	0.0343	0.00585	mg/kg	05.01.2020 09:01	U	1
o-Xylene	95-47-6	<0.00585	0.0172	0.00585	mg/kg	05.01.2020 09:01	U	1
Total Xylenes	1330-20-7	<0.00585	0.0172	0.00585	mg/kg	05.01.2020 09:01	U	1
Total BTEX		<0.00401	0.0172	0.00401	mg/kg	05.01.2020 09:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	68-120	05.01.2020 09:01	
a,a,a-Trifluorotoluene	98-08-8	92	%	71-121	05.01.2020 09:01	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **FL9 @ 3' 528**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-007

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.27.2020 08:15

Basis: Wet Weight

Seq Number: 3124293

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	465	4.97	0.853	mg/kg	04.27.2020 09:08		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 20:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	121	49.9	15.0	mg/kg	04.25.2020 20:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	15.0	mg/kg	04.25.2020 20:18	U	1
Total TPH	PHC635	121	49.9	15.0	mg/kg	04.25.2020 20:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	04.25.2020 20:18	
o-Terphenyl	84-15-1	94	%	70-130	04.25.2020 20:18	



Certificate of Analytical Results 659719

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 St. Com #001

Sample Id: **FL9 @ 3' 528**

Matrix: Soil

Date Received: 04.24.2020 11:25

Lab Sample Id: 659719-007

Date Collected: 04.23.2020 00:00

Sample Depth: 3 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 04.30.2020 10:00

Basis: Wet Weight

Seq Number: 3124758

SUB: T104704219-19-21

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00863	0.0191	0.00863	mg/kg	05.01.2020 05:47	U	1
Toluene	108-88-3	<0.00447	0.0191	0.00447	mg/kg	05.01.2020 05:47	U	1
Ethylbenzene	100-41-4	<0.00588	0.0191	0.00588	mg/kg	05.01.2020 05:47	U	1
m,p-Xylenes	179601-23-1	<0.00651	0.0382	0.00651	mg/kg	05.01.2020 05:47	U	1
o-Xylene	95-47-6	<0.00651	0.0191	0.00651	mg/kg	05.01.2020 05:47	U	1
Total Xylenes	1330-20-7	<0.00651	0.0191	0.00651	mg/kg	05.01.2020 05:47	U	1
Total BTEX		<0.00447	0.0191	0.00447	mg/kg	05.01.2020 05:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	83	%	68-120	05.01.2020 05:47	
a,a,a-Trifluorotoluene	98-08-8	86	%	71-121	05.01.2020 05:47	



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

Aspen 32 St. Com #001

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: 3124293

MB Sample Id: 7702110-1-BLK

Matrix: Solid

LCS Sample Id: 7702110-1-BKS

Prep Method: E300P

Date Prep: 04.27.2020

LCSD Sample Id: 7702110-1-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	229	92	233	93	90-110	2	20	mg/kg	04.27.2020 08:36	

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: Chloride by EPA 300

Seq Number: 3124293

Parent Sample Id: 659719-006

Matrix: Soil

MS Sample Id: 659719-006 S

Prep Method: E300P

Date Prep: 04.27.2020

MSD Sample Id: 659719-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	455	250	706	100	696	96	90-110	1	20	mg/kg	04.28.2020 04:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3124293

Parent Sample Id: 659730-003

Matrix: Soil

MS Sample Id: 659730-003 S

Prep Method: E300P

Date Prep: 04.27.2020

MSD Sample Id: 659730-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	52.3	249	286	94	294	97	90-110	3	20	mg/kg	04.27.2020 10:06	

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

Aspen 32 St. Com #001

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

Prep Method: SW8015P

Date Prep: 04.25.2020

MB Sample Id: 7702067-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.25.2020 11:28	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3124197

Matrix: Soil

Prep Method: SW8015P

Date Prep: 04.25.2020

Parent Sample Id: 659717-003

MS Sample Id: 659717-003 S

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

Matrix: Solid

Prep Method: SW5035A

Date Prep: 04.30.2020

MB Sample Id: 7702424-1-BLK

LCS Sample Id: 7702424-1-BKS

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

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

Aspen 32 St. Com #001

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:

V59719

www.xenco.com Page of

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elect Environmental & Safety	Company Name:	Grizzley
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lawton, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@electenvy.com + Client

Project Name:	Aspen 32 St. Com. Road	Turn Around	
Project Number:	11982	Route:	<input checked="" type="checkbox"/>
Project Location:	Edley County NM	Rush:	<input type="checkbox"/>
Sampler's Name:	Heater L. Allen	Due Date:	

PO #:		ANALYSIS REQUEST	
SAMPLE RECEIPT	Temp Blank:	Yes	No
Temperature (°C):	Wet Ice:	Yes	No
Received In tact:	Thermometer:	Yes	No
Cooler Custody Seals:	Correction Factor:	Yes	No
Sample Custody Seals:	Total Containers:	Yes	No

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TRH Modified Ext	TRH TX1005	TRH	Preservative Codes
WU1 220	Soil	4/23/20		3'	1						HN
WU2 220	Soil	4/23/20		3'	1						H2SO4: H2
WU1 1408	Soil	4/23/20		3'	1						HCL: HL
WU2 2324	Soil	4/23/20		3'	1						None: NO
WU3 2324	Soil	4/23/20		3'	1						NaOH: Na
WU3 2324	Soil	4/23/20		3'	1						MeOH: Me
WU3 2324	Soil	4/23/20		3'	1						Zn Acetate+ NaOH: Zn

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

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
Heater L. Allen	Rebecca Henderson	4/23/20	Rebecca Henderson	Heater L. Allen	4/23/20

