

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

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

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

Incident ID	NRM2023455850
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD)
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.50247 Longitude -103.31101
(NAD 83 in decimal degrees to 5 decimal places)

Site Name EMSU 250	Site Type Wellhead
Date Release Discovered 08/11/2020	API# (if applicable)

Unit Letter	Section	Township	Range	County
M	06	21S	36E	Lea

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) .5	Volume Recovered (bbls) .20
☒ Produced Water	Volume Released (bbls) 11.89	Volume Recovered (bbls) 4.80
	Is the concentration of total dissolved solids (TDS) in the produced water > 10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release LO discovered fluid on location at the EMSU #250 and observed a broken 1" nipple broken on the pumping tee. Vacuum truck was dispatched to recover standing fluids. A third-party contractor has been retained for remediation activities.

Form C-141

State of New Mexico
Oil Conservation Division

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

Initial Response

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

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Kyle Littrell</u> Signature:  email: <u>Kyle_Littrell@xtoenergy.com</u>	Title: <u>SH&E Supervisor</u> Date: <u>8-21-20</u> Telephone: <u>432-221-7331</u>
OCD Only Received by: <u>Ramona Marcus</u> Date: <u>8/21/2020</u>	

NRM2023455850

Location:	EMSU 250	
Spill Date:	8/11/2020	
Area 1		
Approximate Area =	4875.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =	0.10	
VOLUME OF LEAK		
Total Crude Oil =	0.49	bbls
Total Produced Water =	11.75	bbls
Area 2		
Approximate Area =	811.00	sq. ft.
Average Saturation (or depth) of spill =	0.13	inches
Average Porosity Factor =	0.10	
VOLUME OF LEAK		
Total Crude Oil =	0.01	bbls
Total Produced Water =	0.14	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	0.50	bbls
Total Produced Water =	11.89	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil =	0.20	bbls
Total Produced Water =	4.80	bbls

Incident ID	NRM2023455850
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Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>110</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

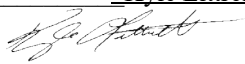
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

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Oil Conservation Division

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Kyle Littrell Title: SH&E SupervisorSignature:  Date: 04/08/2021email: Kyle_Littrell@xtoenergy.com Telephone: (432)-221-7331**OCD Only**

Received by: _____ Date: _____

Incident ID	NRM2023455850
District RP	
Facility ID	
Application ID	

Closure

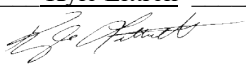
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled 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: Kyle Littrell Title: SH&E Supervisor

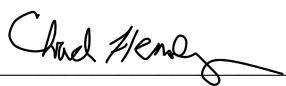
Signature:  Date: 04/08/2021

email: Kyle_Littrell@xtoenergy.com Telephone: 432-221-7331

OCD Only

Received by: Chad Hensley Date: 06/07/2021

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

Closure Approved by:  Date: 06/07/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced



WSP USA

3300 North "A" Street
Building 1, Unit 222
Midland, Texas 79705
432.704.5178

April 8, 2021

District I
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

**RE: Closure Request
EMSU 250
Incident Number NRM2023455850
Lea County, New Mexico**

To Whom It May Concern:

WSP USA Inc. on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the EMSU 250 (Site) located in Unit M, Section 06, Township 21 South, Range 36 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of crude oil and produced water at the Site. Based on excavation activities and soil sample laboratory analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NRM2023455850.

RELEASE BACKGROUND

On August 11, 2020, a broken 1-inch nipple on the pumping tee resulted in the release of approximately 11.89 barrels (bbls) of produced water and 0.5 bbls of crude oil onto the caliche well pad and into the adjacent pasture. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 4.80 bbls of produced water and 0.2 bbls of crude oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on August 21, 2020. The release was assigned Incident Number NRM2023455850.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with published depth to groundwater data is United States Geological Survey (USGS) well 322931103180301, located approximately 0.9 miles southeast of the Site. The groundwater well has a depth to water of 158 feet bgs, the total depth is undetermined. All wells used for depth



to groundwater determination are depicted on Figure 1 and the associated well water records are included in Attachment 1.

During March 2021, in an effort to confirm depth to water in the area, a borehole (CP-01863) was advanced to a depth of 110 feet bgs via track-mounted hollow stem auger. The borehole was located approximately 0.01 miles southeast of the Site. The location of the borehole CP-01863 is provided on Figure 1. A WSP geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 2. The borehole was left open for over 72 hours to allow for potential slow infill of ground water. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned utilizing hydrated bentonite chips.

The closest continuously flowing water or significant watercourse to the Site is a freshwater pond, located approximately 1.45 miles southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

A reclamation requirement of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet in the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On September 15, 2020 and December 11, 2020, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected seven preliminary soil samples (SS01 through SS07) within the release extent



from a depth of approximately 0.5 feet bgs to assess the lateral extent of the impacted soil. Soil from the preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS02, SS03, SS06, and SS07 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil samples SS01, SS04, and SS05 indicated that TPH and TPH-GRO/TPH-DRO concentrations exceeded the Site Closure Criteria and/or the reclamation requirement. Based on visible staining in the release area, field screening activities, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

DELINEATION SOIL SAMPLING AND EXCAVATION ACTIVITIES

Between December 9, 2020 and December 11, 2020, WSP personnel returned to the Site to oversee excavation and delineation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples.

One pothole (PH01) was advanced via track hoe within the pasture release area to assess the vertical extent of impacted soil in the pasture. Pothole PH01 was advanced to a depth of 4 feet bgs. Delineation soil samples were collected from pothole PH01 from depths of 1-foot and 4 feet bgs. Soil from the pothole was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The pothole location is depicted on Figure 3.

Excavation activities were completed to remove staining in the release footprint and remove impacted soil in the areas surrounding preliminary soil samples SS01, SS04, and SS05. Excavation activities were performed using a track hoe and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively.



Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite sidewall samples SW01 and SW02 were collected from the sidewalls of the pasture excavation from depths ranging from the ground surface to 2 feet bgs. Composite floor samples FS01 through FS30 were collected from the floor of the excavation from depths ranging from 0.5 feet bgs to 2 feet bgs. Due to the shallow depth of the excavation on pad, the soil samples represented the floor and sidewalls of the excavation. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 4. Photographic documentation is included in Attachment 3.

The excavation area totaled approximately 5,592 square feet. A total of approximately 199 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was backfilled.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS02, SS03, SS06, and SS07 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil samples SS01, SS04, and SS05 indicated that TPH and TPH-GRO/TPH-DRO concentrations exceeded the Closure Criteria and/or the reclamation requirement.

Laboratory analytical results for the delineation soil sample collected from pothole PH01 at 1-foot bgs indicated that TPH concentrations exceeded the reclamation requirement in the top 4 feet; subsequent sample PH01A collected at 4 feet bgs was compliant with the Closure Criteria and the reclamation requirement.

Based on laboratory analytical results for the preliminary and delineation soil samples, impacted soil was excavated. Laboratory analytical results for excavation sidewall samples SW01 and SW02 and excavation floor samples FS01 through FS22 and FS24 through FS30, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and compliant with the reclamation requirement in samples collected in the pasture from the top four feet of the subsurface. Excavation floor sample FS23 initially exceeded the Closure Criteria for TPH-GRO/TPH-DRO. Additional soil was removed from this area and subsequent soil sample FS24 collected from the final excavation extent, was compliant. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4.

District I
Page 5**CLOSURE REQUEST**

Site assessment and excavation activities were conducted to address the August 11, 2020 release of crude oil and produced water at the Site. Laboratory analytical results for excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, soil samples collected in the pasture from the top four feet of the subsurface were compliant with the reclamation requirement. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.

Initial response efforts which included removal of freestanding fluids via hydrovac and excavation of impacted soil have mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 110 feet bgs and no other sensitive receptors were identified near the release extent. WSP and XTO believe these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests no further action for Incident Number NRM2023455850.

If you have any questions or comments, please do not hesitate to contact Ms. Ashley Ager at (970) 385-1096.

Sincerely,

WSP USA Inc.

A handwritten signature in black ink, appearing to read 'Fatima Smith'.

Fatima Smith
Associate Consultant, Geologist

A handwritten signature in black ink, appearing to read 'Ashley L. Ager'.

Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations



District I
Page 6

Figure 4 Excavation Soil Sample Locations
Table 1 Soil Analytical Results
Attachment 1 Referenced Well Records
Attachment 2 Lithologic/Sampling Log
Attachment 3 Photographic Log
Attachment 4 Laboratory Analytical Reports

FIGURES



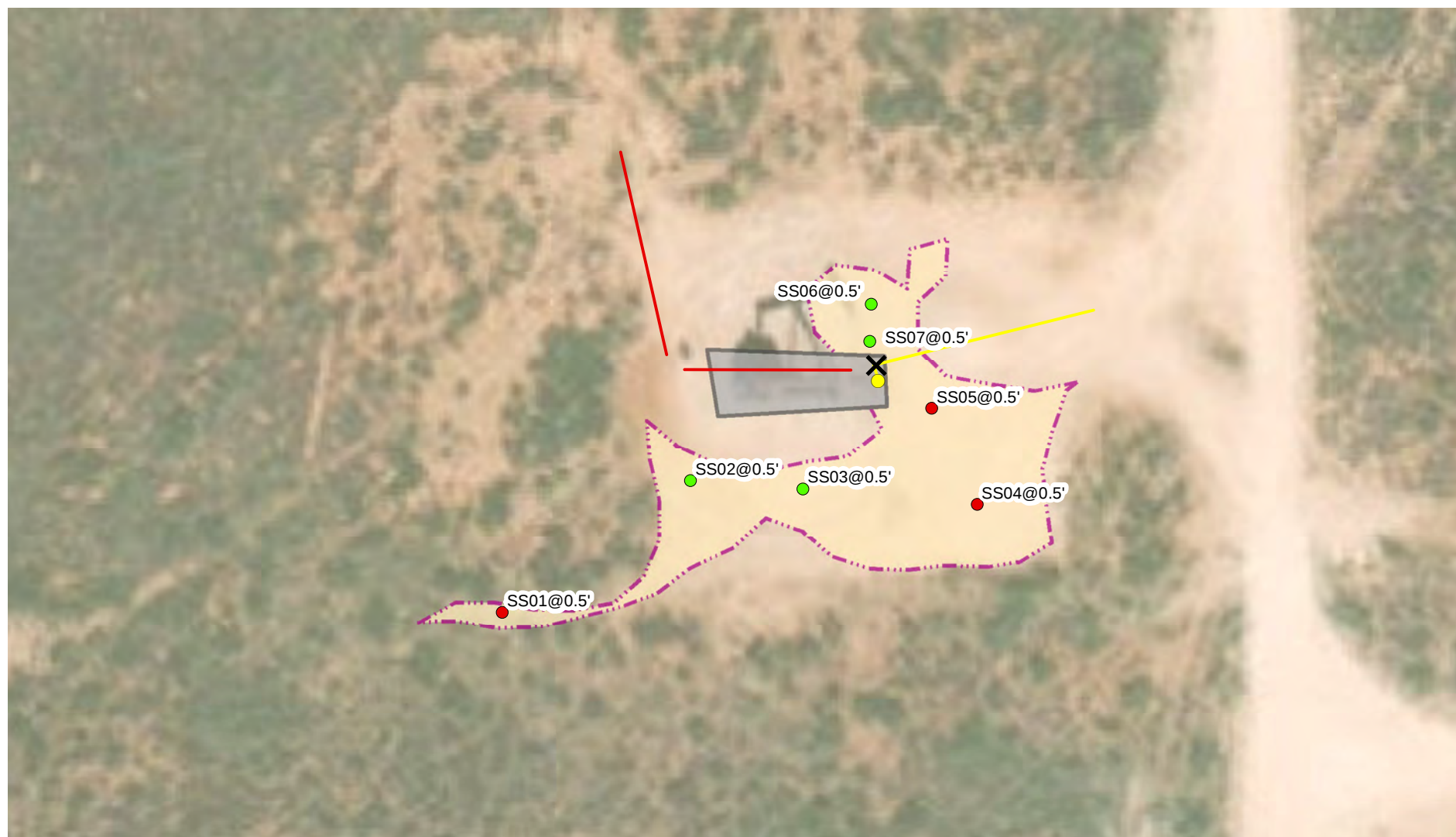


IMAGE COURTESY OF ESRI

LEGEND

- | | | | |
|---|---|-------|----------------|
| ✕ | RELEASE LOCATION | — | ELECTRIC LINE |
| ● | WELLHEAD | — | GAS LINE |
| ● | PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA | - - - | RELEASE EXTENT |
| ● | PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA | ■ | INFRASTRUCTURE |

NOTE: INCIDENT NUMBER NRM2023455850
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

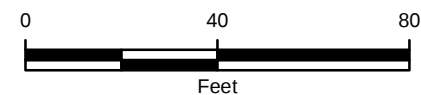


FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
 EMSU 250
 UNIT M SEC 6 T21S R36E
 LEA COUNTY, NEW MEXICO
 XTO ENERGY, INC.



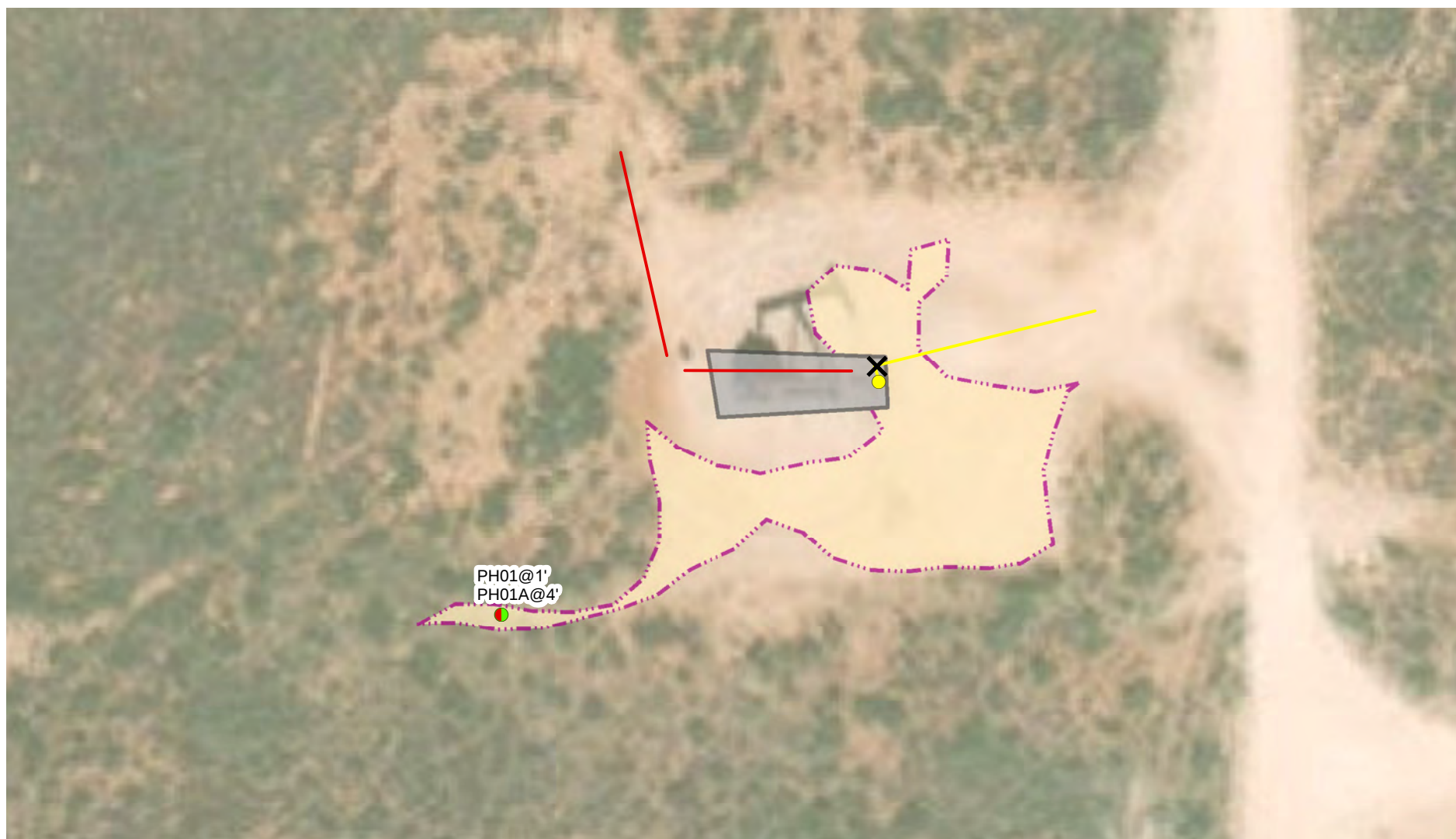


IMAGE COURTESY OF ESRI

LEGEND

- | | | | |
|---------------------------------------|---|--|----------------|
| X | RELEASE LOCATION | — | ELECTRIC LINE |
| ● | WELLHEAD | — | GAS LINE |
| ● | DELINATION SOIL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA | - - - | RELEASE EXTENT |
| ● | | | INFRASTRUCTURE |

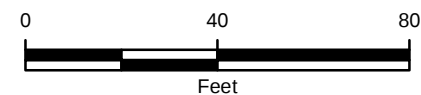


FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
 EMSU 250
 UNIT M SEC 6 T21S R36E
 LEA COUNTY, NEW MEXICO
 XTO ENERGY, INC.