Inter-Office Shipment

IOS Number : **62799**

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
659719-001	S	WW1 220	04.23.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.07.2020	JKR	BR4FBZ BZ BZME EBZ	
659719-002	S	WW2 220	04.23.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.07.2020	JKR	BR4FBZ BZ BZME EBZ	
659719-003	S	SW1 1408	04.23.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.07.2020	JKR	BR4FBZ BZ BZME EBZ	
659719-004	S	SW2 2308	04.23.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.07.2020	JKR	BR4FBZ BZ BZME EBZ	
659719-005	S	SW3 2324	04.23.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.07.2020	JKR	BR4FBZ BZ BZME EBZ	
659719-006	S	NW3 @ 3' 432	04.23.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.07.2020	JKR	BR4FBZ BZ BZME EBZ	
659719-007	S	FL9 @ 3' 528	04.23.2020 00:00	SW8021B	BTEX by EPA 8021B	04.30.2020	05.07.2020	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



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Lubbock

IOS #: 62799

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 03.56 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 #:** 659719**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 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 State Com #001

Project Id: 11982
Contact: PM
Project Location: Eddy Co,NM

Date Received in Lab: Wed 04.22.2020 11:05
Report Date: 04.23.2020 17:06
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659440-001	659440-002	659440-003	659440-004	659440-005	
	<i>Field Id:</i>	FL4 @ 4'	FL5 @ 4'	FL6 @ 1'	FL7 @ 1'	FL8 @ 1'	
	<i>Depth:</i>	4- ft	4- ft	1- ft	1- ft	1- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	04.21.2020 00:00	04.21.2020 00:00	04.21.2020 00:00	04.21.2020 00:00	04.21.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	04.22.2020 16:00	04.22.2020 16:00	04.22.2020 16:00	04.22.2020 16:00	04.22.2020 16:00	
	<i>Analyzed:</i>	04.22.2020 19:13	04.22.2020 19:33	04.22.2020 19:54	04.22.2020 20:14	04.22.2020 20:34	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
m,p-Xylenes		<0.00398 0.00398	<0.00403 0.00403	<0.00398 0.00398	<0.00399 0.00399	<0.00396 0.00396	
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	
Chloride by EPA 300	<i>Extracted:</i>	04.22.2020 14:10	04.22.2020 14:10	04.22.2020 14:10	04.22.2020 14:10	04.22.2020 14:10	
	<i>Analyzed:</i>	04.23.2020 12:01	04.23.2020 12:06	04.23.2020 12:12	04.23.2020 12:17	04.23.2020 12:33	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		1300 24.9	1710 24.8	2250 25.2	1350 25.0	2830 25.1	
TPH By SW8015 Mod	<i>Extracted:</i>	04.22.2020 14:00	04.22.2020 14:00	04.22.2020 14:00	04.22.2020 14:00	04.22.2020 14:00	
	<i>Analyzed:</i>	04.22.2020 18:20	04.22.2020 18:41	04.22.2020 19:03	04.22.2020 19:24	04.22.2020 19:45	
	<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	<49.9 49.9	<49.8 49.8	
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 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 659440

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

Aspen 32 State Com #001

11982

04.23.2020

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)



04.23.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **659440**

Aspen 32 State Com #001

Project Address: Eddy Co,NM

PM :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 659440. 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. 659440 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 659440****Etech Environmental & Safety Solution, Inc, Midland, TX**

Aspen 32 State Com #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL4 @ 4'	S	04.21.2020 00:00	4 ft	659440-001
FL5 @ 4'	S	04.21.2020 00:00	4 ft	659440-002
FL6 @ 1'	S	04.21.2020 00:00	1 ft	659440-003
FL7 @ 1'	S	04.21.2020 00:00	1 ft	659440-004
FL8 @ 1'	S	04.21.2020 00:00	1 ft	659440-005



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Aspen 32 State Com #001

Project ID: 11982
Work Order Number(s): 659440

Report Date: 04.23.2020
Date Received: 04.22.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL4 @ 4'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-001

Date Collected: 04.21.2020 00:00

Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.22.2020 14:10

Basis: Wet Weight

Seq Number: 3123933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1300	24.9	mg/kg	04.23.2020 12:01		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.22.2020 14:00

Basis: Wet Weight

Seq Number: 3123892

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.22.2020 18:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.22.2020 18:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.22.2020 18:20	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.22.2020 18:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	04.22.2020 18:20	
o-Terphenyl	84-15-1	81	%	70-130	04.22.2020 18:20	



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL4 @ 4'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-001

Date Collected: 04.21.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 16:00

Basis: Wet Weight

Seq Number: 3123941

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.22.2020 19:13	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.22.2020 19:13	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.22.2020 19:13	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.22.2020 19:13	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.22.2020 19:13	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.22.2020 19:13	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.22.2020 19:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.22.2020 19:13		
4-Bromofluorobenzene	460-00-4	111	%	70-130	04.22.2020 19:13		



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL5 @ 4'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-002

Date Collected: 04.21.2020 00:00

Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.22.2020 14:10

Basis: Wet Weight

Seq Number: 3123933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1710	24.8	mg/kg	04.23.2020 12:06		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.22.2020 14:00

Basis: Wet Weight

Seq Number: 3123892

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.22.2020 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.22.2020 18:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.22.2020 18:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.22.2020 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	04.22.2020 18:41	
o-Terphenyl	84-15-1	79	%	70-130	04.22.2020 18:41	



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL5 @ 4'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-002

Date Collected: 04.21.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 16:00

Basis: Wet Weight

Seq Number: 3123941

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	04.22.2020 19:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	04.22.2020 19:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	04.22.2020 19:33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	04.22.2020 19:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	04.22.2020 19:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	04.22.2020 19:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	04.22.2020 19:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	04.22.2020 19:33		
4-Bromofluorobenzene	460-00-4	108	%	70-130	04.22.2020 19:33		



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL6 @ 1'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-003

Date Collected: 04.21.2020 00:00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.22.2020 14:10

Basis: Wet Weight

Seq Number: 3123933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2250	25.2	mg/kg	04.23.2020 12:12		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.22.2020 14:00

Basis: Wet Weight

Seq Number: 3123892

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.22.2020 19:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.22.2020 19:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.22.2020 19:03	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.22.2020 19:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	04.22.2020 19:03	
o-Terphenyl	84-15-1	79	%	70-130	04.22.2020 19:03	