NOTE: INCIDENT NUMBER NRM2023455850
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

P:\XTO Energy\GIS\MXD\012920132_EMSU 250\012920132_FIG03_DELINEATION_2021.mxd

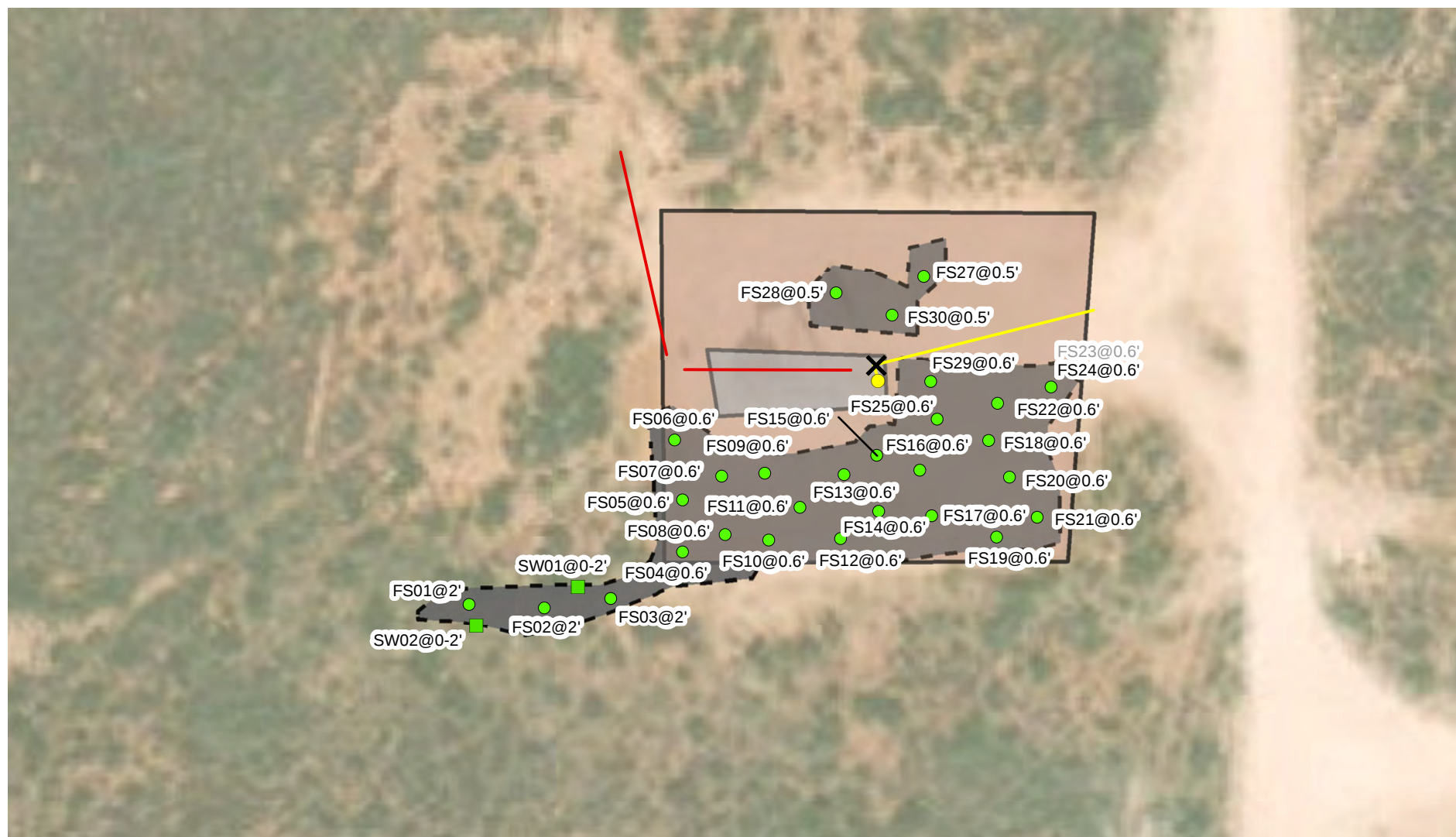


IMAGE COURTESY OF ESRI

LEGEND

- | | | | |
|---|---|---|-------------------|
| ✕ | RELEASE LOCATION | — | ELECTRIC LINE |
| ● | WELLHEAD | — | GAS LINE |
| ● | FLOOR SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIA | ▬ | EXCAVATION EXTENT |
| ■ | SIDEWALL SAMPLE IN COMPLIANCE
WITH APPLICABLE CLOSURE CRITERIA | ▬ | INFRASTRUCTURE |
| | | ▬ | WELLPAD EXTENT |

TEXT: INDICATES SOIL REPRESENTED BY SAMPLE
THAT WAS REMOVED

NOTE: INCIDENT NUMBER NRM2023455850
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

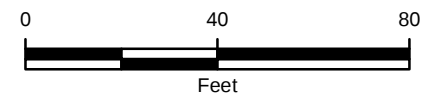


FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
EMSU 250
UNIT M SEC 6 T21S R36E
LEA COUNTY, NEW MEXICO
XTO ENERGY, INC.



TABLES

Table 1

Soil Analytical Results
EMSU 250
Incident Number NRM2023455850
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Surface Samples										
SS01	09/15/2020	0.5	<0.0200	<0.0200	5,890	<251	634	5,890	6,520	412*
SS02	09/15/2020	0.5	<0.00199	<0.00199	299	<49.8	99.7	299	399	205
SS03	09/15/2020	0.5	<0.00201	<0.00201	268	<50.2	<50.2	268	268	303
SS04	09/15/2020	0.5	<0.0100	<0.0100	2,620	<251	374	2,620	2,990	3,940
SS05	09/15/2020	0.5	<0.00198	<0.00198	2,200	<50.0	266	2,200	2,470	232
SS06	09/15/2020	0.5	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	171
SS07	12/11/2020	0.5	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,180
Delineation Samples										
PH01	12/09/2020	1	<0.00199	<0.00199	529	<49.9	69.4	529	598	390*
PH01A	12/09/2020	4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	<10.0*
Excavation Floor Samples										
FS01	12/09/2020	2	<0.00200	<0.00200	78.5	<50.0	<50.0	78.5	78.5	163*
FS02	12/10/2020	2	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	87.5*
FS03	12/10/2020	2	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	472*
FS04	12/10/2020	0.6	<0.00199	<0.00199	190	<50.0	<50.0	190	190	473
FS05	12/10/2020	0.6	<0.00202	<0.00202	97.9	<50.0	<50.0	97.9	97.9	415
FS06	12/10/2020	0.6	<0.00200	<0.00200	77.5	<50.2	<50.2	77.5	77.5	290
FS07	12/10/2020	0.6	<0.00200	<0.00200	83.4	<50.0	<50.0	83.4	83.4	201
FS08	12/10/2020	0.6	<0.00199	<0.00199	334	<50.1	<50.1	334	334	232
FS09	12/10/2020	0.6	<0.00202	<0.00202	91.7	<49.8	<49.8	91.7	91.7	283

Table 1

Soil Analytical Results
EMSU 250
Incident Number NRM2023455850
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS10	12/10/2020	0.6	<0.00202	<0.00202	92.5	<50.1	<50.1	92.5	92.5	103
FS11	12/10/2020	0.6	<0.00201	<0.00201	145	<50.2	<50.2	145	145	264
FS12	12/10/2020	0.6	<0.00198	<0.00198	200	<49.8	<49.8	200	200	418
FS13	12/10/2020	0.6	<0.00200	<0.00200	229	<49.8	77.9	229	307	418
FS14	12/10/2020	0.6	<0.00199	<0.00199	147	<50.2	<50.2	147	147	620
FS15	12/10/2020	0.6	<0.00198	<0.00198	57.1	<50.1	<50.1	57.1	57.1	328
FS16	12/11/2020	0.6	<0.00199	<0.00199	207	<50.3	75.8	207	283	395
FS17	12/11/2020	0.6	<0.00199	<0.00199	113	<50.2	<50.2	113	113	382
FS18	12/11/2020	0.6	<0.00200	<0.00200	205	<50.3	<50.3	205	205	453
FS19	12/11/2020	0.6	<0.00202	<0.00202	124	<50.1	<50.1	124	124	630
FS20	12/11/2020	0.6	<0.00200	<0.00200	348	<49.9	55.1	348	403	497
FS21	12/11/2020	0.6	<0.00198	<0.00198	122	<50.2	<50.2	122	122	351
FS22	12/11/2020	0.6	<0.00202	<0.00202	954	<50.3	136	954	1,090	222
FS23	12/11/2020	0.6	<0.00202	<0.00202	2,150	<50.2	276	2,150	2,430	265
FS24	12/11/2020	0.7	<0.00198	<0.00198	78.3	<50.3	<50.3	78.3	78.3	208
FS25	12/11/2020	0.6	<0.00202	<0.00202	85.6	<50.3	<50.3	85.6	85.6	468
FS26	12/11/2020	0.6	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	198
FS27	12/11/2020	0.5	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	765
FS28	12/11/2020	0.5	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	781
FS29	12/11/2020	0.6	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	375
FS30	12/11/2020	0.5	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	326

Table 1

Soil Analytical Results
EMSU 250
Incident Number NRM2023455850
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Sidewall Samples										
SW01	12/10/2020	0-2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	208*
SW02	12/10/2020	0-2	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	136*

Notes

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard

*-indicated sample was collected in area to be reclaimed after remediation is complete;

closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg

Text

impacted soil was excavated

ATTACHMENT 1: REFERENCED WELL RECORD



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National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 322931103180301

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

USGS 322931103180301 21S.36E.07.23324

Lea County, New Mexico
Latitude 32°29'31", Longitude 103°18'03" NAD27
Land-surface elevation 3,591 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1976-02-03			D62610		3431.19	NGVD29	1		Z	
1976-02-03			D62611		3432.56	NAVD88	1		Z	
1976-02-03			D72019	158.44			1		Z	
1981-03-05			D62610		3431.12	NGVD29	1		Z	
1981-03-05			D62611		3432.49	NAVD88	1		Z	
1981-03-05			D72019	158.51			1		Z	
1986-03-19			D62610		3431.81	NGVD29	1		Z	
1986-03-19			D62611		3433.18	NAVD88	1		Z	
1986-03-19			D72019	157.82			1		Z	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
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: 2021-04-06 10:43:51 EDT

0.42 0.4 nadww01

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220								BH or PH Name:		Date:	
								BH01		3/24/2021	
								Site Name:		EMSU 250	
								RP or Incident Number:		NRM2023455850	
LTE Job Number: TE012920132								Logged By SL		Method: Hollow Stem Auger	
Lat/Long: 32.502315,-103.310909				Field Screening: N/A				Hole Diameter: 6.5"		Total Depth: 110.35'	
Comments: No field screening, only logged lithology, well screened from 90.35' - 110.35'											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0	SP	0-4' Sand w/ caliche gravel, brown, no odor, no stain, m-f grained, well sorted, dry			
						5					
						10	CCHE	4'-14' Caliche, offwhite, tan, no odor, no stain, consolidated dry			
						15					
						20	SP-SM	14'-21' Sand w/ calich, tan, no odor, no stain, fine-very fine, well sorted, no consolidation, some silt, dry			
						25	SP	-18'- decrease in caliche content			
						30		21'-110.35' Sand, tan, no odor, no stain, fine-very fine, well sorted, no consolidation, dry			
						35					
						40					
						45					
						50					
						55					
						60					
						65					
						70					
						75					
						80					
						85					
						90					
						95					
						100					
						105					
						110					
						115		TD @ 110.35'			
						120					



2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

05/05/2021

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-1863 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-1863 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Lucas Middleton".