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL6 @ 1'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-003

Date Collected: 04.21.2020 00:00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 16:00

Basis: Wet Weight

Seq Number: 3123941

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	04.22.2020 19:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.22.2020 19:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.22.2020 19:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.22.2020 19:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.22.2020 19:54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.22.2020 19:54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.22.2020 19:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	04.22.2020 19:54		
4-Bromofluorobenzene	460-00-4	114	%	70-130	04.22.2020 19:54		



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL7 @ 1'**
Lab Sample Id: 659440-004

Matrix: Soil
Date Collected: 04.21.2020 00:00

Date Received: 04.22.2020 11:05
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3123933

Date Prep: 04.22.2020 14:10

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1350	25.0	mg/kg	04.23.2020 12:17		5

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123892

Date Prep: 04.22.2020 14:00

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	04.22.2020 19:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.22.2020 19:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.22.2020 19:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.22.2020 19:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	04.22.2020 19:24	
o-Terphenyl	84-15-1	80	%	70-130	04.22.2020 19:24	



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL7 @ 1'**
Lab Sample Id: 659440-004

Matrix: Soil
Date Collected: 04.21.2020 00:00

Date Received: 04.22.2020 11:05
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3123941

Prep Method: SW5035A

% Moisture:

Date Prep: 04.22.2020 16:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.22.2020 20:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.22.2020 20:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.22.2020 20:14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.22.2020 20:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.22.2020 20:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.22.2020 20:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.22.2020 20:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	04.22.2020 20:14		
4-Bromofluorobenzene	460-00-4	112	%	70-130	04.22.2020 20:14		



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL8 @ 1'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-005

Date Collected: 04.21.2020 00:00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 04.22.2020 14:10

Basis: Wet Weight

Seq Number: 3123933

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2830	25.1	mg/kg	04.23.2020 12:33		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.22.2020 14:00

Basis: Wet Weight

Seq Number: 3123892

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	04.22.2020 19:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	04.22.2020 19:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	04.22.2020 19:45	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	04.22.2020 19:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	04.22.2020 19:45	
o-Terphenyl	84-15-1	79	%	70-130	04.22.2020 19:45	



Certificate of Analytical Results 659440

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL8 @ 1'**

Matrix: Soil

Date Received: 04.22.2020 11:05

Lab Sample Id: 659440-005

Date Collected: 04.21.2020 00:00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.22.2020 16:00

Basis: Wet Weight

Seq Number: 3123941

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.22.2020 20:34	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.22.2020 20:34	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.22.2020 20:34	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	04.22.2020 20:34	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.22.2020 20:34	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.22.2020 20:34	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.22.2020 20:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	04.22.2020 20:34		
4-Bromofluorobenzene	460-00-4	109	%	70-130	04.22.2020 20:34		



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

Aspen 32 State Com #001

Analytical Method: Chloride by EPA 300

Seq Number: 3123933

MB Sample Id: 7701796-1-BLK

Matrix: Solid

LCS Sample Id: 7701796-1-BKS

Prep Method: E300P

Date Prep: 04.22.2020

LCSD Sample Id: 7701796-1-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	249	100	245	98	90-110	2	20	mg/kg	04.23.2020 11:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3123933

Parent Sample Id: 659506-001

Matrix: Soil

MS Sample Id: 659506-001 S

Prep Method: E300P

Date Prep: 04.22.2020

MSD Sample Id: 659506-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	348	253	625	109	596	98	90-110	5	20	mg/kg	04.23.2020 11:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3123933

Parent Sample Id: 659506-006

Matrix: Soil

MS Sample Id: 659506-006 S

Prep Method: E300P

Date Prep: 04.22.2020

MSD Sample Id: 659506-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	41.8	249	301	104	296	102	90-110	2	20	mg/kg	04.23.2020 13:04	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123892

MB Sample Id: 7701762-1-BLK

Matrix: Solid

LCS Sample Id: 7701762-1-BKS

Prep Method: SW8015P

Date Prep: 04.22.2020

LCSD Sample Id: 7701762-1-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	835	84	806	81	70-130	4	20	mg/kg	04.22.2020 11:15	
Diesel Range Organics (DRO)	<50.0	1000	877	88	823	82	70-130	6	20	mg/kg	04.22.2020 11:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		80		73		70-130	%	04.22.2020 11:15
o-Terphenyl	86		78		73		70-130	%	04.22.2020 11:15

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123892

Matrix: Solid

MB Sample Id: 7701762-1-BLK

Prep Method: SW8015P

Date Prep: 04.22.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.22.2020 10:54	

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



Etech Environmental & Safety Solution, Inc

Aspen 32 State Com #001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123892

Parent Sample Id: 659369-001

Matrix: Soil

MS Sample Id: 659369-001 S

Prep Method: SW8015P

Date Prep: 04.22.2020

MSD Sample Id: 659369-001 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	844	85	921	92	70-130	9	20	mg/kg	04.22.2020 12:19	
Diesel Range Organics (DRO)	<49.8	996	867	87	937	94	70-130	8	20	mg/kg	04.22.2020 12:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	85		93		70-130	%	04.22.2020 12:19
o-Terphenyl	87		94		70-130	%	04.22.2020 12:19

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123941

MB Sample Id: 7701907-1-BLK

Matrix: Solid

LCS Sample Id: 7701907-1-BKS

Prep Method: SW5035A

Date Prep: 04.22.2020

LCSD Sample Id: 7701907-1-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	0.0838	84	0.0924	92	70-130	10	35	mg/kg	04.22.2020 16:50	
Toluene	<0.00200	0.100	0.0816	82	0.0881	88	70-130	8	35	mg/kg	04.22.2020 16:50	
Ethylbenzene	<0.00200	0.100	0.0823	82	0.0882	88	70-130	7	35	mg/kg	04.22.2020 16:50	
m,p-Xylenes	<0.00400	0.200	0.160	80	0.172	86	70-130	7	35	mg/kg	04.22.2020 16:50	
o-Xylene	<0.00200	0.100	0.0834	83	0.0897	90	70-130	7	35	mg/kg	04.22.2020 16:50	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		100		103		70-130	%	04.22.2020 16:50
4-Bromofluorobenzene	105		98		99		70-130	%	04.22.2020 16:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123941

Parent Sample Id: 659440-001

Matrix: Soil

MS Sample Id: 659440-001 S

Prep Method: SW5035A

Date Prep: 04.22.2020

MSD Sample Id: 659440-001 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	0.0923	92	0.0909	92	70-130	2	35	mg/kg	04.22.2020 17:31	
Toluene	<0.00200	0.0998	0.0875	88	0.0858	87	70-130	2	35	mg/kg	04.22.2020 17:31	
Ethylbenzene	<0.00200	0.0998	0.0879	88	0.0866	87	70-130	1	35	mg/kg	04.22.2020 17:31	
m,p-Xylenes	<0.00399	0.200	0.171	86	0.168	85	70-130	2	35	mg/kg	04.22.2020 17:31	
o-Xylene	<0.00200	0.0998	0.0897	90	0.0878	89	70-130	2	35	mg/kg	04.22.2020 17:31	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		103		70-130	%	04.22.2020 17:31
4-Bromofluorobenzene	98		97		70-130	%	04.22.2020 17:31

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



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:

089440

www.xenco.com Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Etech Environmental	Company Name:	Grizzly
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lawton, NM	City, State ZIP:	
Phone:	432-466-4450	Email:	joel@etechenv.com, lance@etechenv.com

Work Order Comments Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project:	
Reporting Level: <input type="checkbox"/> Level I <input type="checkbox"/> Level II <input type="checkbox"/> PST/US <input type="checkbox"/> TRR <input type="checkbox"/> Level II <input type="checkbox"/>	Deliverables: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Aspen 32 State Coa #001	Turn Around	
Project Number:	11982	Routine:	<input type="checkbox"/>
Project Location:	Eddy Co. NM	Rush:	<input checked="" type="checkbox"/>
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Temperature (°C):	0.9/10.0	Thermometer ID:	29	
Received Inact:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor:		
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Containers:	203	
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	ANALYSIS REQUEST																Preservative Codes	Sample Comments
FL4041	Soil	4/21/20		4'	TRH																		
FL4041	Soil	4/21/20		4'	BTEX																		
FL4041	Soil	4/21/20		4'	Chlorides																		
FL7011	Soil	4/21/20		1'																			
FL7011	Soil	4/21/20		1'																			
FL8011	Soil	4/21/20		1'																			

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
		4/21/2020			4/21/2020

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 04.22.2020 11.05.00 AM

Work Order #: 659440

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: 04.22.2020

Checklist reviewed by:



Jessica Kramer

Date: 04.22.2020



Certificate of Analysis Summary 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 State Com #001

Project Id: 11982
Contact: Joel Lowry
Project Location: Ed Co, NM

Date Received in Lab: Fri 04.17.2020 11:15
Report Date: 04.22.2020 15:50
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	659139-001	659139-002	659139-003	659139-004		
	<i>Field Id:</i>	FL3 @ 4	SW1	NW1b	NW2b		
	<i>Depth:</i>	4- ft					
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	04.16.2020 00:00	04.16.2020 00:00	04.16.2020 00:00	04.16.2020 00:00		
BTEX by EPA 8021B	<i>Extracted:</i>	04.20.2020 15:45	04.20.2020 15:45	04.20.2020 15:45	04.20.2020 15:45		
	<i>Analyzed:</i>	04.20.2020 23:49	04.21.2020 01:08	04.21.2020 01:28	04.21.2020 01:48		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Benzene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
Toluene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
Ethylbenzene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
m,p-Xylenes		<0.00399 0.00399	<0.00397 0.00397	<0.00396 0.00396	<0.00399 0.00399		
o-Xylene		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
Total Xylenes		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
Total BTEX		<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<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		
	<i>Analyzed:</i>	04.17.2020 20:19	04.17.2020 20:25	04.17.2020 20:30	04.17.2020 20:35		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		2500 25.2	2720 25.1	5.33 5.00	<5.00 5.00		
TPH By SW8015 Mod	<i>Extracted:</i>	04.21.2020 16:00	04.21.2020 16:00	04.21.2020 16:00	04.21.2020 16:00		
	<i>Analyzed:</i>	04.22.2020 00:16	04.22.2020 01:12	04.22.2020 01:31	04.22.2020 01:50		
	<i>Units/RL:</i>	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		
Diesel Range Organics (DRO)		<50.0 50.0	890 50.0	<50.0 50.0	<49.9 49.9		
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	201 50.0	<50.0 50.0	<49.9 49.9		
Total TPH		<50.0 50.0	1090 50.0	<50.0 50.0	<49.9 49.9		

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 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 659139

for

Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

Aspen 32 State Com #001

11982

04.22.2020

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)



04.22.2020

Project Manager: **Joel Lowry**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: XENCO Report No(s): **659139**

Aspen 32 State Com #001

Project Address: Ed Co, NM

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) 659139. 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. 659139 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 659139****Etech Environmental & Safety Solution, Inc, Midland, TX**

Aspen 32 State Com #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL3 @ 4	S	04.16.2020 00:00	4 ft	659139-001
SW1	S	04.16.2020 00:00	N/A	659139-002
NW1b	S	04.16.2020 00:00	N/A	659139-003
NW2b	S	04.16.2020 00:00	N/A	659139-004



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Aspen 32 State Com #001

Project ID: 11982
Work Order Number(s): 659139

Report Date: 04.22.2020
Date Received: 04.17.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL3 @ 4**
Lab Sample Id: 659139-001

Matrix: Soil
Date Collected: 04.16.2020 00:00

Date Received: 04.17.2020 11:15
Sample Depth: 4 ft

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	2500	25.2	mg/kg	04.17.2020 20:19		5