Lucas Middleton

Enclosures: as noted above

CSE DIT APR 5 2021 #2125



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-1863			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES 32°	MINUTES 30'	SECONDS 8.59"	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND		
		LONGITUDE 103°	18'	39.37"	W	* DATUM REQUIRED: WGS 84		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SW Lot 18 Sec. 6 T21S R36E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 03/24/2021		DRILLING ENDED 03/24/2021		DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: ☐ ARTESIAN ☒ DRY HOLE ☐ SHALLOW (UNCONFINED)						STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a	
	DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☒ OTHER - SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	110	±6.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

OSE DJT APR 5 2021 PM2:25

	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)	
	FROM	TO					
4. HYDROGEOLOGIC LOG OF WELL	0	4	4	Caliche, tan, off-white, no odor, no stain, gravel, dry	Y ✓ N		
	4	14	10	Caliche, offwhite, tan, no odor, no stain, consolidated dry	Y ✓ N		
	14	21	7	Sand w/ caliche, tan, fine-very fine, well sorted, no consolidation, some silt, dry	Y ✓ N		
	21	110	89	Sand, tan, no odor, no stain, fine-very fine, well sorted, no consolidation, dry	Y ✓ N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
					Y N		
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:					TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
	5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.							
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge							
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:						
			Jackie D. Atkins		04/05/2021		
	SIGNATURE OF DRILLER / PRINT SIGNED NAME				DATE		

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	POD NO.	TRN NO.	
LOCATION	WELL TAG ID NO		PAGE 2 OF 2

2021-04-01_CP-1863_OSE_Well Record and Log_emsu-forsign

Final Audit Report

2021-04-05

Created:	2021-04-05
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAWvB7eLkVQjnu7Kbbd8gG1KtrV2yz_J8

"2021-04-01_CP-1863_OSE_Well Record and Log_emsu-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2021-04-05 - 5:32:53 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-04-05 - 5:33:25 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)
2021-04-05 - 5:33:47 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-04-05 - 5:34:06 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.
2021-04-05 - 5:34:06 PM GMT

OSE OIT APR 5 2021 PM2:26



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-1863- POD1

Well owner: XTO ENERGY (Kyle Littrell)

Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/21

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s):
Shane Eldridge

4) Date well plugging began: 03/31/2021 Date well plugging concluded: 03/31/2021

5) GPS Well Location: Latitude: 32 deg, 30 min, 8.59 sec
Longitude: -103 deg, 18 min, 39.37 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 110 ft below ground level (bgl),
by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 01/19/2021

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

OCD OCT APR 5 2021 PM 2:25

Version: September 8, 2009
Page 1 of 2

- For each interval plugged, describe within the following columns:**

Released to Imaging: 6/7/2021 11:30:04 AM

2021-04-01_CP-1863_Plugging Record-forsign

Final Audit Report

2021-04-05

Created:	2021-04-05
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAHnIVet8pN76tAPOo_baBcPQAbmeuNZu9

"2021-04-01_CP-1863_Plugging Record-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2021-04-05 - 5:31:56 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
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-  Email viewed by Jack Atkins (jack@atkinseng.com)
2021-04-05 - 5:33:15 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-04-05 - 5:33:29 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.
2021-04-05 - 5:33:29 PM GMT

DSE DTI APR 5 2021 PM2:25

ATTACHMENT 2: LITHOLOGIC/SOIL SAMPLING LOG

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220								BH or PH Name: PH01		Date: 12/09/2020	
								Site Name: EMSU 250			
								RP or Incident Number: NRM2023455850			
								WSP Job Number: TE012920132			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: FS		Method: Trackhoe	
Lat/Long: 32.502299, -103.311355				Field Screening: Hach chloride strips, PID				Hole Diameter: NA		Total Depth: 4 feet bgs	
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no; SAA-same as above											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
D	397	29.1	N	PH01	1	0	SP	SAND, dry, brown-light brown, poorly graded, fine-very fine grain, slight gas odor, some dark brown staining			
						1	CCHE	CALICHE, dry, tan, moderately consolidated, no stain, no odor			
						2	CCHE	SAA			
						3	CCHE	SAA			
D	<179	1.1	N	PH01A	4	4	CCHE	SAA			
TD @ 4 feet bgs											

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

XTO Energy, Inc	EMSU 250 Lea County, New Mexico	TE012920132
-----------------	------------------------------------	-------------

Photo No.	Date	
1	September 15 – December 11, 2020	
Point of release (POR) facing southwest		 A photograph showing a drilling rig or similar equipment on a dirt pad. The ground is dry and rocky. In the background, there is a flat landscape with some green vegetation under a clear sky.

Photo No.	Date	
2	September 15 – December 11, 2020	
Release extent in southeast corner of pad near SS04 location.		 A photograph showing a wide, flat area of dry, reddish-brown soil. There are some small green bushes and patches of darker soil. In the distance, a small structure or piece of equipment is visible on the horizon under a clear sky.



PHOTOGRAPHIC LOG

XTO Energy, Inc	EMSU 250 Lea County, New Mexico	TE012920132
-----------------	------------------------------------	-------------

Photo No.	Date	
3	September 15 – December 11, 2020	
Extent of release within pasture facing east-northeast		

Photo No.	Date	
4	September 15 – December 11, 2020	
Excavation within pasture facing east.		



PHOTOGRAPHIC LOG

XTO Energy, Inc	EMSU 250 Lea County, New Mexico	TE012920132
-----------------	------------------------------------	-------------

Photo No.	Date	
5	September 15 – December 11, 2020	
View of ongoing excavation activities facing northeast.		

Photo No.	Date	
6	September 15 – December 11, 2020	
Northern extent of final excavation facing west.		

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 672578



LT Environmental, Inc., Arvada, CO

Project Name: EMSU 250

Project Id: 012920132

Date Received in Lab: Tue 09.15.2020 13:35

Contact: Dan Moir

Report Date: 09.16.2020 12:12

Project Location: Eddy County

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	672578-001	672578-002	672578-003	672578-004	672578-005	672578-006
	Field Id:	SS01	SS02	SS03	SS04	SS05	SS06
	Depth:	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft	0.5- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	09.15.2020 10:35	09.15.2020 10:40	09.15.2020 10:45	09.15.2020 11:05	09.15.2020 11:10	09.15.2020 11:15
BTEX by EPA 8021B	Extracted:	09.15.2020 14:51	09.15.2020 14:51	09.15.2020 14:51	09.15.2020 14:51	09.15.2020 14:51	09.15.2020 14:51
	Analyzed:	09.15.2020 18:09	09.15.2020 19:04	09.15.2020 19:27	09.15.2020 19:49	09.15.2020 20:45	09.15.2020 21:07
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.0200 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.0100 0.0100	<0.00198 0.00198	<0.00202 0.00202
Toluene		<0.0200 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.0100 0.0100	<0.00198 0.00198	<0.00202 0.00202
Ethylbenzene		<0.0200 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.0100 0.0100	<0.00198 0.00198	<0.00202 0.00202
m,p-Xylenes		<0.0400 0.0400	<0.00398 0.00398	<0.00402 0.00402	<0.0200 0.0200	<0.00397 0.00397	<0.00403 0.00403
o-Xylene		<0.0200 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.0100 0.0100	<0.00198 0.00198	<0.00202 0.00202
Total Xylenes		<0.0200 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.0100 0.0100	<0.00198 0.00198	<0.00202 0.00202
Total BTEX		<0.0200 0.0200	<0.00199 0.00199	<0.00201 0.00201	<0.0100 0.0100	<0.00198 0.00198	<0.00202 0.00202
Chloride by EPA 300	Extracted:	09.15.2020 15:00	09.15.2020 15:00	09.15.2020 15:00	09.15.2020 15:00	09.15.2020 15:00	09.15.2020 15:00
	Analyzed:	09.15.2020 16:41	09.15.2020 16:46	09.15.2020 16:52	09.15.2020 16:57	09.15.2020 17:03	09.15.2020 17:08
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		412 10.0	205 9.98	303 10.1	3940 50.4	232 9.96	171 10.1
TPH by SW8015 Mod	Extracted:	09.15.2020 14:00	09.15.2020 14:00	09.15.2020 14:00	09.15.2020 14:00	09.15.2020 14:00	09.15.2020 14:00
	Analyzed:	09.15.2020 23:51	09.16.2020 00:31	09.15.2020 22:51	09.15.2020 23:31	09.16.2020 00:52	09.15.2020 23:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<251 251	<49.8 49.8	<50.2 50.2	<251 251	<50.0 50.0	<50.2 50.2
Diesel Range Organics (DRO)		5890 251	299 49.8	268 50.2	2620 251	2200 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		634 251	99.7 49.8	<50.2 50.2	374 251	266 50.0	<50.2 50.2
Total GRO-DRO		5890 251	299 49.8	268 50.2	2620 251	2200 50.0	<50.2 50.2
Total TPH		6520 251	399 49.8	268 50.2	2990 251	2470 50.0	<50.2 50.2

BRL - Below Reporting Limit

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



Analytical Report 672578

for

LT Environmental, Inc.

Project Manager: Dan Moir

EMSU 250

012920132

09.16.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



09.16.2020

Project Manager: **Dan Moir**

LT Environmental, Inc.

4600 W. 60th Avenue

Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **672578**

EMSU 250

Project Address: Eddy County

Dan Moir:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 672578. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 672578 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

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

**Sample Cross Reference 672578****LT Environmental, Inc., Arvada, CO**

EMSU 250

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	09.15.2020 10:35	0.5 ft	672578-001
SS02	S	09.15.2020 10:40	0.5 ft	672578-002
SS03	S	09.15.2020 10:45	0.5 ft	672578-003
SS04	S	09.15.2020 11:05	0.5 ft	672578-004
SS05	S	09.15.2020 11:10	0.5 ft	672578-005
SS06	S	09.15.2020 11:15	0.5 ft	672578-006



CASE NARRATIVE

Client Name: LT Environmental, Inc.

Project Name: EMSU 250

Project ID: 012920132
Work Order Number(s): 672578

Report Date: 09.16.2020
Date Received: 09.15.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS01** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-001 Date Collected: 09.15.2020 10:35 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	412	10.0	mg/kg	09.15.2020 16:41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<251	251	mg/kg	09.15.2020 23:51	U	5
Diesel Range Organics (DRO)	C10C28DRO	5890	251	mg/kg	09.15.2020 23:51		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	634	251	mg/kg	09.15.2020 23:51		5
Total GRO-DRO	PHC628	5890	251	mg/kg	09.15.2020 23:51		5
Total TPH	PHC635	6520	251	mg/kg	09.15.2020 23:51		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	133	%	70-135	09.15.2020 23:51	
o-Terphenyl	84-15-1	130	%	70-135	09.15.2020 23:51	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS01**
Lab Sample Id: 672578-001

Matrix: Soil
Date Collected: 09.15.2020 10:35

Date Received: 09.15.2020 13:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 14:51

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0200	0.0200	mg/kg	09.15.2020 18:09	U	1
Toluene	108-88-3	<0.0200	0.0200	mg/kg	09.15.2020 18:09	U	1
Ethylbenzene	100-41-4	<0.0200	0.0200	mg/kg	09.15.2020 18:09	U	1
m,p-Xylenes	179601-23-1	<0.0400	0.0400	mg/kg	09.15.2020 18:09	U	1
o-Xylene	95-47-6	<0.0200	0.0200	mg/kg	09.15.2020 18:09	U	1
Total Xylenes	1330-20-7	<0.0200	0.0200	mg/kg	09.15.2020 18:09	U	1
Total BTEX		<0.0200	0.0200	mg/kg	09.15.2020 18:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	09.15.2020 18:09	
4-Bromofluorobenzene	460-00-4	85	%	70-130	09.15.2020 18:09	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS02** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-002 Date Collected: 09.15.2020 10:40 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	205	9.98	mg/kg	09.15.2020 16:46		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	09.16.2020 00:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	299	49.8	mg/kg	09.16.2020 00:31		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	99.7	49.8	mg/kg	09.16.2020 00:31		1
Total GRO-DRO	PHC628	299	49.8	mg/kg	09.16.2020 00:31		1
Total TPH	PHC635	399	49.8	mg/kg	09.16.2020 00:31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	09.16.2020 00:31	
o-Terphenyl	84-15-1	128	%	70-135	09.16.2020 00:31	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS02**
Lab Sample Id: 672578-002

Matrix: Soil
Date Collected: 09.15.2020 10:40

Date Received: 09.15.2020 13:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 14:51

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	09.15.2020 19:04	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	09.15.2020 19:04	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	09.15.2020 19:04	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	09.15.2020 19:04	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	09.15.2020 19:04	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	09.15.2020 19:04	U	1
Total BTEX		<0.00199	0.00199	mg/kg	09.15.2020 19:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	09.15.2020 19:04	
1,4-Difluorobenzene	540-36-3	92	%	70-130	09.15.2020 19:04	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS03** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-003 Date Collected: 09.15.2020 10:45 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	303	10.1	mg/kg	09.15.2020 16:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.15.2020 22:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	268	50.2	mg/kg	09.15.2020 22:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.15.2020 22:51	U	1
Total GRO-DRO	PHC628	268	50.2	mg/kg	09.15.2020 22:51		1
Total TPH	PHC635	268	50.2	mg/kg	09.15.2020 22:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	09.15.2020 22:51	
o-Terphenyl	84-15-1	125	%	70-135	09.15.2020 22:51	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS03**
Lab Sample Id: 672578-003

Matrix: Soil
Date Collected: 09.15.2020 10:45

Date Received: 09.15.2020 13:35
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 09.15.2020 14:51

Basis: Wet Weight

Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	09.15.2020 19:27	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	09.15.2020 19:27	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	09.15.2020 19:27	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	09.15.2020 19:27	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	09.15.2020 19:27	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	09.15.2020 19:27	U	1
Total BTEX		<0.00201	0.00201	mg/kg	09.15.2020 19:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.15.2020 19:27		
1,4-Difluorobenzene	540-36-3	102	%	70-130	09.15.2020 19:27		



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS04** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-004 Date Collected: 09.15.2020 11:05 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3940	50.4	mg/kg	09.15.2020 16:57		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<251	251	mg/kg	09.15.2020 23:31	U	5
Diesel Range Organics (DRO)	C10C28DRO	2620	251	mg/kg	09.15.2020 23:31		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	374	251	mg/kg	09.15.2020 23:31		5
Total GRO-DRO	PHC628	2620	251	mg/kg	09.15.2020 23:31		5
Total TPH	PHC635	2990	251	mg/kg	09.15.2020 23:31		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	09.15.2020 23:31	
o-Terphenyl	84-15-1	134	%	70-135	09.15.2020 23:31	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS04** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-004 Date Collected: 09.15.2020 11:05 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 14:51 Basis: Wet Weight
 Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0100	0.0100	mg/kg	09.15.2020 19:49	U	1
Toluene	108-88-3	<0.0100	0.0100	mg/kg	09.15.2020 19:49	U	1
Ethylbenzene	100-41-4	<0.0100	0.0100	mg/kg	09.15.2020 19:49	U	1
m,p-Xylenes	179601-23-1	<0.0200	0.0200	mg/kg	09.15.2020 19:49	U	1
o-Xylene	95-47-6	<0.0100	0.0100	mg/kg	09.15.2020 19:49	U	1
Total Xylenes	1330-20-7	<0.0100	0.0100	mg/kg	09.15.2020 19:49	U	1
Total BTEX		<0.0100	0.0100	mg/kg	09.15.2020 19:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	09.15.2020 19:49		
4-Bromofluorobenzene	460-00-4	88	%	70-130	09.15.2020 19:49		



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS05** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-005 Date Collected: 09.15.2020 11:10 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	232	9.96	mg/kg	09.15.2020 17:03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	09.16.2020 00:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	2200	50.0	mg/kg	09.16.2020 00:52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	266	50.0	mg/kg	09.16.2020 00:52		1
Total GRO-DRO	PHC628	2200	50.0	mg/kg	09.16.2020 00:52		1
Total TPH	PHC635	2470	50.0	mg/kg	09.16.2020 00:52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	09.16.2020 00:52	
o-Terphenyl	84-15-1	132	%	70-135	09.16.2020 00:52	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS05** Matrix: **Soil** Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-005 Date Collected: 09.15.2020 11:10 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: **MAB** % Moisture:
 Analyst: **MAB** Date Prep: 09.15.2020 14:51 Basis: **Wet Weight**
 Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	09.15.2020 20:45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	09.15.2020 20:45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	09.15.2020 20:45	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	09.15.2020 20:45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	09.15.2020 20:45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	09.15.2020 20:45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	09.15.2020 20:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	86	%	70-130	09.15.2020 20:45		
1,4-Difluorobenzene	540-36-3	97	%	70-130	09.15.2020 20:45		



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS06** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-006 Date Collected: 09.15.2020 11:15 Sample Depth: 0.5 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 15:00 Basis: Wet Weight
 Seq Number: 3137215

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	171	10.1	mg/kg	09.15.2020 17:08		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 09.15.2020 14:00 Basis: Wet Weight
 Seq Number: 3137152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	09.15.2020 23:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	09.15.2020 23:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	09.15.2020 23:10	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	09.15.2020 23:10	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	09.15.2020 23:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	09.15.2020 23:10	
o-Terphenyl	84-15-1	131	%	70-135	09.15.2020 23:10	