Analytical Method: TPH By SW8015 Mod
Tech: DVM
Analyst: ARM
Seq Number: 3123736

Prep Method: SW8015P
% Moisture:
Date Prep: 04.21.2020 16:00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.22.2020 00:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.22.2020 00:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.22.2020 00:16	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.22.2020 00:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	04.22.2020 00:16	
o-Terphenyl	84-15-1	91	%	70-130	04.22.2020 00:16	



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL3 @ 4**
Lab Sample Id: 659139-001

Matrix: Soil
Date Collected: 04.16.2020 00:00

Date Received: 04.17.2020 11:15
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3123566

Prep Method: SW5030B

% Moisture:

Date Prep: 04.20.2020 15:45

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.20.2020 23:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.20.2020 23:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.20.2020 23:49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.20.2020 23:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.20.2020 23:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.20.2020 23:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.20.2020 23:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	04.20.2020 23:49		
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.20.2020 23:49		



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **SW1**
Lab Sample Id: 659139-002

Matrix: Soil
Date Collected: 04.16.2020 00:00

Date Received: 04.17.2020 11:15

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	2720	25.1	mg/kg	04.17.2020 20:25		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.21.2020 16:00

Basis: Wet Weight

Seq Number: 3123736

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.22.2020 01:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	890	50.0	mg/kg	04.22.2020 01:12		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	201	50.0	mg/kg	04.22.2020 01:12		1
Total TPH	PHC635	1090	50.0	mg/kg	04.22.2020 01:12		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	04.22.2020 01:12	
o-Terphenyl	84-15-1	111	%	70-130	04.22.2020 01:12	



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **SW1**
Lab Sample Id: 659139-002

Matrix: Soil
Date Collected: 04.16.2020 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 15:45

Basis: Wet Weight

Seq Number: 3123566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.21.2020 01:08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.21.2020 01:08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.21.2020 01:08	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	04.21.2020 01:08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.21.2020 01:08	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.21.2020 01:08	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.21.2020 01:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	04.21.2020 01:08		
4-Bromofluorobenzene	460-00-4	87	%	70-130	04.21.2020 01:08		



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **NW1b**
Lab Sample Id: 659139-003

Matrix: Soil
Date Collected: 04.16.2020 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	5.33	5.00	mg/kg	04.17.2020 20:30		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3123736

Prep Method: SW8015P

% Moisture:

Date Prep: 04.21.2020 16:00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	04.22.2020 01:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	04.22.2020 01:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	04.22.2020 01:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.22.2020 01:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	04.22.2020 01:31	
o-Terphenyl	84-15-1	94	%	70-130	04.22.2020 01:31	



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **NW1b**
Lab Sample Id: 659139-003

Matrix: Soil
Date Collected: 04.16.2020 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 15:45

Basis: Wet Weight

Seq Number: 3123566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	04.21.2020 01:28	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	04.21.2020 01:28	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	04.21.2020 01:28	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	04.21.2020 01:28	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	04.21.2020 01:28	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	04.21.2020 01:28	U	1
Total BTEX		<0.00198	0.00198	mg/kg	04.21.2020 01:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	04.21.2020 01:28		
4-Bromofluorobenzene	460-00-4	87	%	70-130	04.21.2020 01:28		



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **NW2b**
Lab Sample Id: 659139-004

Matrix: Soil
Date Collected: 04.16.2020 00:00

Date Received: 04.17.2020 11:15

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	<5.00	5.00	mg/kg	04.17.2020 20:35	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.21.2020 16:00

Basis: Wet Weight

Seq Number: 3123736

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	04.22.2020 01:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.22.2020 01:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.22.2020 01:50	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.22.2020 01:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	04.22.2020 01:50	
o-Terphenyl	84-15-1	96	%	70-130	04.22.2020 01:50	



Certificate of Analytical Results 659139

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **NW2b**
Lab Sample Id: 659139-004

Matrix: Soil
Date Collected: 04.16.2020 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 15:45

Basis: Wet Weight

Seq Number: 3123566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.21.2020 01:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.21.2020 01:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.21.2020 01:48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	04.21.2020 01:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.21.2020 01:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.21.2020 01:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.21.2020 01:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	04.21.2020 01:48		
1,4-Difluorobenzene	540-36-3	100	%	70-130	04.21.2020 01:48		



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

Aspen 32 State Com #001

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: 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

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123736

MB Sample Id: 7701713-1-BLK

Matrix: Solid

LCS Sample Id: 7701713-1-BKS

Prep Method: SW8015P

Date Prep: 04.21.2020

LCSD Sample Id: 7701713-1-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	874	87	907	91	70-130	4	20	mg/kg	04.21.2020 23:38	
Diesel Range Organics (DRO)	<50.0	1000	964	96	1000	100	70-130	4	20	mg/kg	04.21.2020 23:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		107		117		70-130	%	04.21.2020 23:38
o-Terphenyl	91		101		106		70-130	%	04.21.2020 23:38

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123736

Matrix: Solid

MB Sample Id: 7701713-1-BLK

Prep Method: SW8015P

Date Prep: 04.21.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	04.21.2020 23:20	

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



Etech Environmental & Safety Solution, Inc

Aspen 32 State Com #001

Analytical Method: TPH By SW8015 Mod

Seq Number: 3123736

Parent Sample Id: 659139-001

Matrix: Soil

MS Sample Id: 659139-001 S

Prep Method: SW8015P

Date Prep: 04.21.2020

MSD Sample Id: 659139-001 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	852	85	850	85	70-130	0	20	mg/kg	04.22.2020 00:34	
Diesel Range Organics (DRO)	<49.9	997	946	95	941	94	70-130	1	20	mg/kg	04.22.2020 00:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		100		70-130	%	04.22.2020 00:34
o-Terphenyl	94		93		70-130	%	04.22.2020 00:34