Certificate of Analytical Results 672578

LT Environmental, Inc., Arvada, CO

EMSU 250

Sample Id: **SS06** Matrix: Soil Date Received: 09.15.2020 13:35
 Lab Sample Id: 672578-006 Date Collected: 09.15.2020 11:15 Sample Depth: 0.5 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB % Moisture:
 Analyst: MAB Date Prep: 09.15.2020 14:51 Basis: Wet Weight
 Seq Number: 3137182

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	09.15.2020 21:07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	09.15.2020 21:07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	09.15.2020 21:07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	09.15.2020 21:07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	09.15.2020 21:07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	09.15.2020 21:07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	09.15.2020 21:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	09.15.2020 21:07		
4-Bromofluorobenzene	460-00-4	124	%	70-130	09.15.2020 21:07		



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



LT Environmental, Inc.
EMSU 250

Analytical Method: Chloride by EPA 300

Seq Number: 3137215

MB Sample Id: 7711376-1-BLK

Matrix: Solid

LCS Sample Id: 7711376-1-BKS

Prep Method: E300P

Date Prep: 09.15.2020

LCSD Sample Id: 7711376-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	256	102	256	102	90-110	0	20	mg/kg	09.15.2020 15:40	

Analytical Method: Chloride by EPA 300

Seq Number: 3137215

Parent Sample Id: 672561-001

Matrix: Soil

MS Sample Id: 672561-001 S

Prep Method: E300P

Date Prep: 09.15.2020

MSD Sample Id: 672561-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1650	201	1830	90	1830	90	90-110	0	20	mg/kg	09.15.2020 15:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3137215

Parent Sample Id: 672578-006

Matrix: Soil

MS Sample Id: 672578-006 S

Prep Method: E300P

Date Prep: 09.15.2020

MSD Sample Id: 672578-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	171	202	378	102	377	102	90-110	0	20	mg/kg	09.15.2020 17:14	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137152

MB Sample Id: 7711341-1-BLK

Matrix: Solid

LCS Sample Id: 7711341-1-BKS

Prep Method: SW8015P

Date Prep: 09.15.2020

LCSD Sample Id: 7711341-1-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	766	77	786	79	70-135	3	35	mg/kg	09.15.2020 10:46	
Diesel Range Organics (DRO)	<50.0	1000	850	85	888	89	70-135	4	35	mg/kg	09.15.2020 10:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		111		114		70-135	%	09.15.2020 10:46
o-Terphenyl	102		107		109		70-135	%	09.15.2020 10:46

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137152

Matrix: Solid

MB Sample Id: 7711341-1-BLK

Prep Method: SW8015P

Date Prep: 09.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	09.15.2020 10:26	

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

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

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

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



LT Environmental, Inc.
EMSU 250

Analytical Method: TPH by SW8015 Mod

Seq Number: 3137152

Parent Sample Id: 672501-001

Matrix: Soil

MS Sample Id: 672501-001 S

Prep Method: SW8015P

Date Prep: 09.15.2020

MSD Sample Id: 672501-001 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)	<50.2	1000	719	72	731	73	70-135	2	35	mg/kg	09.15.2020 11:47	
Diesel Range Organics (DRO)	<50.2	1000	790	79	806	81	70-135	2	35	mg/kg	09.15.2020 11:47	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		131		70-135	%	09.15.2020 11:47
o-Terphenyl	126		127		70-135	%	09.15.2020 11:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137182

MB Sample Id: 7711337-1-BLK

Matrix: Solid

LCS Sample Id: 7711337-1-BKS

Prep Method: SW5035A

Date Prep: 09.15.2020

LCSD Sample Id: 7711337-1-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	0.102	102	0.105	105	70-130	3	35	mg/kg	09.15.2020 11:49	
Toluene	<0.00200	0.100	0.101	101	0.104	104	70-130	3	35	mg/kg	09.15.2020 11:49	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0989	99	71-129	4	35	mg/kg	09.15.2020 11:49	
m,p-Xylenes	<0.00400	0.200	0.192	96	0.200	100	70-135	4	35	mg/kg	09.15.2020 11:49	
o-Xylene	<0.00200	0.100	0.0939	94	0.0981	98	71-133	4	35	mg/kg	09.15.2020 11:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		97		98		70-130	%	09.15.2020 11:49
4-Bromofluorobenzene	87		86		88		70-130	%	09.15.2020 11:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3137182

Parent Sample Id: 672501-001

Matrix: Soil

MS Sample Id: 672501-001 S

Prep Method: SW5035A

Date Prep: 09.15.2020

MSD Sample Id: 672501-001 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	0.113	113	0.108	108	70-130	5	35	mg/kg	09.15.2020 12:34	
Toluene	<0.00200	0.0998	0.111	111	0.104	104	70-130	7	35	mg/kg	09.15.2020 12:34	
Ethylbenzene	<0.00200	0.0998	0.104	104	0.0943	94	71-129	10	35	mg/kg	09.15.2020 12:34	
m,p-Xylenes	<0.00399	0.200	0.210	105	0.188	94	70-135	11	35	mg/kg	09.15.2020 12:34	
o-Xylene	<0.00200	0.0998	0.104	104	0.0932	93	71-133	11	35	mg/kg	09.15.2020 12:34	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	09.15.2020 12:34
4-Bromofluorobenzene	88		86		70-130	%	09.15.2020 12:34

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 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

Work Order No: 1670578

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littlell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 West Mermond
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	enaka@ltenv.com, dmoir@ltenv.com

Program: UST/PT ☐ RP ☐ Growfields ☐ RC ☐ Spertund ☐ State of Project:	
Reporting Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐	Deliverables: EDD ☐ ADAPT ☐ Other: ☐

Project Name:	BMSU 250	Turn Around	
Project Number:	012920132	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Elizabeth Naka	Due Date:	

SAMPLE RECEIPT	Temp Blank:	☒ Yes	No	Wet Ice:	☒ Yes	No
Temperature (°C):	1.6/1.4	Thermometer ID				
Received Intact:	Yes	No	Correction Factor: -0.0			
Cooler Custody Seals:	Yes	No	Total Containers: 6			
Sample Custody Seals:	Yes	No				

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Elizabeth Naka</i>	<i>Cue DuFon</i>	9.15.20 13:35			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 09.15.2020 01.35.00 PM

Work Order #: 672578

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

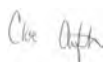
Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 09.15.2020

Checklist reviewed by:



Jessica Kramer

Date: 09.16.2020

Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 12.17.2020 09:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-001	680845-002	680845-003	680845-004	680845-005	680845-006
	<i>Field Id:</i>	PH01	PH01 A	FS01	FS02	FS03	FS04
	<i>Depth:</i>	1- ft	4- ft	2- ft	2- ft	2- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.09.2020 12:46	12.09.2020 12:56	12.09.2020 14:26	12.10.2020 09:58	12.10.2020 10:00	12.10.2020 11:45
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31
	<i>Analyzed:</i>	12.15.2020 00:46	12.15.2020 01:09	12.15.2020 01:31	12.15.2020 01:54	12.15.2020 02:17	12.15.2020 02:39
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30
	<i>Analyzed:</i>	12.14.2020 16:42	12.14.2020 16:59	12.14.2020 17:05	12.14.2020 17:10	12.14.2020 17:16	12.14.2020 18:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		390 9.92	<10.0 10.0	163 10.1	87.5 9.98	472 9.96	473 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 13:51	12.15.2020 19:41	12.15.2020 20:01	12.15.2020 20:22	12.15.2020 20:42	12.15.2020 21:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)		529 49.9	<49.9 49.9	78.5 50.0	<50.2 50.2	<50.1 50.1	190 50.0
Motor Oil Range Hydrocarbons (MRO)		69.4 49.9	<49.9 49.9	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.0 50.0
Total GRO-DRO		529 49.9	<49.9 49.9	78.5 50.0	<50.2 50.2	<50.1 50.1	190 50.0
Total TPH		598 49.9	<49.9 49.9	78.5 50.0	<50.2 50.2	<50.1 50.1	190 50.0

BRL - Below Reporting Limit

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

Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 12.17.2020 09:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-007	680845-008	680845-009	680845-010	680845-011	680845-012
	<i>Field Id:</i>	FS05	FS06	FS07	FS08	FS09	FS10
	<i>Depth:</i>	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.10.2020 11:48	12.10.2020 11:52	12.10.2020 11:55	12.10.2020 11:58	12.10.2020 13:15	12.10.2020 13:18
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31
	<i>Analyzed:</i>	12.15.2020 03:02	12.15.2020 03:25	12.15.2020 03:47	12.15.2020 04:10	12.15.2020 05:30	12.15.2020 05:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00404 0.00404
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30
	<i>Analyzed:</i>	12.14.2020 18:23	12.14.2020 18:29	12.14.2020 18:34	12.14.2020 18:40	12.14.2020 18:46	12.14.2020 19:02
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		415 9.94	290 9.98	201 9.92	232 9.98	283 9.90	103 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 21:22	12.15.2020 14:53	12.15.2020 15:13	12.15.2020 15:34	12.15.2020 15:54	12.15.2020 16:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		97.9 50.0	77.5 50.2	83.4 50.0	334 50.1	91.7 49.8	92.5 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.8 49.8	<50.1 50.1
Total GRO-DRO		97.9 50.0	77.5 50.2	83.4 50.0	334 50.1	91.7 49.8	92.5 50.1
Total TPH		97.9 50.0	77.5 50.2	83.4 50.0	334 50.1	91.7 49.8	92.5 50.1

BRL - Below Reporting Limit

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 12.17.2020 09:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-013	680845-014	680845-015	680845-016	680845-017	680845-018
	<i>Field Id:</i>	FS11	FS12	FS13	FS14	FS15	SW01
	<i>Depth:</i>	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0-2 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.10.2020 13:20	12.10.2020 13:58	12.10.2020 14:00	12.10.2020 14:03	12.10.2020 14:05	12.10.2020 10:14
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31
	<i>Analyzed:</i>	12.15.2020 06:15	12.15.2020 06:37	12.15.2020 07:00	12.15.2020 07:22	12.15.2020 07:45	12.15.2020 08:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30
	<i>Analyzed:</i>	12.14.2020 19:08	12.14.2020 19:25	12.14.2020 19:30	12.14.2020 19:36	12.14.2020 19:41	12.14.2020 19:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		264 9.92	418 9.98	418 9.96	620 9.98	328 9.96	208 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 16:36	12.15.2020 16:56	12.15.2020 17:17	12.15.2020 17:37	12.15.2020 18:18	12.15.2020 18:39
	<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)		<50.2 50.2	<49.8 49.8	<49.8 49.8	<50.2 50.2	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)		145 50.2	200 49.8	229 49.8	147 50.2	57.1 50.1	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.8 49.8	77.9 49.8	<50.2 50.2	<50.1 50.1	<50.0 50.0
Total GRO-DRO		145 50.2	200 49.8	229 49.8	147 50.2	57.1 50.1	<50.0 50.0
Total TPH		145 50.2	200 49.8	307 49.8	147 50.2	57.1 50.1	<50.0 50.0

BRL - Below Reporting Limit

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 12.17.2020 09:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-019	680845-020	680845-021	680845-022	680845-023	680845-024
	<i>Field Id:</i>	SW02	FS16	FS17	FS18	FS19	FS20
	<i>Depth:</i>	0-2 ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.10.2020 10:17	12.11.2020 09:28	12.11.2020 09:30	12.11.2020 09:32	12.11.2020 09:35	12.11.2020 09:37
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34
	<i>Analyzed:</i>	12.15.2020 08:29	12.15.2020 08:52	12.15.2020 01:27	12.15.2020 01:49	12.15.2020 02:12	12.15.2020 02:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00404 0.00404	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39
	<i>Analyzed:</i>	12.14.2020 19:52	12.14.2020 19:58	12.14.2020 20:32	12.14.2020 20:48	12.14.2020 20:54	12.14.2020 20:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		136 9.92	395 9.96	382 9.90	453 9.96	630 9.94	497 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 18:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 19:00	12.15.2020 19:20	12.16.2020 03:45	12.15.2020 19:41	12.15.2020 20:01	12.15.2020 20:22
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.3 50.3	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<50.2 50.2	207 50.3	113 50.2	205 50.3	124 50.1	348 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	75.8 50.3	<50.2 50.2	<50.3 50.3	<50.1 50.1	55.1 49.9
Total GRO-DRO		<50.2 50.2	207 50.3	113 50.2	205 50.3	124 50.1	348 49.9
Total TPH		<50.2 50.2	283 50.3	113 50.2	205 50.3	124 50.1	403 49.9

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 12.17.2020 09:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-025	680845-026	680845-027	680845-028	680845-029	680845-030
	<i>Field Id:</i>	FS21	FS22	FS23	FS24	FS25	FS26
	<i>Depth:</i>	0.6- ft	0.6- ft	0.6- ft	0.7- ft	0.6- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.11.2020 09:40	12.11.2020 10:23	12.11.2020 10:25	12.11.2020 10:28	12.11.2020 10:30	12.11.2020 10:33
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34
	<i>Analyzed:</i>	12.15.2020 02:56	12.15.2020 03:19	12.15.2020 03:41	12.15.2020 04:04	12.15.2020 04:26	12.15.2020 04:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00403 0.00403	<0.00404 0.00404	<0.00397 0.00397	<0.00404 0.00404	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39
	<i>Analyzed:</i>	12.14.2020 21:05	12.14.2020 21:22	12.14.2020 21:27	12.14.2020 21:33	12.14.2020 21:38	12.14.2020 21:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		351 10.1	222 10.0	265 9.92	208 9.96	468 9.98	198 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00
	<i>Analyzed:</i>	12.15.2020 20:42	12.15.2020 21:03	12.15.2020 21:22	12.16.2020 04:05	12.16.2020 04:25	12.16.2020 04:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.3 50.3	<50.3 50.3	<50.2 50.2
Diesel Range Organics (DRO)		122 50.2	954 50.3	2150 50.2	78.3 50.3	85.6 50.3	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	136 50.3	276 50.2	<50.3 50.3	<50.3 50.3	<50.2 50.2
Total GRO-DRO		122 50.2	954 50.3	2150 50.2	78.3 50.3	85.6 50.3	<50.2 50.2
Total TPH		122 50.2	1090 50.3	2430 50.2	78.3 50.3	85.6 50.3	<50.2 50.2

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 12.17.2020 09:42
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-031	680845-032	680845-033	680845-034	680845-035	
	<i>Field Id:</i>	FS27	FS28	FS29	FS30	SS07	
	<i>Depth:</i>	0.5- ft	0.5- ft	0.6- ft	0.5- ft	0.5- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	12.11.2020 10:58	12.11.2020 11:00	12.11.2020 11:48	12.11.2020 11:50	12.11.2020 11:17	
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	
	<i>Analyzed:</i>	12.15.2020 06:06	12.15.2020 06:28	12.15.2020 06:51	12.15.2020 07:13	12.15.2020 07:36	
	<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	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
m,p-Xylenes		<0.00398 0.00398	<0.00403 0.00403	<0.00401 0.00401	<0.00397 0.00397	<0.00398 0.00398	
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	
	<i>Analyzed:</i>	12.14.2020 21:50	12.14.2020 22:06	12.14.2020 22:12	12.14.2020 22:29	12.14.2020 22:34	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		765 10.0	781 9.92	375 9.96	326 9.96	1180 9.98	
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	
	<i>Analyzed:</i>	12.16.2020 05:05	12.16.2020 05:25	12.16.2020 05:44	12.16.2020 06:04	12.16.2020 06:24	
	<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	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Total GRO-DRO		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Total TPH		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 04.08.2021 09:45
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-001	680845-002	680845-003	680845-004	680845-005	680845-006
	<i>Field Id:</i>	PH01	PH01 A	FS01	FS02	FS03	FS04
	<i>Depth:</i>	1- ft	4- ft	2- ft	2- ft	2- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.09.2020 12:46	12.09.2020 12:56	12.09.2020 14:26	12.10.2020 09:58	12.10.2020 10:00	12.10.2020 11:45
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31
	<i>Analyzed:</i>	12.15.2020 00:46	12.15.2020 01:09	12.15.2020 01:31	12.15.2020 01:54	12.15.2020 02:17	12.15.2020 02:39
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00401 0.00401	<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30
	<i>Analyzed:</i>	12.14.2020 16:42	12.14.2020 16:59	12.14.2020 17:05	12.14.2020 17:10	12.14.2020 17:16	12.14.2020 18:18
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		390 9.92	<10.0 10.0	163 10.1	87.5 9.98	472 9.96	473 9.98
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 13:51	12.15.2020 19:41	12.15.2020 20:01	12.15.2020 20:22	12.15.2020 20:42	12.15.2020 21:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)		529 49.9	<49.9 49.9	78.5 50.0	<50.2 50.2	<50.1 50.1	190 50.0
Motor Oil Range Hydrocarbons (MRO)		69.4 49.9	<49.9 49.9	<50.0 50.0	<50.2 50.2	<50.1 50.1	<50.0 50.0
Total GRO-DRO		529 49.9	<49.9 49.9	78.5 50.0	<50.2 50.2	<50.1 50.1	190 50.0
Total TPH		598 49.9	<49.9 49.9	78.5 50.0	<50.2 50.2	<50.1 50.1	190 50.0

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 04.08.2021 09:45
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-007	680845-008	680845-009	680845-010	680845-011	680845-012
	<i>Field Id:</i>	FS05	FS06	FS07	FS08	FS09	FS10
	<i>Depth:</i>	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.10.2020 11:48	12.10.2020 11:52	12.10.2020 11:55	12.10.2020 11:58	12.10.2020 13:15	12.10.2020 13:18
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31
	<i>Analyzed:</i>	12.15.2020 03:02	12.15.2020 03:25	12.15.2020 03:47	12.15.2020 04:10	12.15.2020 05:30	12.15.2020 05:52
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes		<0.00403 0.00403	<0.00399 0.00399	<0.00399 0.00399	<0.00398 0.00398	<0.00403 0.00403	<0.00404 0.00404
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30
	<i>Analyzed:</i>	12.14.2020 18:23	12.14.2020 18:29	12.14.2020 18:34	12.14.2020 18:40	12.14.2020 18:46	12.14.2020 19:02
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		415 9.94	290 9.98	201 9.92	232 9.98	283 9.90	103 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 21:22	12.15.2020 14:53	12.15.2020 15:13	12.15.2020 15:34	12.15.2020 15:54	12.15.2020 16:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.8 49.8	<50.1 50.1
Diesel Range Organics (DRO)		97.9 50.0	77.5 50.2	83.4 50.0	334 50.1	91.7 49.8	92.5 50.1
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.2 50.2	<50.0 50.0	<50.1 50.1	<49.8 49.8	<50.1 50.1
Total GRO-DRO		97.9 50.0	77.5 50.2	83.4 50.0	334 50.1	91.7 49.8	92.5 50.1
Total TPH		97.9 50.0	77.5 50.2	83.4 50.0	334 50.1	91.7 49.8	92.5 50.1

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 04.08.2021 09:45
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-013	680845-014	680845-015	680845-016	680845-017	680845-018
	<i>Field Id:</i>	FS11	FS12	FS13	FS14	FS15	SW01
	<i>Depth:</i>	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0-2 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.10.2020 13:20	12.10.2020 13:58	12.10.2020 14:00	12.10.2020 14:03	12.10.2020 14:05	12.10.2020 10:14
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 16:31
	<i>Analyzed:</i>	12.15.2020 06:15	12.15.2020 06:37	12.15.2020 07:00	12.15.2020 07:22	12.15.2020 07:45	12.15.2020 08:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00397 0.00397	<0.00399 0.00399	<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:30
	<i>Analyzed:</i>	12.14.2020 19:08	12.14.2020 19:25	12.14.2020 19:30	12.14.2020 19:36	12.14.2020 19:41	12.14.2020 19:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		264 9.92	418 9.98	418 9.96	620 9.98	328 9.96	208 9.96
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 16:36	12.15.2020 16:56	12.15.2020 17:17	12.15.2020 17:37	12.15.2020 18:18	12.15.2020 18:39
	<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)		<50.2 50.2	<49.8 49.8	<49.8 49.8	<50.2 50.2	<50.1 50.1	<50.0 50.0
Diesel Range Organics (DRO)		145 50.2	200 49.8	229 49.8	147 50.2	57.1 50.1	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<49.8 49.8	77.9 49.8	<50.2 50.2	<50.1 50.1	<50.0 50.0
Total GRO-DRO		145 50.2	200 49.8	229 49.8	147 50.2	57.1 50.1	<50.0 50.0
Total TPH		145 50.2	200 49.8	307 49.8	147 50.2	57.1 50.1	<50.0 50.0

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 04.08.2021 09:45
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-019	680845-020	680845-021	680845-022	680845-023	680845-024
	<i>Field Id:</i>	SW02	FS16	FS17	FS18	FS19	FS20
	<i>Depth:</i>	0-2 ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.10.2020 10:17	12.11.2020 09:28	12.11.2020 09:30	12.11.2020 09:32	12.11.2020 09:35	12.11.2020 09:37
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 16:31	12.14.2020 16:31	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34
	<i>Analyzed:</i>	12.15.2020 08:29	12.15.2020 08:52	12.15.2020 01:27	12.15.2020 01:49	12.15.2020 02:12	12.15.2020 02:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00404 0.00404	<0.00401 0.00401
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:30	12.14.2020 13:30	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39
	<i>Analyzed:</i>	12.14.2020 19:52	12.14.2020 19:58	12.14.2020 20:32	12.14.2020 20:48	12.14.2020 20:54	12.14.2020 20:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		136 9.92	395 9.96	382 9.90	453 9.96	630 9.94	497 10.1
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 18:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00
	<i>Analyzed:</i>	12.15.2020 19:00	12.15.2020 19:20	12.16.2020 03:45	12.15.2020 19:41	12.15.2020 20:01	12.15.2020 20:22
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.3 50.3	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<50.2 50.2	207 50.3	113 50.2	205 50.3	124 50.1	348 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	75.8 50.3	<50.2 50.2	<50.3 50.3	<50.1 50.1	55.1 49.9
Total GRO-DRO		<50.2 50.2	207 50.3	113 50.2	205 50.3	124 50.1	348 49.9
Total TPH		<50.2 50.2	283 50.3	113 50.2	205 50.3	124 50.1	403 49.9

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 04.08.2021 09:45
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-025	680845-026	680845-027	680845-028	680845-029	680845-030
	<i>Field Id:</i>	FS21	FS22	FS23	FS24	FS25	FS26
	<i>Depth:</i>	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft	0.6- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	12.11.2020 09:40	12.11.2020 10:23	12.11.2020 10:25	12.11.2020 10:28	12.11.2020 10:30	12.11.2020 10:33
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34
	<i>Analyzed:</i>	12.15.2020 02:56	12.15.2020 03:19	12.15.2020 03:41	12.15.2020 04:04	12.15.2020 04:26	12.15.2020 04:48
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00403 0.00403	<0.00404 0.00404	<0.00397 0.00397	<0.00404 0.00404	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39
	<i>Analyzed:</i>	12.14.2020 21:05	12.14.2020 21:22	12.14.2020 21:27	12.14.2020 21:33	12.14.2020 21:38	12.14.2020 21:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		351 10.1	222 10.0	265 9.92	208 9.96	468 9.98	198 9.94
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 11:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00
	<i>Analyzed:</i>	12.15.2020 20:42	12.15.2020 21:03	12.15.2020 21:22	12.16.2020 04:05	12.16.2020 04:25	12.16.2020 04:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.3 50.3	<50.2 50.2	<50.3 50.3	<50.3 50.3	<50.2 50.2
Diesel Range Organics (DRO)		122 50.2	954 50.3	2150 50.2	78.3 50.3	85.6 50.3	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	136 50.3	276 50.2	<50.3 50.3	<50.3 50.3	<50.2 50.2
Total GRO-DRO		122 50.2	954 50.3	2150 50.2	78.3 50.3	85.6 50.3	<50.2 50.2
Total TPH		122 50.2	1090 50.3	2430 50.2	78.3 50.3	85.6 50.3	<50.2 50.2

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Certificate of Analysis Summary 680845



WSP USA, Dallas, TX

Project Name: EMSU 250

Project Id: TE012920132
Contact: Kalei Jennings
Project Location: Lea County, New Mexico

Date Received in Lab: Fri 12.11.2020 14:32
Report Date: 04.08.2021 09:45
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	680845-031	680845-032	680845-033	680845-034	680845-035	
	<i>Field Id:</i>	FS27	FS28	FS29	FS30	SS07	
	<i>Depth:</i>	0.5- ft	0.5- ft	0.6- ft	0.5- ft	0.5- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	12.11.2020 10:58	12.11.2020 11:00	12.11.2020 11:48	12.11.2020 11:50	12.11.2020 11:17	
BTEX by EPA 8021B	<i>Extracted:</i>	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	12.14.2020 15:34	
	<i>Analyzed:</i>	12.15.2020 06:06	12.15.2020 06:28	12.15.2020 06:51	12.15.2020 07:13	12.15.2020 07:36	
	<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	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Toluene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Ethylbenzene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
m,p-Xylenes		<0.00398 0.00398	<0.00403 0.00403	<0.00401 0.00401	<0.00397 0.00397	<0.00398 0.00398	
o-Xylene		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Total Xylenes		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Total BTEX		<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00198 0.00198	<0.00199 0.00199	
Chloride by EPA 300	<i>Extracted:</i>	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	12.14.2020 13:39	
	<i>Analyzed:</i>	12.14.2020 21:50	12.14.2020 22:06	12.14.2020 22:12	12.14.2020 22:29	12.14.2020 22:34	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		765 10.0	781 9.92	375 9.96	326 9.96	1180 9.98	
TPH by SW8015 Mod	<i>Extracted:</i>	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	12.15.2020 18:00	
	<i>Analyzed:</i>	12.16.2020 05:05	12.16.2020 05:25	12.16.2020 05:44	12.16.2020 06:04	12.16.2020 06:24	
	<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	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Total GRO-DRO		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	
Total TPH		<49.9 49.9	<49.9 49.9	<50.3 50.3	<49.9 49.9	<50.0 50.0	

BRL - Below Reporting Limit

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



Analytical Report 680845

for

WSP USA

Project Manager: Kalei Jennings

EMSU 250

TE012920132

04.08.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



04.08.2021

Project Manager: **Kalei Jennings**

WSP USA

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **680845**

EMSU 250

Project Address: Lea County, New Mexico

Kalei Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 680845. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 680845 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	12.09.2020 12:46	1 ft	680845-001
PH01 A	S	12.09.2020 12:56	4 ft	680845-002
FS01	S	12.09.2020 14:26	2 ft	680845-003
FS02	S	12.10.2020 09:58	2 ft	680845-004
FS03	S	12.10.2020 10:00	2 ft	680845-005
FS04	S	12.10.2020 11:45	0.6 ft	680845-006
FS05	S	12.10.2020 11:48	0.6 ft	680845-007
FS06	S	12.10.2020 11:52	0.6 ft	680845-008
FS07	S	12.10.2020 11:55	0.6 ft	680845-009
FS08	S	12.10.2020 11:58	0.6 ft	680845-010
FS09	S	12.10.2020 13:15	0.6 ft	680845-011
FS10	S	12.10.2020 13:18	0.6 ft	680845-012
FS11	S	12.10.2020 13:20	0.6 ft	680845-013
FS12	S	12.10.2020 13:58	0.6 ft	680845-014
FS13	S	12.10.2020 14:00	0.6 ft	680845-015
FS14	S	12.10.2020 14:03	0.6 ft	680845-016
FS15	S	12.10.2020 14:05	0.6 ft	680845-017
SW01	S	12.10.2020 10:14	0 - 2 ft	680845-018
SW02	S	12.10.2020 10:17	0 - 2 ft	680845-019
FS16	S	12.11.2020 09:28	0.6 ft	680845-020
FS17	S	12.11.2020 09:30	0.6 ft	680845-021
FS18	S	12.11.2020 09:32	0.6 ft	680845-022
FS19	S	12.11.2020 09:35	0.6 ft	680845-023
FS20	S	12.11.2020 09:37	0.6 ft	680845-024
FS21	S	12.11.2020 09:40	0.6 ft	680845-025
FS22	S	12.11.2020 10:23	0.6 ft	680845-026
FS23	S	12.11.2020 10:25	0.6 ft	680845-027
FS24	S	12.11.2020 10:28	0.6 ft	680845-028
FS25	S	12.11.2020 10:30	0.6 ft	680845-029
FS26	S	12.11.2020 10:33	0.6 ft	680845-030
FS27	S	12.11.2020 10:58	0.5 ft	680845-031
FS28	S	12.11.2020 11:00	0.5 ft	680845-032
FS29	S	12.11.2020 11:48	0.6 ft	680845-033
FS30	S	12.11.2020 11:50	0.5 ft	680845-034
SS07	S	12.11.2020 11:17	0.5 ft	680845-035



CASE NARRATIVE

Client Name: WSP USA

Project Name: EMSU 250

Project ID: TE012920132
Work Order Number(s): 680845

Report Date: 04.08.2021
Date Received: 12.11.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **PH01**
Lab Sample Id: 680845-001

Matrix: Soil
Date Collected: 12.09.2020 12:46

Date Received: 12.11.2020 14:32
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	390	9.92	mg/kg	12.14.2020 16:42		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.15.2020 13:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	529	49.9	mg/kg	12.15.2020 13:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	69.4	49.9	mg/kg	12.15.2020 13:51		1
Total GRO-DRO	PHC628	529	49.9	mg/kg	12.15.2020 13:51		1
Total TPH	PHC635	598	49.9	mg/kg	12.15.2020 13:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	12.15.2020 13:51	
o-Terphenyl	84-15-1	98	%	70-135	12.15.2020 13:51	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **PH01**
Lab Sample Id: 680845-001

Matrix: Soil
Date Collected: 12.09.2020 12:46

Date Received: 12.11.2020 14:32
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 00:46	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 00:46	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 00:46	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 00:46	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 00:46	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 00:46	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 00:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.15.2020 00:46	
4-Bromofluorobenzene	460-00-4	120	%	70-130	12.15.2020 00:46	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **PH01 A**
Lab Sample Id: 680845-002

Matrix: Soil
Date Collected: 12.09.2020 12:56

Date Received: 12.11.2020 14:32
Sample Depth: 4 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	12.14.2020 16:59	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145054

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.15.2020 19:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.15.2020 19:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.15.2020 19:41	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.15.2020 19:41	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.15.2020 19:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	12.15.2020 19:41	
o-Terphenyl	84-15-1	109	%	70-135	12.15.2020 19:41	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **PH01 A**
Lab Sample Id: 680845-002

Matrix: Soil
Date Collected: 12.09.2020 12:56

Date Received: 12.11.2020 14:32
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 01:09	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 01:09	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 01:09	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 01:09	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 01:09	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 01:09	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 01:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	130	%	70-130	12.15.2020 01:09	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.15.2020 01:09	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS01**
Lab Sample Id: 680845-003