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123566

MB Sample Id: 7701648-1-BLK

Matrix: Solid

LCS Sample Id: 7701648-1-BKS

Prep Method: SW5030B

Date Prep: 04.20.2020

LCSD Sample Id: 7701648-1-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	0.0770	77	0.0730	73	70-130	5	35	mg/kg	04.20.2020 15:48	
Toluene	<0.00200	0.100	0.0890	89	0.0821	82	70-130	8	35	mg/kg	04.20.2020 15:48	
Ethylbenzene	<0.00200	0.100	0.0961	96	0.0878	88	70-130	9	35	mg/kg	04.20.2020 15:48	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.174	87	70-130	10	35	mg/kg	04.20.2020 15:48	
o-Xylene	<0.00200	0.100	0.0991	99	0.0905	91	70-130	9	35	mg/kg	04.20.2020 15:48	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		103		102		70-130	%	04.20.2020 15:48
4-Bromofluorobenzene	85		107		102		70-130	%	04.20.2020 15:48

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123566

Parent Sample Id: 659093-001

Matrix: Soil

MS Sample Id: 659093-001 S

Prep Method: SW5030B

Date Prep: 04.20.2020

MSD Sample Id: 659093-001 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	0.0996	0.0885	89	0.0835	84	70-130	6	35	mg/kg	04.20.2020 16:28	
Toluene	0.000604	0.0996	0.0966	96	0.0987	99	70-130	2	35	mg/kg	04.20.2020 16:28	
Ethylbenzene	0.000674	0.0996	0.0889	89	0.0993	99	70-130	11	35	mg/kg	04.20.2020 16:28	
m,p-Xylenes	0.00117	0.199	0.171	85	0.195	97	70-130	13	35	mg/kg	04.20.2020 16:28	
o-Xylene	0.000845	0.0996	0.0843	84	0.0954	95	70-130	12	35	mg/kg	04.20.2020 16:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		97		70-130	%	04.20.2020 16:28
4-Bromofluorobenzene	104		117		70-130	%	04.20.2020 16:28

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



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) 889-6701
 Atlanta, GA (770) 449-8800

Work Order No:

10591391

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Page 1 of 1

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Etech Environmental	Company Name:	Gigzley
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lowington, NM	City, State ZIP:	
Phone:	432-466-4450	Email:	joel@etechenv.com, lance@etechenv.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level I <input type="checkbox"/> Level II <input type="checkbox"/> PST/US <input type="checkbox"/> TRR <input type="checkbox"/> Level I <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

ANALYSIS REQUEST

Project Name:	Aspen 32 State Cont #402	Turn Around	
Project Number:	11982	Route:	<input checked="" type="checkbox"/>
Project Location:	Eddy Co, NM	Rush:	<input type="checkbox"/>
Sampler's Name:	Miguel Ramirez	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Temperature (°C):	5.6	Thermometer ID:	09
Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor:	0.3	
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Containers:		
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code
-----------------------	--------	--------------	--------------	-------	--

FL304	Soil	4.16.20		4'	TPH
SW1	Soil	4.16.20		-	BTEX
SW1B	Soil	4.16.20		-	CHLORIDES
NW2B	Soil	4.16.20		-	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	2	3	4	5	6
4/16/20 218	4/16/20 218	4/16/20 218	4/16/20 218	4/16/20 218	4/16/20 218

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 #: 659139

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)?	5.3
#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



Certificate of Analysis Summary 658969

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 State Com #001

Project Id: 11982
Contact: Joel Lowry
Project Location: Eddy Co, NM

Date Received in Lab: Thu 04.16.2020 10:40
Report Date: 04.20.2020 09:16
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 658969-001 Field Id: FL 2 @ 5' Depth: 5- ft Matrix: SOIL Sampled: 04.15.2020 00:00					
BTEX by EPA 8021B	Extracted: 04.16.2020 11:30 Analyzed: 04.16.2020 19:22 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: 04.16.2020 17:25 Analyzed: 04.16.2020 19:29 Units/RL: mg/kg RL					
Chloride	1340 25.1					
TPH By SW8015 Mod	Extracted: 04.16.2020 15:00 Analyzed: 04.17.2020 10:38 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					

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 658969

for

Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

Aspen 32 State Com #001

11982

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): **658969**

Aspen 32 State Com #001

Project Address: Eddy Co, NM

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) 658969. 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. 658969 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 658969

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL 2 @ 5'	S	04.15.2020 00:00	5 ft	658969-001



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Aspen 32 State Com #001

Project ID: 11982
Work Order Number(s): 658969

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

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

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, 658969-001.



Certificate of Analytical Results 658969

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL 2 @ 5'**

Matrix: Soil

Date Received: 04.16.2020 10:40

Lab Sample Id: 658969-001

Date Collected: 04.15.2020 00:00

Sample Depth: 5 ft

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	1340	25.1	mg/kg	04.16.2020 19:29		5

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 10:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	04.17.2020 10:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	04.17.2020 10:38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	04.17.2020 10:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	04.17.2020 10:38	
o-Terphenyl	84-15-1	85	%	70-130	04.17.2020 10:38	



Certificate of Analytical Results 658969

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL 2 @ 5'**

Matrix: Soil

Date Received: 04.16.2020 10:40

Lab Sample Id: 658969-001

Date Collected: 04.15.2020 00:00

Sample Depth: 5 ft

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 19:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	04.16.2020 19:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	04.16.2020 19:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	04.16.2020 19:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	04.16.2020 19:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	04.16.2020 19:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	04.16.2020 19:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	143	%	70-130	04.16.2020 19:22	**	
1,4-Difluorobenzene	540-36-3	108	%	70-130	04.16.2020 19:22		



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

Aspen 32 State Com #001

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

Aspen 32 State Com #001

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

Revised Date 10/14/19 Rev. 2019.7

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 #: 658969

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: 04.16.2020



Certificate of Analysis Summary 658817

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Aspen 32 State Com #001

Project Id: 11982
Contact: Joel Lowry
Project Location: Eddy County, NM

Date Received in Lab: Wed 04.15.2020 10:08
Report Date: 04.16.2020 14:38
Project Manager: Jessica Kramer