Matrix: Soil
Date Collected: 12.09.2020 14:26

Date Received: 12.11.2020 14:32
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	163	10.1	mg/kg	12.14.2020 17:05		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145054

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.15.2020 20:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	78.5	50.0	mg/kg	12.15.2020 20:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.15.2020 20:01	U	1
Total GRO-DRO	PHC628	78.5	50.0	mg/kg	12.15.2020 20:01		1
Total TPH	PHC635	78.5	50.0	mg/kg	12.15.2020 20:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	12.15.2020 20:01	
o-Terphenyl	84-15-1	118	%	70-135	12.15.2020 20:01	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS01**
Lab Sample Id: 680845-003

Matrix: Soil
Date Collected: 12.09.2020 14:26

Date Received: 12.11.2020 14:32
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 01:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 01:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 01:31	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.15.2020 01:31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 01:31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 01:31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 01:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.15.2020 01:31	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.15.2020 01:31	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS02**
Lab Sample Id: 680845-004

Matrix: Soil
Date Collected: 12.10.2020 09:58

Date Received: 12.11.2020 14:32
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.5	9.98	mg/kg	12.14.2020 17:10		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145054

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.15.2020 20:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.15.2020 20:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.15.2020 20:22	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.15.2020 20:22	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.15.2020 20:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	12.15.2020 20:22	
o-Terphenyl	84-15-1	106	%	70-135	12.15.2020 20:22	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS02**
Lab Sample Id: 680845-004

Matrix: Soil
Date Collected: 12.10.2020 09:58

Date Received: 12.11.2020 14:32
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 01:54	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 01:54	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 01:54	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.15.2020 01:54	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 01:54	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 01:54	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 01:54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.15.2020 01:54		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.15.2020 01:54		



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS03**
Lab Sample Id: 680845-005

Matrix: Soil
Date Collected: 12.10.2020 10:00

Date Received: 12.11.2020 14:32
Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	472	9.96	mg/kg	12.14.2020 17:16		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145054

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.15.2020 20:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	12.15.2020 20:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.15.2020 20:42	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	12.15.2020 20:42	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	12.15.2020 20:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.15.2020 20:42	
o-Terphenyl	84-15-1	107	%	70-135	12.15.2020 20:42	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS03**
Lab Sample Id: 680845-005

Matrix: Soil
Date Collected: 12.10.2020 10:00

Date Received: 12.11.2020 14:32
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 02:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 02:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 02:17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.15.2020 02:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 02:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 02:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 02:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.15.2020 02:17	
1,4-Difluorobenzene	540-36-3	108	%	70-130	12.15.2020 02:17	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS04**
Lab Sample Id: 680845-006

Matrix: Soil
Date Collected: 12.10.2020 11:45

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	473	9.98	mg/kg	12.14.2020 18:18		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145054

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.15.2020 21:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	190	50.0	mg/kg	12.15.2020 21:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.15.2020 21:03	U	1
Total GRO-DRO	PHC628	190	50.0	mg/kg	12.15.2020 21:03		1
Total TPH	PHC635	190	50.0	mg/kg	12.15.2020 21:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	12.15.2020 21:03	
o-Terphenyl	84-15-1	116	%	70-135	12.15.2020 21:03	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS04**
Lab Sample Id: 680845-006

Matrix: Soil
Date Collected: 12.10.2020 11:45

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 02:39	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 02:39	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 02:39	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 02:39	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 02:39	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 02:39	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 02:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	12.15.2020 02:39	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.15.2020 02:39	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS05**
Lab Sample Id: 680845-007

Matrix: Soil
Date Collected: 12.10.2020 11:48

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	415	9.94	mg/kg	12.14.2020 18:23		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145054

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.15.2020 21:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	97.9	50.0	mg/kg	12.15.2020 21:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.15.2020 21:22	U	1
Total GRO-DRO	PHC628	97.9	50.0	mg/kg	12.15.2020 21:22		1
Total TPH	PHC635	97.9	50.0	mg/kg	12.15.2020 21:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.15.2020 21:22	
o-Terphenyl	84-15-1	118	%	70-135	12.15.2020 21:22	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS05**
Lab Sample Id: 680845-007

Matrix: Soil
Date Collected: 12.10.2020 11:48

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 03:02	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 03:02	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 03:02	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.15.2020 03:02	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 03:02	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 03:02	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 03:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.15.2020 03:02		
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.15.2020 03:02		



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS06**
Lab Sample Id: 680845-008

Matrix: Soil
Date Collected: 12.10.2020 11:52

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	290	9.98	mg/kg	12.14.2020 18:29		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.15.2020 14:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	77.5	50.2	mg/kg	12.15.2020 14:53		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.15.2020 14:53	U	1
Total GRO-DRO	PHC628	77.5	50.2	mg/kg	12.15.2020 14:53		1
Total TPH	PHC635	77.5	50.2	mg/kg	12.15.2020 14:53		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-135	12.15.2020 14:53	
o-Terphenyl	84-15-1	114	%	70-135	12.15.2020 14:53	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS06**
Lab Sample Id: 680845-008

Matrix: Soil
Date Collected: 12.10.2020 11:52

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 03:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 03:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 03:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 03:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 03:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 03:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 03:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.15.2020 03:25		
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.15.2020 03:25		



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS07**
Lab Sample Id: 680845-009

Matrix: Soil
Date Collected: 12.10.2020 11:55

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	201	9.92	mg/kg	12.14.2020 18:34		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.15.2020 15:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	83.4	50.0	mg/kg	12.15.2020 15:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.15.2020 15:13	U	1
Total GRO-DRO	PHC628	83.4	50.0	mg/kg	12.15.2020 15:13		1
Total TPH	PHC635	83.4	50.0	mg/kg	12.15.2020 15:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.15.2020 15:13	
o-Terphenyl	84-15-1	100	%	70-135	12.15.2020 15:13	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS07**
Lab Sample Id: 680845-009

Matrix: Soil
Date Collected: 12.10.2020 11:55

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 03:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 03:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 03:47	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 03:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 03:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 03:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 03:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	12.15.2020 03:47	
4-Bromofluorobenzene	460-00-4	125	%	70-130	12.15.2020 03:47	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS08**
Lab Sample Id: 680845-010

Matrix: Soil
Date Collected: 12.10.2020 11:58

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	232	9.98	mg/kg	12.14.2020 18:40		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.15.2020 15:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	334	50.1	mg/kg	12.15.2020 15:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.15.2020 15:34	U	1
Total GRO-DRO	PHC628	334	50.1	mg/kg	12.15.2020 15:34		1
Total TPH	PHC635	334	50.1	mg/kg	12.15.2020 15:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	12.15.2020 15:34	
o-Terphenyl	84-15-1	94	%	70-135	12.15.2020 15:34	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS08**
Lab Sample Id: 680845-010

Matrix: Soil
Date Collected: 12.10.2020 11:58

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 04:10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 04:10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 04:10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 04:10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 04:10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 04:10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 04:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.15.2020 04:10	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.15.2020 04:10	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS09**
Lab Sample Id: 680845-011

Matrix: Soil
Date Collected: 12.10.2020 13:15

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	283	9.90	mg/kg	12.14.2020 18:46		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.15.2020 15:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	91.7	49.8	mg/kg	12.15.2020 15:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.15.2020 15:54	U	1
Total GRO-DRO	PHC628	91.7	49.8	mg/kg	12.15.2020 15:54		1
Total TPH	PHC635	91.7	49.8	mg/kg	12.15.2020 15:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	12.15.2020 15:54	
o-Terphenyl	84-15-1	104	%	70-135	12.15.2020 15:54	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS09**
Lab Sample Id: 680845-011

Matrix: Soil
Date Collected: 12.10.2020 13:15

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 05:30	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 05:30	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 05:30	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.15.2020 05:30	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 05:30	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 05:30	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 05:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	116	%	70-130	12.15.2020 05:30	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.15.2020 05:30	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS10**
Lab Sample Id: 680845-012

Matrix: Soil
Date Collected: 12.10.2020 13:18

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	103	10.1	mg/kg	12.14.2020 19:02		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.15.2020 16:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	92.5	50.1	mg/kg	12.15.2020 16:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.15.2020 16:15	U	1
Total GRO-DRO	PHC628	92.5	50.1	mg/kg	12.15.2020 16:15		1
Total TPH	PHC635	92.5	50.1	mg/kg	12.15.2020 16:15		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	12.15.2020 16:15	
o-Terphenyl	84-15-1	106	%	70-135	12.15.2020 16:15	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS10**
Lab Sample Id: 680845-012

Matrix: Soil
Date Collected: 12.10.2020 13:18

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 05:52	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 05:52	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 05:52	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.15.2020 05:52	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 05:52	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 05:52	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 05:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	12.15.2020 05:52	
1,4-Difluorobenzene	540-36-3	103	%	70-130	12.15.2020 05:52	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS11**
Lab Sample Id: 680845-013

Matrix: Soil
Date Collected: 12.10.2020 13:20

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	264	9.92	mg/kg	12.14.2020 19:08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.15.2020 16:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	145	50.2	mg/kg	12.15.2020 16:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.15.2020 16:36	U	1
Total GRO-DRO	PHC628	145	50.2	mg/kg	12.15.2020 16:36		1
Total TPH	PHC635	145	50.2	mg/kg	12.15.2020 16:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.15.2020 16:36	
o-Terphenyl	84-15-1	98	%	70-135	12.15.2020 16:36	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS11**
Lab Sample Id: 680845-013

Matrix: Soil
Date Collected: 12.10.2020 13:20

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.15.2020 06:15	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.15.2020 06:15	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.15.2020 06:15	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.15.2020 06:15	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.15.2020 06:15	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.15.2020 06:15	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.15.2020 06:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.15.2020 06:15	
4-Bromofluorobenzene	460-00-4	115	%	70-130	12.15.2020 06:15	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS12**
Lab Sample Id: 680845-014

Matrix: Soil
Date Collected: 12.10.2020 13:58

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	418	9.98	mg/kg	12.14.2020 19:25		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.15.2020 16:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	200	49.8	mg/kg	12.15.2020 16:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.15.2020 16:56	U	1
Total GRO-DRO	PHC628	200	49.8	mg/kg	12.15.2020 16:56		1
Total TPH	PHC635	200	49.8	mg/kg	12.15.2020 16:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.15.2020 16:56	
o-Terphenyl	84-15-1	106	%	70-135	12.15.2020 16:56	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS12**
Lab Sample Id: 680845-014

Matrix: Soil
Date Collected: 12.10.2020 13:58

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.15.2020 06:37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.15.2020 06:37	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.15.2020 06:37	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.15.2020 06:37	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.15.2020 06:37	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.15.2020 06:37	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.15.2020 06:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.15.2020 06:37	
4-Bromofluorobenzene	460-00-4	119	%	70-130	12.15.2020 06:37	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS13**
Lab Sample Id: 680845-015

Matrix: Soil
Date Collected: 12.10.2020 14:00

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	418	9.96	mg/kg	12.14.2020 19:30		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.15.2020 17:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	229	49.8	mg/kg	12.15.2020 17:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	77.9	49.8	mg/kg	12.15.2020 17:17		1
Total GRO-DRO	PHC628	229	49.8	mg/kg	12.15.2020 17:17		1
Total TPH	PHC635	307	49.8	mg/kg	12.15.2020 17:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	12.15.2020 17:17	
o-Terphenyl	84-15-1	118	%	70-135	12.15.2020 17:17	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS13**
Lab Sample Id: 680845-015

Matrix: Soil
Date Collected: 12.10.2020 14:00

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 07:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 07:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 07:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 07:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 07:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 07:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 07:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.15.2020 07:00	
4-Bromofluorobenzene	460-00-4	122	%	70-130	12.15.2020 07:00	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS14**
Lab Sample Id: 680845-016

Matrix: Soil
Date Collected: 12.10.2020 14:03

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	620	9.98	mg/kg	12.14.2020 19:36		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.15.2020 17:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	147	50.2	mg/kg	12.15.2020 17:37		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.15.2020 17:37	U	1
Total GRO-DRO	PHC628	147	50.2	mg/kg	12.15.2020 17:37		1
Total TPH	PHC635	147	50.2	mg/kg	12.15.2020 17:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.15.2020 17:37	
o-Terphenyl	84-15-1	96	%	70-135	12.15.2020 17:37	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS14**
Lab Sample Id: 680845-016

Matrix: Soil
Date Collected: 12.10.2020 14:03

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 07:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 07:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 07:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 07:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 07:22	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 07:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 07:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	124	%	70-130	12.15.2020 07:22	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.15.2020 07:22	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS15**
Lab Sample Id: 680845-017

Matrix: Soil
Date Collected: 12.10.2020 14:05

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	328	9.96	mg/kg	12.14.2020 19:41		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.15.2020 18:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	57.1	50.1	mg/kg	12.15.2020 18:18		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.15.2020 18:18	U	1
Total GRO-DRO	PHC628	57.1	50.1	mg/kg	12.15.2020 18:18		1
Total TPH	PHC635	57.1	50.1	mg/kg	12.15.2020 18:18		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	12.15.2020 18:18	
o-Terphenyl	84-15-1	109	%	70-135	12.15.2020 18:18	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS15**
Lab Sample Id: 680845-017

Matrix: Soil
Date Collected: 12.10.2020 14:05

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.15.2020 07:45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.15.2020 07:45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.15.2020 07:45	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.15.2020 07:45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.15.2020 07:45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.15.2020 07:45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.15.2020 07:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	12.15.2020 07:45	
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.15.2020 07:45	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **SW01**
Lab Sample Id: 680845-018

Matrix: Soil
Date Collected: 12.10.2020 10:14

Date Received: 12.11.2020 14:32
Sample Depth: 0 - 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	208	9.96	mg/kg	12.14.2020 19:47		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.15.2020 18:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.15.2020 18:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.15.2020 18:39	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.15.2020 18:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.15.2020 18:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	12.15.2020 18:39	
o-Terphenyl	84-15-1	107	%	70-135	12.15.2020 18:39	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **SW01**
Lab Sample Id: 680845-018

Matrix: Soil
Date Collected: 12.10.2020 10:14

Date Received: 12.11.2020 14:32
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 08:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 08:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 08:07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 08:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 08:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 08:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 08:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	127	%	70-130	12.15.2020 08:07		
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.15.2020 08:07		



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **SW02**
Lab Sample Id: 680845-019

Matrix: Soil
Date Collected: 12.10.2020 10:17

Date Received: 12.11.2020 14:32
Sample Depth: 0 - 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	136	9.92	mg/kg	12.14.2020 19:52		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.15.2020 19:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.15.2020 19:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.15.2020 19:00	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.15.2020 19:00	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.15.2020 19:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-135	12.15.2020 19:00	
o-Terphenyl	84-15-1	115	%	70-135	12.15.2020 19:00	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **SW02**
Lab Sample Id: 680845-019

Matrix: Soil
Date Collected: 12.10.2020 10:17

Date Received: 12.11.2020 14:32
Sample Depth: 0 - 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 08:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 08:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 08:29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 08:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 08:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 08:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 08:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.15.2020 08:29	
4-Bromofluorobenzene	460-00-4	117	%	70-130	12.15.2020 08:29	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS16**
Lab Sample Id: 680845-020

Matrix: Soil
Date Collected: 12.11.2020 09:28

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:30

% Moisture:
Basis: Wet Weight

Seq Number: 3144847

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	395	9.96	mg/kg	12.14.2020 19:58		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.15.2020 19:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	207	50.3	mg/kg	12.15.2020 19:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	75.8	50.3	mg/kg	12.15.2020 19:20		1
Total GRO-DRO	PHC628	207	50.3	mg/kg	12.15.2020 19:20		1
Total TPH	PHC635	283	50.3	mg/kg	12.15.2020 19:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.15.2020 19:20	
o-Terphenyl	84-15-1	99	%	70-135	12.15.2020 19:20	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS16**
Lab Sample Id: 680845-020

Matrix: Soil
Date Collected: 12.11.2020 09:28

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 16:31

% Moisture:
Basis: Wet Weight

Seq Number: 3144889

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 08:52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 08:52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 08:52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 08:52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 08:52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 08:52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 08:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	12.15.2020 08:52	
4-Bromofluorobenzene	460-00-4	121	%	70-130	12.15.2020 08:52	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS17**
Lab Sample Id: 680845-021

Matrix: Soil
Date Collected: 12.11.2020 09:30

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	382	9.90	mg/kg	12.14.2020 20:32		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.16.2020 03:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	113	50.2	mg/kg	12.16.2020 03:45		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.16.2020 03:45	U	1
Total GRO-DRO	PHC628	113	50.2	mg/kg	12.16.2020 03:45		1
Total TPH	PHC635	113	50.2	mg/kg	12.16.2020 03:45		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	12.16.2020 03:45	
o-Terphenyl	84-15-1	110	%	70-135	12.16.2020 03:45	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS17**
Lab Sample Id: 680845-021

Matrix: Soil
Date Collected: 12.11.2020 09:30

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 01:27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 01:27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 01:27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 01:27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 01:27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 01:27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 01:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	89	%	70-130	12.15.2020 01:27		
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.15.2020 01:27		



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS18**
Lab Sample Id: 680845-022

Matrix: Soil
Date Collected: 12.11.2020 09:32

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	453	9.96	mg/kg	12.14.2020 20:48		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.15.2020 19:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	205	50.3	mg/kg	12.15.2020 19:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.15.2020 19:41	U	1
Total GRO-DRO	PHC628	205	50.3	mg/kg	12.15.2020 19:41		1
Total TPH	PHC635	205	50.3	mg/kg	12.15.2020 19:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	12.15.2020 19:41	
o-Terphenyl	84-15-1	115	%	70-135	12.15.2020 19:41	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS18**
Lab Sample Id: 680845-022

Matrix: Soil
Date Collected: 12.11.2020 09:32

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 01:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 01:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 01:49	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.15.2020 01:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 01:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 01:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 01:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.15.2020 01:49		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.15.2020 01:49		



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS19**
Lab Sample Id: 680845-023

Matrix: Soil
Date Collected: 12.11.2020 09:35

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	630	9.94	mg/kg	12.14.2020 20:54		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	12.15.2020 20:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	124	50.1	mg/kg	12.15.2020 20:01		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	12.15.2020 20:01	U	1
Total GRO-DRO	PHC628	124	50.1	mg/kg	12.15.2020 20:01		1
Total TPH	PHC635	124	50.1	mg/kg	12.15.2020 20:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	12.15.2020 20:01	
o-Terphenyl	84-15-1	105	%	70-135	12.15.2020 20:01	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS19**
Lab Sample Id: 680845-023

Matrix: Soil
Date Collected: 12.11.2020 09:35

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 02:12	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 02:12	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 02:12	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.15.2020 02:12	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 02:12	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 02:12	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 02:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.15.2020 02:12		
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.15.2020 02:12		



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS20**
Lab Sample Id: 680845-024

Matrix: Soil
Date Collected: 12.11.2020 09:37

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	497	10.1	mg/kg	12.14.2020 20:59		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.15.2020 20:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	348	49.9	mg/kg	12.15.2020 20:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	55.1	49.9	mg/kg	12.15.2020 20:22		1
Total GRO-DRO	PHC628	348	49.9	mg/kg	12.15.2020 20:22		1
Total TPH	PHC635	403	49.9	mg/kg	12.15.2020 20:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	12.15.2020 20:22	
o-Terphenyl	84-15-1	103	%	70-135	12.15.2020 20:22	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS20**
Lab Sample Id: 680845-024

Matrix: Soil
Date Collected: 12.11.2020 09:37

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 02:34	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 02:34	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 02:34	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.15.2020 02:34	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 02:34	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 02:34	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 02:34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	94	%	70-130	12.15.2020 02:34		
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.15.2020 02:34		



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS21**
Lab Sample Id: 680845-025

Matrix: Soil
Date Collected: 12.11.2020 09:40

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	351	10.1	mg/kg	12.14.2020 21:05		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.15.2020 20:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	122	50.2	mg/kg	12.15.2020 20:42		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.15.2020 20:42	U	1
Total GRO-DRO	PHC628	122	50.2	mg/kg	12.15.2020 20:42		1
Total TPH	PHC635	122	50.2	mg/kg	12.15.2020 20:42		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.15.2020 20:42	
o-Terphenyl	84-15-1	101	%	70-135	12.15.2020 20:42	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS21**
Lab Sample Id: 680845-025

Matrix: Soil
Date Collected: 12.11.2020 09:40

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.15.2020 02:56	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.15.2020 02:56	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.15.2020 02:56	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.15.2020 02:56	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.15.2020 02:56	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.15.2020 02:56	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.15.2020 02:56	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.15.2020 02:56		
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.15.2020 02:56		



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS22**
Lab Sample Id: 680845-026

Matrix: Soil
Date Collected: 12.11.2020 10:23

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	222	10.0	mg/kg	12.14.2020 21:22		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.15.2020 21:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	954	50.3	mg/kg	12.15.2020 21:03		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	136	50.3	mg/kg	12.15.2020 21:03		1
Total GRO-DRO	PHC628	954	50.3	mg/kg	12.15.2020 21:03		1
Total TPH	PHC635	1090	50.3	mg/kg	12.15.2020 21:03		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	12.15.2020 21:03	
o-Terphenyl	84-15-1	117	%	70-135	12.15.2020 21:03	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS22**
Lab Sample Id: 680845-026

Matrix: Soil
Date Collected: 12.11.2020 10:23

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 03:19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 03:19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 03:19	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.15.2020 03:19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 03:19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 03:19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 03:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.15.2020 03:19	
1,4-Difluorobenzene	540-36-3	98	%	70-130	12.15.2020 03:19	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS23**
Lab Sample Id: 680845-027

Matrix: Soil
Date Collected: 12.11.2020 10:25

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	265	9.92	mg/kg	12.14.2020 21:27		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 11:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145071

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.15.2020 21:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	2150	50.2	mg/kg	12.15.2020 21:22		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	276	50.2	mg/kg	12.15.2020 21:22		1
Total GRO-DRO	PHC628	2150	50.2	mg/kg	12.15.2020 21:22		1
Total TPH	PHC635	2430	50.2	mg/kg	12.15.2020 21:22		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-135	12.15.2020 21:22	
o-Terphenyl	84-15-1	119	%	70-135	12.15.2020 21:22	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS23**
Lab Sample Id: 680845-027

Matrix: Soil
Date Collected: 12.11.2020 10:25

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 03:41	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 03:41	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 03:41	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.15.2020 03:41	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 03:41	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 03:41	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 03:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.15.2020 03:41		
1,4-Difluorobenzene	540-36-3	96	%	70-130	12.15.2020 03:41		



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS24**
Lab Sample Id: 680845-028

Matrix: Soil
Date Collected: 12.11.2020 10:28

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	208	9.96	mg/kg	12.14.2020 21:33		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.16.2020 04:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	78.3	50.3	mg/kg	12.16.2020 04:05		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.16.2020 04:05	U	1
Total GRO-DRO	PHC628	78.3	50.3	mg/kg	12.16.2020 04:05		1
Total TPH	PHC635	78.3	50.3	mg/kg	12.16.2020 04:05		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.16.2020 04:05	
o-Terphenyl	84-15-1	112	%	70-135	12.16.2020 04:05	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS24**
Lab Sample Id: 680845-028

Matrix: Soil
Date Collected: 12.11.2020 10:28

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.15.2020 04:04	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.15.2020 04:04	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.15.2020 04:04	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.15.2020 04:04	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.15.2020 04:04	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.15.2020 04:04	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.15.2020 04:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	12.15.2020 04:04	
4-Bromofluorobenzene	460-00-4	128	%	70-130	12.15.2020 04:04	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS25**
Lab Sample Id: 680845-029

Matrix: Soil
Date Collected: 12.11.2020 10:30

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	468	9.98	mg/kg	12.14.2020 21:38		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.16.2020 04:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	85.6	50.3	mg/kg	12.16.2020 04:25		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.16.2020 04:25	U	1
Total GRO-DRO	PHC628	85.6	50.3	mg/kg	12.16.2020 04:25		1
Total TPH	PHC635	85.6	50.3	mg/kg	12.16.2020 04:25		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	12.16.2020 04:25	
o-Terphenyl	84-15-1	102	%	70-135	12.16.2020 04:25	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS25**
Lab Sample Id: 680845-029

Matrix: Soil
Date Collected: 12.11.2020 10:30

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 04:26	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 04:26	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 04:26	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	12.15.2020 04:26	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 04:26	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 04:26	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 04:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.15.2020 04:26		
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.15.2020 04:26		



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS26**
Lab Sample Id: 680845-030

Matrix: Soil
Date Collected: 12.11.2020 10:33

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	198	9.94	mg/kg	12.14.2020 21:44		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.16.2020 04:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.16.2020 04:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.16.2020 04:45	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	12.16.2020 04:45	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	12.16.2020 04:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	12.16.2020 04:45	
o-Terphenyl	84-15-1	110	%	70-135	12.16.2020 04:45	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS26**
Lab Sample Id: 680845-030

Matrix: Soil
Date Collected: 12.11.2020 10:33

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 04:48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 04:48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 04:48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 04:48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 04:48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 04:48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 04:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	12.15.2020 04:48	
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.15.2020 04:48	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: FS27
Lab Sample Id: 680845-031

Matrix: Soil
Date Collected: 12.11.2020 10:58

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	765	10.0	mg/kg	12.14.2020 21:50		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.16.2020 05:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.16.2020 05:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.16.2020 05:05	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.16.2020 05:05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.16.2020 05:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.16.2020 05:05	
o-Terphenyl	84-15-1	118	%	70-135	12.16.2020 05:05	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS27**
Lab Sample Id: 680845-031

Matrix: Soil
Date Collected: 12.11.2020 10:58

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 06:06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 06:06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 06:06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 06:06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 06:06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 06:06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 06:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.15.2020 06:06		
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.15.2020 06:06		



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS28**
Lab Sample Id: 680845-032

Matrix: Soil
Date Collected: 12.11.2020 11:00

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	781	9.92	mg/kg	12.14.2020 22:06		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.16.2020 05:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.16.2020 05:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.16.2020 05:25	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.16.2020 05:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.16.2020 05:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	12.16.2020 05:25	
o-Terphenyl	84-15-1	108	%	70-135	12.16.2020 05:25	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS28**
Lab Sample Id: 680845-032

Matrix: Soil
Date Collected: 12.11.2020 11:00

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.15.2020 06:28	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.15.2020 06:28	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.15.2020 06:28	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.15.2020 06:28	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.15.2020 06:28	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.15.2020 06:28	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.15.2020 06:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	79	%	70-130	12.15.2020 06:28	
4-Bromofluorobenzene	460-00-4	86	%	70-130	12.15.2020 06:28	



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WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS29**
Lab Sample Id: 680845-033

Matrix: Soil
Date Collected: 12.11.2020 11:48

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	375	9.96	mg/kg	12.14.2020 22:12		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	12.16.2020 05:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	12.16.2020 05:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	12.16.2020 05:44	U	1
Total GRO-DRO	PHC628	<50.3	50.3	mg/kg	12.16.2020 05:44	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	12.16.2020 05:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	12.16.2020 05:44	
o-Terphenyl	84-15-1	106	%	70-135	12.16.2020 05:44	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS29**
Lab Sample Id: 680845-033

Matrix: Soil
Date Collected: 12.11.2020 11:48

Date Received: 12.11.2020 14:32
Sample Depth: 0.6 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.15.2020 06:51	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.15.2020 06:51	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.15.2020 06:51	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.15.2020 06:51	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.15.2020 06:51	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.15.2020 06:51	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.15.2020 06:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	12.15.2020 06:51	
4-Bromofluorobenzene	460-00-4	91	%	70-130	12.15.2020 06:51	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS30**
Lab Sample Id: 680845-034

Matrix: Soil
Date Collected: 12.11.2020 11:50

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	326	9.96	mg/kg	12.14.2020 22:29		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.16.2020 06:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.16.2020 06:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.16.2020 06:04	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	12.16.2020 06:04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	12.16.2020 06:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	12.16.2020 06:04	
o-Terphenyl	84-15-1	110	%	70-135	12.16.2020 06:04	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **FS30**
Lab Sample Id: 680845-034

Matrix: Soil
Date Collected: 12.11.2020 11:50

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.15.2020 07:13	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.15.2020 07:13	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.15.2020 07:13	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.15.2020 07:13	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.15.2020 07:13	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.15.2020 07:13	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.15.2020 07:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	12.15.2020 07:13	
1,4-Difluorobenzene	540-36-3	95	%	70-130	12.15.2020 07:13	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **SS07**
Lab Sample Id: 680845-035

Matrix: Soil
Date Collected: 12.11.2020 11:17

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 13:39

% Moisture:
Basis: Wet Weight

Seq Number: 3144851

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1180	9.98	mg/kg	12.14.2020 22:34		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: CAC

Analyst: CAC

Date Prep: 12.15.2020 18:00

% Moisture:
Basis: Wet Weight

Seq Number: 3145055

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.16.2020 06:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.16.2020 06:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.16.2020 06:24	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	12.16.2020 06:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	12.16.2020 06:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	12.16.2020 06:24	
o-Terphenyl	84-15-1	101	%	70-135	12.16.2020 06:24	



Certificate of Analytical Results 680845

WSP USA, Dallas, TX

EMSU 250

Sample Id: **SS07**
Lab Sample Id: 680845-035

Matrix: Soil
Date Collected: 12.11.2020 11:17

Date Received: 12.11.2020 14:32
Sample Depth: 0.5 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.14.2020 15:34

% Moisture:
Basis: Wet Weight

Seq Number: 3144894

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.15.2020 07:36	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.15.2020 07:36	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.15.2020 07:36	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.15.2020 07:36	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.15.2020 07:36	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.15.2020 07:36	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.15.2020 07:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.15.2020 07:36	
4-Bromofluorobenzene	460-00-4	85	%	70-130	12.15.2020 07:36	



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



WSP USA

EMSU 250

Analytical Method: Chloride by EPA 300

Seq Number: 3144847

MB Sample Id: 7717072-1-BLK

Matrix: Solid

LCS Sample Id: 7717072-1-BKS

Prep Method: E300P

Date Prep: 12.14.2020

LCSD Sample Id: 7717072-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	259	104	261	104	90-110	1	20	mg/kg	12.14.2020 16:31	

Analytical Method: Chloride by EPA 300

Seq Number: 3144851

MB Sample Id: 7717073-1-BLK

Matrix: Solid

LCS Sample Id: 7717073-1-BKS

Prep Method: E300P

Date Prep: 12.14.2020

LCSD Sample Id: 7717073-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	266	106	263	105	90-110	1	20	mg/kg	12.14.2020 20:20	

Analytical Method: Chloride by EPA 300

Seq Number: 3144847

Parent Sample Id: 680845-001

Matrix: Soil

MS Sample Id: 680845-001 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680845-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	390	199	578	94	583	97	90-110	1	20	mg/kg	12.14.2020 16:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3144847