Analysis Requested	Lab Id: 658817-001 Field Id: FL1 @ 4' Depth: 4- ft Matrix: SOIL Sampled: 04.14.2020 00:00					
BTEX by EPA 8021B	Extracted: 04.15.2020 14:45 Analyzed: 04.15.2020 19:58 Units/RL: mg/kg RL					
Benzene	<0.00200 0.00200					
Toluene	<0.00200 0.00200					
Ethylbenzene	<0.00200 0.00200					
m,p-Xylenes	<0.00400 0.00400					
o-Xylene	<0.00200 0.00200					
Total Xylenes	<0.00200 0.00200					
Total BTEX	<0.00200 0.00200					
Chloride by EPA 300	Extracted: 04.15.2020 11:50 Analyzed: 04.15.2020 14:16 Units/RL: mg/kg RL					
Chloride	1060 25.0					
TPH by Texas1005	Extracted: 04.15.2020 16:00 Analyzed: 04.15.2020 22:56 Units/RL: mg/kg RL					
C6-C12 Gasoline Range Hydrocarbons	<50.0 50.0					
>C12-C28 Diesel Range Hydrocarbons	<50.0 50.0					
>C28-C35 Oil Range Hydrocarbons	<50.0 50.0					
Total TPH	<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 658817

for

Etech Environmental & Safety Solution, Inc

Project Manager: Joel Lowry

Aspen 32 State Com #001

11982

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): **658817**

Aspen 32 State Com #001

Project Address: Eddy County, NM

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) 658817. 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. 658817 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 658817

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FL1 @ 4'	S	04.14.2020 00:00	4 ft	658817-001



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: Aspen 32 State Com #001

Project ID: 11982
Work Order Number(s): 658817

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-3123169 BTEX by EPA 8021B

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



Certificate of Analytical Results 658817

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL1 @ 4'**

Matrix: Soil

Date Received: 04.15.2020 10:08

Lab Sample Id: 658817-001

Date Collected: 04.14.2020 00:00

Sample Depth: 4 ft

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	1060	25.0	mg/kg	04.15.2020 14:16		5

Analytical Method: TPH by Texas1005

Prep Method: TX1005P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 04.15.2020 16:00

Basis: Wet Weight

Seq Number: 3123196

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
C6-C12 Gasoline Range Hydrocarbons	PHC612	<50.0	50.0	mg/kg	04.15.2020 22:56	U	1
>C12-C28 Diesel Range Hydrocarbons	PHCG1228	<50.0	50.0	mg/kg	04.15.2020 22:56	U	1
>C28-C35 Oil Range Hydrocarbons	PHCG2835	<50.0	50.0	mg/kg	04.15.2020 22:56	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	04.15.2020 22:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
o-Terphenyl	84-15-1	124	%	70-130	04.15.2020 22:56	
1-Chlorooctane	111-85-3	102	%	70-130	04.15.2020 22:56	



Certificate of Analytical Results 658817

Etech Environmental & Safety Solution, Inc, Midland, TX

Aspen 32 State Com #001

Sample Id: **FL1 @ 4'**

Matrix: Soil

Date Received: 04.15.2020 10:08

Lab Sample Id: 658817-001

Date Collected: 04.14.2020 00:00

Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 04.15.2020 14:45

Basis: Wet Weight

Seq Number: 3123169

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	04.15.2020 19:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	04.15.2020 19:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	04.15.2020 19:58	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	04.15.2020 19:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	04.15.2020 19:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	04.15.2020 19:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	04.15.2020 19:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	04.15.2020 19:58	
1,4-Difluorobenzene	540-36-3	112	%	70-130	04.15.2020 19:58	



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

Aspen 32 State Com #001

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 Texas1005

Seq Number: 3123196

MB Sample Id: 7701347-1-BLK

Matrix: Solid

LCS Sample Id: 7701347-1-BKS

Prep Method: TX1005P

Date Prep: 04.15.2020

LCSD Sample Id: 7701347-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C6-C12 Gasoline Range Hydrocarbons	<50.0	1000	1020	102	1030	103	75-125	1	20	mg/kg	04.15.2020 22:14	
>C12-C28 Diesel Range Hydrocarbons	<50.0	1000	1190	119	1180	118	75-125	1	20	mg/kg	04.15.2020 22:14	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
o-Terphenyl	119		123		116		70-130	%	04.15.2020 22:14
1-Chlorooctane	101		105		99		70-130	%	04.15.2020 22:14

Analytical Method: TPH by Texas1005

Seq Number: 3123196

Matrix: Solid

MB Sample Id: 7701347-1-BLK

Prep Method: TX1005P

Date Prep: 04.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
>C28-C35 Oil Range Hydrocarbons	<50.0	mg/kg	04.15.2020 21:53	

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

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

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

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



Etech Environmental & Safety Solution, Inc

Aspen 32 State Com #001

Analytical Method: TPH by Texas1005

Seq Number: 3123196

Parent Sample Id: 658817-001

Matrix: Soil

MS Sample Id: 658817-001 S

Prep Method: TX1005P

Date Prep: 04.15.2020

MSD Sample Id: 658817-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
C6-C12 Gasoline Range Hydrocarbons	<49.9	997	1070	107	1060	106	75-125	1	30	mg/kg	04.15.2020 23:18	
>C12-C28 Diesel Range Hydrocarbons	<49.9	997	1170	117	1200	120	75-125	3	30	mg/kg	04.15.2020 23:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
o-Terphenyl	124		109		70-130	%	04.15.2020 23:18
1-Chlorooctane	109		110		70-130	%	04.15.2020 23:18

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123169

MB Sample Id: 7701374-1-BLK

Matrix: Solid

LCS Sample Id: 7701374-1-BKS

Prep Method: SW5030B

Date Prep: 04.15.2020

LCSD Sample Id: 7701374-1-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	0.0978	98	0.105	105	70-130	7	35	mg/kg	04.15.2020 11:39	
Toluene	<0.00200	0.100	0.107	107	0.108	108	70-130	1	35	mg/kg	04.15.2020 11:39	
Ethylbenzene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35	mg/kg	04.15.2020 11:39	
m,p-Xylenes	<0.00400	0.200	0.224	112	0.225	113	70-130	0	35	mg/kg	04.15.2020 11:39	
o-Xylene	<0.00200	0.100	0.113	113	0.113	113	70-130	0	35	mg/kg	04.15.2020 11:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		103		103		70-130	%	04.15.2020 11:39
4-Bromofluorobenzene	104		115		121		70-130	%	04.15.2020 11:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3123169