Parent Sample Id: 680845-011

Matrix: Soil

MS Sample Id: 680845-011 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680845-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	283	200	499	108	488	101	90-110	2	20	mg/kg	12.14.2020 18:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3144851

Parent Sample Id: 680845-021

Matrix: Soil

MS Sample Id: 680845-021 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680845-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	382	199	592	106	592	106	90-110	0	20	mg/kg	12.14.2020 20:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3144851

Parent Sample Id: 680845-031

Matrix: Soil

MS Sample Id: 680845-031 S

Prep Method: E300P

Date Prep: 12.14.2020

MSD Sample Id: 680845-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	765	201	972	103	972	102	90-110	0	20	mg/kg	12.14.2020 21:55	

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

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

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

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



WSP USA

EMSU 250

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145054

MB Sample Id: 7717211-1-BLK

Matrix: Solid

LCS Sample Id: 7717211-1-BKS

Prep Method: SW8015P

Date Prep: 12.15.2020

LCSD Sample Id: 7717211-1-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	1090	109	1180	118	70-135	8	35	mg/kg	12.15.2020 13:10	
Diesel Range Organics (DRO)	<50.0	1000	938	94	1060	106	70-135	12	35	mg/kg	12.15.2020 13:10	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	113		77			108			70-135	%	12.15.2020 13:10	
o-Terphenyl	114		72			105			70-135	%	12.15.2020 13:10	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145071

MB Sample Id: 7717213-1-BLK

Matrix: Solid

LCS Sample Id: 7717213-1-BKS

Prep Method: SW8015P

Date Prep: 12.15.2020

LCSD Sample Id: 7717213-1-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	947	95	919	92	70-135	3	35	mg/kg	12.15.2020 13:10	
Diesel Range Organics (DRO)	<50.0	1000	978	98	1020	102	70-135	4	35	mg/kg	12.15.2020 13:10	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	106		101			107			70-135	%	12.15.2020 13:10	
o-Terphenyl	116		98			110			70-135	%	12.15.2020 13:10	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145055

MB Sample Id: 7717217-1-BLK

Matrix: Solid

LCS Sample Id: 7717217-1-BKS

Prep Method: SW8015P

Date Prep: 12.15.2020

LCSD Sample Id: 7717217-1-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	1080	108	1160	116	70-135	7	35	mg/kg	12.15.2020 22:24	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1160	116	70-135	4	35	mg/kg	12.15.2020 22:24	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag		LCSD %Rec	LCSD Flag		Limits	Units	Analysis Date	
1-Chlorooctane	113		96			107			70-135	%	12.15.2020 22:24	
o-Terphenyl	115		110			112			70-135	%	12.15.2020 22:24	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145054

Matrix: Solid

MB Sample Id: 7717211-1-BLK

Prep Method: SW8015P

Date Prep: 12.15.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.15.2020 12:49	

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

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

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

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



WSP USA

EMSU 250

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145071

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.15.2020

MB Sample Id: 7717213-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

**MB
Result**

<50.0

Units

mg/kg

**Analysis
Date**

12.15.2020 12:49

Flag**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3145055

Matrix: Solid

Prep Method: SW8015P

Date Prep: 12.15.2020

MB Sample Id: 7717217-1-BLK

Parameter

Motor Oil Range Hydrocarbons (MRO)

**MB
Result**

<50.0

Units

mg/kg

**Analysis
Date**

12.15.2020 22:03

Flag**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3145054

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.15.2020

Parent Sample Id: 680743-011

MS Sample Id: 680743-011 S

MSD Sample Id: 680743-011 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

**Parent
Result**

<50.1

**Spike
Amount**

1000

**MS
Result**

1100

**MS
%Rec**

110

**MSD
Result**

1120

**MSD
%Rec**

112

Limits

70-135

%RPD

2

**RPD
Limit**

35

Units

mg/kg

**Analysis
Date**

12.15.2020 14:11

Flag

Diesel Range Organics (DRO)

<50.1

1000

999

100

1050

105

70-135

5

35

mg/kg

12.15.2020 14:11

Surrogate

1-Chlorooctane

**MS
%Rec**

114

**MS
Flag****MSD
%Rec**

105

**MSD
Flag****Limits**

70-135

Units

%

**Analysis
Date**

12.15.2020 14:11

o-Terphenyl

106

112

70-135

%

12.15.2020 14:11

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145071

Matrix: Soil

Prep Method: SW8015P

Date Prep: 12.15.2020

Parent Sample Id: 680845-001

MS Sample Id: 680845-001 S

MSD Sample Id: 680845-001 SD

Parameter

Gasoline Range Hydrocarbons (GRO)

**Parent
Result**

<49.9

**Spike
Amount**

997

**MS
Result**

1010

**MS
%Rec**

101

**MSD
Result**

1100

**MSD
%Rec**

110

Limits

70-135

%RPD

9

**RPD
Limit**

35

Units

mg/kg

**Analysis
Date**

12.15.2020 14:11

Flag

Diesel Range Organics (DRO)

529

997

1540

101

1570

104

70-135

2

35

mg/kg

12.15.2020 14:11

Surrogate

1-Chlorooctane

**MS
%Rec**

114

**MS
Flag****MSD
%Rec**

101

**MSD
Flag****Limits**

70-135

Units

%

**Analysis
Date**

12.15.2020 14:11

o-Terphenyl

108

106

70-135

%

12.15.2020 14:11

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



WSP USA

EMSU 250

Analytical Method: TPH by SW8015 Mod

Seq Number: 3145055

Parent Sample Id: 681194-001

Matrix: Soil

MS Sample Id: 681194-001 S

Prep Method: SW8015P

Date Prep: 12.15.2020

MSD Sample Id: 681194-001 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	1000	1050	105	991	99	70-135	6	35	mg/kg	12.15.2020 23:24	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1080	108	70-135	4	35	mg/kg	12.15.2020 23:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	109		99		70-135	%	12.15.2020 23:24
o-Terphenyl	104		108		70-135	%	12.15.2020 23:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3144894

MB Sample Id: 7717071-1-BLK

Matrix: Solid

LCS Sample Id: 7717071-1-BKS

Prep Method: SW5035A

Date Prep: 12.14.2020

LCSD Sample Id: 7717071-1-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	0.0921	92	0.0978	98	70-130	6	35	mg/kg	12.14.2020 23:24	
Toluene	<0.00200	0.100	0.0884	88	0.0942	94	70-130	6	35	mg/kg	12.14.2020 23:24	
Ethylbenzene	<0.00200	0.100	0.0808	81	0.0874	87	71-129	8	35	mg/kg	12.14.2020 23:24	
m,p-Xylenes	<0.00400	0.200	0.164	82	0.178	89	70-135	8	35	mg/kg	12.14.2020 23:24	
o-Xylene	<0.00200	0.100	0.0829	83	0.0910	91	71-133	9	35	mg/kg	12.14.2020 23:24	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		95		96		70-130	%	12.14.2020 23:24
4-Bromofluorobenzene	88		87		89		70-130	%	12.14.2020 23:24

Analytical Method: BTEX by EPA 8021B

Seq Number: 3144889

MB Sample Id: 7717070-1-BLK

Matrix: Solid

LCS Sample Id: 7717070-1-BKS

Prep Method: SW5035A

Date Prep: 12.14.2020

LCSD Sample Id: 7717070-1-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	0.0873	87	0.0948	95	70-130	8	35	mg/kg	12.14.2020 22:41	
Toluene	<0.00200	0.100	0.0837	84	0.0878	88	70-130	5	35	mg/kg	12.14.2020 22:41	
Ethylbenzene	<0.00200	0.100	0.0862	86	0.0918	92	71-129	6	35	mg/kg	12.14.2020 22:41	
m,p-Xylenes	<0.00400	0.200	0.177	89	0.190	95	70-135	7	35	mg/kg	12.14.2020 22:41	
o-Xylene	<0.00200	0.100	0.0867	87	0.0959	96	71-133	10	35	mg/kg	12.14.2020 22:41	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		95		100		70-130	%	12.14.2020 22:41
4-Bromofluorobenzene	120		107		115		70-130	%	12.14.2020 22:41

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

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

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

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



WSP USA

EMSU 250

Analytical Method: BTEX by EPA 8021B

Seq Number: 3144894

Parent Sample Id: 680845-021

Matrix: Soil

MS Sample Id: 680845-021 S

Prep Method: SW5035A

Date Prep: 12.14.2020

MSD Sample Id: 680845-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0960	96	0.0951	95	70-130	1	35	mg/kg	12.15.2020 08:43	
Toluene	<0.00200	0.0998	0.0912	91	0.0907	91	70-130	1	35	mg/kg	12.15.2020 08:43	
Ethylbenzene	<0.00200	0.0998	0.0838	84	0.0831	83	71-129	1	35	mg/kg	12.15.2020 08:43	
m,p-Xylenes	<0.00399	0.200	0.171	86	0.168	84	70-135	2	35	mg/kg	12.15.2020 08:43	
o-Xylene	<0.00200	0.0998	0.0858	86	0.0856	86	71-133	0	35	mg/kg	12.15.2020 08:43	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	95		95		70-130	%	12.15.2020 08:43
4-Bromofluorobenzene	83		89		70-130	%	12.15.2020 08:43

Analytical Method: BTEX by EPA 8021B

Seq Number: 3144889

Parent Sample Id: 680845-001

Matrix: Soil

MS Sample Id: 680845-001 S

Prep Method: SW5035A

Date Prep: 12.14.2020

MSD Sample Id: 680845-001 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	0.0929	93	0.0893	90	70-130	4	35	mg/kg	12.15.2020 09:14	
Toluene	<0.00200	0.0998	0.0875	88	0.0832	84	70-130	5	35	mg/kg	12.15.2020 09:14	
Ethylbenzene	<0.00200	0.0998	0.0889	89	0.0857	86	71-129	4	35	mg/kg	12.15.2020 09:14	
m,p-Xylenes	<0.00399	0.200	0.183	92	0.174	87	70-135	5	35	mg/kg	12.15.2020 09:14	
o-Xylene	<0.00200	0.0998	0.0917	92	0.0857	86	71-133	7	35	mg/kg	12.15.2020 09:14	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		97		70-130	%	12.15.2020 09:14
4-Bromofluorobenzene	110		110		70-130	%	12.15.2020 09:14

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

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

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

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



Chain of Custody

Work Order No: 1680845

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 Casabad, NM (432) 704-5440
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Project Manager:	Kale Jennings	Bill to: (if different)	Kyle Littlell
Company Name:	WSP, Permian Office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Casabad, NM 88220
Phone:	(917) 683-2503	Email:	

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund State of Project:	
Reporting Level: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV	Deliverables: EDD ☐ ADAPT ☐ Other:

ANALYSIS REQUEST

Project Name:	EMCU 250	Turn Around	
Project Number:	TE012920132	Routine	☒
Project Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒
Temperature (°C):	0.4/0.2	Thermometer ID		
Received Intact:	Yes ☒ No ☐	Correction Factor:	-0.2	
Cooler Custody Seals:	Yes ☒ No ☐ N/A	Total Containers:	35	
Sample Custody Seals:	Yes ☒ No ☐ N/A			

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	ANALYSIS REQUEST	Preservative Codes	Sample Comments
	PH01	S	12/4/20	1240	2'	1	X	TPH (EPA 8015)	MeOH: Me	
	PH01A			1256	4'		X	BTEX (EPA 0=8021)	None: NO	
	ES01			1426	2'		X	Chloride (EPA 300.0)	HNO3: HN	
	ES02		12/10/20	0958	2'				H2SO4: H2	
	ES03			1000	2'				HCL: HL	
	ES04			1145	0.6'				NaOH: Na	
	ES05			1148	0.6'				Zn Acetate+ NaOH: Zn	
	ES06			1152	0.6'					
	ES07			1155	0.6'					
	ES08			1158	0.6'					

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12-11-20 1432			



Chain of Custody

Work Order No: 1680845

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
 Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

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Page 2 of 4

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littlell
Company Name:	WEP, Permian Office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Grape St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(817) 683-2503	Email:	

Program: ☐ PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐ State of Project:	
Reporting Level: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:	EM6U 250	Turn Around	☒
Project Number:	TE012920132	Routine	
Project Location:	Lea county	Rush:	
Sampler's Name:	Estina Smith	Due Date:	
PO #:		Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 3000)	ANALYSIS REQUEST	Preservative Codes	Sample Comments
FS09		S	12/16/20	13:15	0.6'	1	X	X	X		MeOH: Me None: NO HNO3: HN H2SO4: H2 HCL: HL NaOH: Na Zn Acetate+ NaOH: Zn TAT starts the day received by the lab, if received by 4:00pm	
FS10				13:18	0.6'							
FS11				13:20	0.6'							
FS12				13:58	0.6'							
FS13				14:00	0.6'							
FS14				14:03	0.6'							
FS15				14:05	0.6'							
GW01				10:14	0-2'							
GW02				10:17	0-2'							
FS16			12/11/20	09:28	0.6'							

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12-11-20 1432			



Chain of Custody

Work Order No: 1680845

Project Manager: Kaler Jennings		Bill to: (if different) Kyle Littlell	
Company Name: WSP, Permian Office		Company Name: XTO Energy	
Address: 3300 North A Street		Address: 3104 E Greene St	
City, State ZIP: Midland, TX 79705		City, State ZIP: Carlsbad, NM 88220	
Phone: (817) 683-2503		Email:	

Project Name: EMSU 250		Turn Around	
Project Number: TE012920132		Routine ☒	
Project Location: Lea County		Rush:	
Sampler's Name: Fatima Smith		Due Date:	
PO #:		Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	ANALYSIS REQUEST										Preservative Codes	
						Pres. Code	Number of Containers										Sample Comments
FS17		S	12/11/20	0930	0.6'	1	X	TPH (EPA 8015)									
FS18				0932	0.6'		X	BTEX (O = 8021)									
FS19				0935	0.6'												
FS20				0937	0.6'												
FS21				0940	0.6'												
FS22				1023	0.6'												
FS23				1025	0.6'												
FS24				1028	0.6'												
FS25				1030	0.6'												
FS26				1033	0.6'												

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Fatima Smith</i>	<i>Joe Clifton</i>	12-10-2014 3:38			
		4			
		6			



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 Crashad, NM (432) 704-5440
Phoenix, AZ (480) 355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000 West Palm Beach, FL (561) 689-6701Work Order No: 680845

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littlell
Company Name:	WSP, Permian Office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(817) 683-2503	Email:	

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

Project Name:	EMSU 250	Turn Around	☒
Project Number:	TE012920132	Routine	☒
Project Location:	Lea county	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	
PO #:		Quote #:	

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

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST	Preservative Codes	Sample Comments
FS27		S	12/11/20	1058	0.5'	1	TPH (EPA 8015)	MeOH: Me	
FS28				1100	0.5'		BTEX (EPA 0-8021)	None: NO	
FS29				1148	0.6'			HNO3: HN	
FS30				1150	0.5'			H2SO4: H2	
SS07				1117	0.5'			HCL: HL	
								NaOH: Na	
								Zn Acetate+ NaOH: Zn	
								TAT starts the day received by the lab, if received by 4:00pm	

Total 200.7 / 6010 200.8 / 6020:

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

1631 / 245.1 / 7470 / 7471 : Hg

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

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	12.11.20 1438 ²			
		4			
		6			

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 12.11.2020 02:32.00 PM

Work Order #: 680845

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#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)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 12.11.2020

Checklist reviewed by:



Jessica Kramer

Date: 12.15.2020

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 23624

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 23624
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	6/7/2021