Parent Sample Id: 658547-001

Matrix: Soil

MS Sample Id: 658547-001 S

Prep Method: SW5030B

Date Prep: 04.15.2020

MSD Sample Id: 658547-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00221	0.110	0.0848	77	0.118	107	70-130	33	35	mg/kg	04.15.2020 12:19	
Toluene	<0.00221	0.110	0.0977	89	0.112	102	70-130	14	35	mg/kg	04.15.2020 12:19	
Ethylbenzene	<0.00221	0.110	0.0951	86	0.111	101	70-130	15	35	mg/kg	04.15.2020 12:19	
m,p-Xylenes	<0.00441	0.221	0.189	86	0.222	101	70-130	16	35	mg/kg	04.15.2020 12:19	
o-Xylene	<0.00221	0.110	0.0952	87	0.115	105	70-130	19	35	mg/kg	04.15.2020 12:19	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	116		109		70-130	%	04.15.2020 12:19
4-Bromofluorobenzene	111		116		70-130	%	04.15.2020 12:19

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) 794-1266
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3198, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 445-8800

Work Order No.:

13857

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfield <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level <input type="checkbox"/> Level I <input type="checkbox"/> PST/UST <input type="checkbox"/> TRR <input type="checkbox"/> Level II <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

ANALYSIS REQUEST										Preservative Codes
										HN03: 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										

[illegible]

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
TC1P / 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 Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xencro 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 Xencro. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xencro, 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>	4/14/20	2 <i>[Signature]</i>	<i>[Signature]</i>	4/15
3			4		
5			6		4/15

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 #: 658817

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:



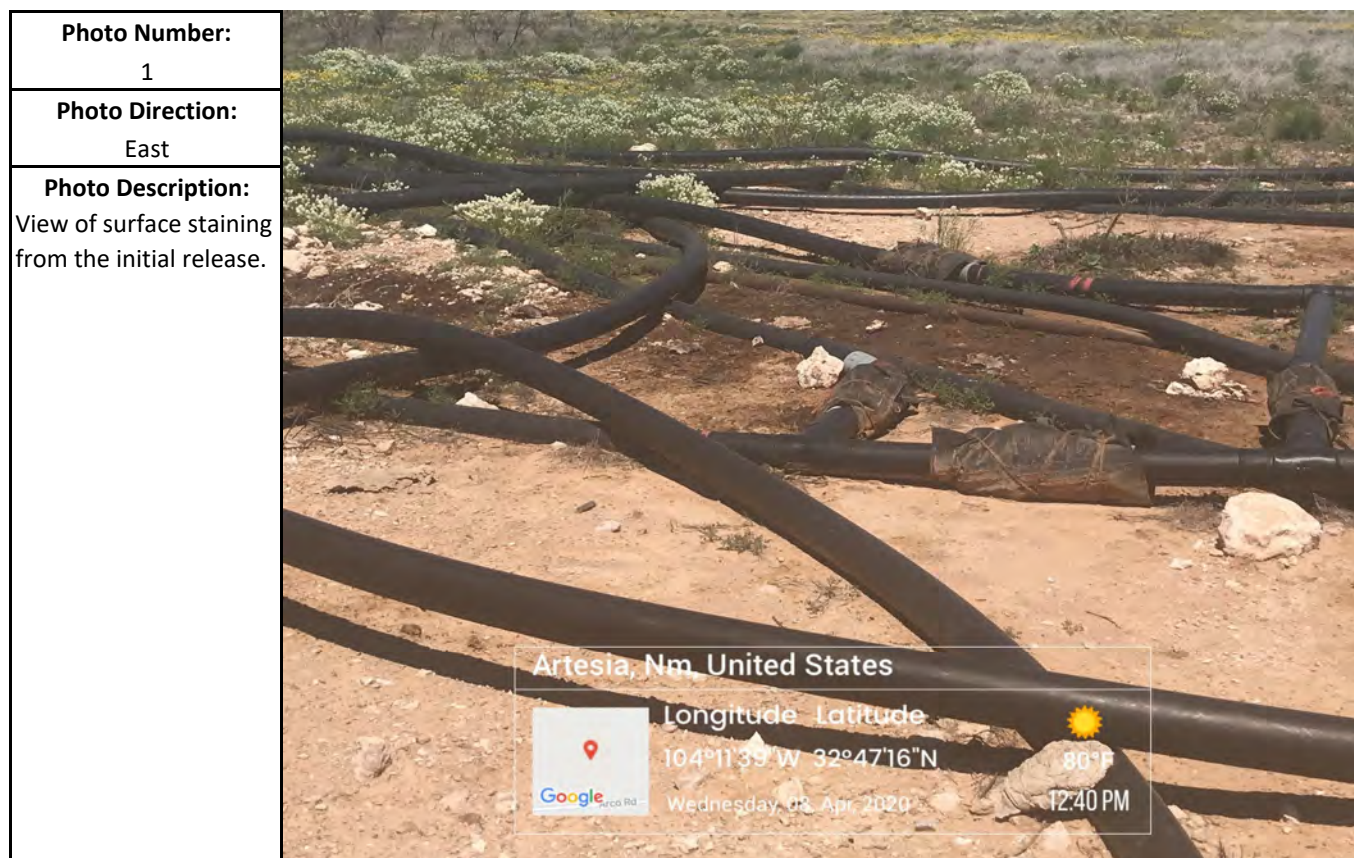
Jessica Kramer

Date: 04.15.2020

Appendix D

Photographic Log

Photographic Log



Photographic Log



Photographic Log

