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	NRM2026951300
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 32.11266 Longitude -103.91544
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 423	Site Type Tank Battery
Date Release Discovered ~~9/15/2020~~ 9-10-2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
I	19	25S	30E	Eddy

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) 15.82	Volume Recovered (bbls) 15
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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 A steel oil trunk line developed a pin hole due to corrosion. A third party contractor will be retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026951300
District RP	
Facility ID	
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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 not been undertaken, explain why:
N/A

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: Kyle Littrell Title: SH&E Supervisor

Signature: Date: 9-22-20

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

OCD Only

Received by: Ramona Marcus Date: 9/25/2020

NRM2026951300

Location:	PLU 423	
Spill Date:	9/10/2020	
Area 1		
Approximate Area =	979.00	sq. ft.
Average Saturation (or depth) of spill =	0.38	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	15.82	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**15.82**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**15.00**	**bbls**

Incident ID	NRM2026951300
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026951300
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Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date:

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026951300
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Remediation Plan

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

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

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

☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☒ Extents of contamination must be fully delineated.

☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date:

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

OCD Only

Received by: Chad Hensley Date: 03/01/2021

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Chad Hensley Date: 03/01/2021

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Unit Letter	Section	Township	Range	County
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Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

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Printed Name: Kyle Littrell
Title: SH&E Supervisor
Signature:
Date: 9-22-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 9/25/2020

NRM2026951300

Location:	PLU 423	
Spill Date:	9/10/2020	
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TOTAL VOLUME OF LEAK		
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TOTAL VOLUME RECOVERED		
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Oil Conservation Division

Incident ID	NRM2026951300
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Page 4

State of New Mexico
Oil Conservation Division

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Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date:

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NRM2026951300
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Remediation Plan

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- ☐ Scaled sitemap with GPS coordinates showing delineation points
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☒ Extents of contamination must be fully delineated.

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Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: Date:

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

OCD Only

Received by: Chad Hensley Date: 03/01/2021

☒ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Chad Hensley Date: 03/01/2021

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

December 11, 2020

District II
New Mexico Oil Conservation Division
811 South First Street
Artesia, New Mexico 88210

RE: Deferral Request
PLU 423
Incident Number NRM2026951300
Eddy County, New Mexico

To Whom it May Concern:

WSP USA Inc. (WSP) (formerly LT Environmental, Inc.), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, soil sampling, and excavation activities at the PLU 423 (Site) in Unit I, Section 19, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following a release of crude oil at the Site. Based on field observations, field screening activities, and soil sampling laboratory analytical results, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Number NRM2026951300 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On September 10, 2020, a steel oil trunk line developed a pin hole leak due to corrosion. Approximately 15.82 barrels (bbls) of crude oil were released onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 15 bbls of crude oil were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 on September 22, 2020 and was assigned Incident Number NRM2026951300. A release date of September 15, 2020 was reported on the initial C-141. The date has been revised on the attached C-141 to show the correct release date of September 10, 2020.

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 closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well

320628103533001, located approximately 1.4 miles southeast of the Site. The groundwater well was most recently measured in January 1998 has a reported depth to groundwater of 265 feet bgs and a total depth of 288 feet bgs. Ground surface elevation at the groundwater well location is 3,207 feet above mean sea level (amsl), which is approximately 26 feet higher in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 900 feet west 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.

During February 2020, in an effort to confirm depth to water in the area, a borehole (MW01) was advanced to a depth of 110 feet bgs via sonic drill rig. The borehole was located approximately 970 feet east of the Site. The location of borehole MW01 is provided on Figure 1. A WSP geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. 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 using hydrated bentonite chips.

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On October 5, 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 three

preliminary assessment soil samples (SS01 through SS03) within the release extent from a depth of approximately 0.25 feet bgs to assess the lateral extent of the impacted soil. 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 Xenco Laboratories (Xenco) 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 SS01 through SS03 indicated that BTEX, TPH-GRO/TPH-DRO, and TPH concentrations exceeded the Closure Criteria. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, excavation and delineation activities were warranted.

EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES

Between November 3, 2020 and November 17, 2020, WSP personnel were at the Site to oversee site assessment and excavation activities.

Impacted soil was excavated from the release area as indicated by visible staining, field screening activities, and laboratory analytical results for the preliminary soil samples. Excavation activities were performed using a backhoe, transport vehicle, and hydrovac. The excavation occurred on the well pad near the production equipment. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Photographic documentation is included in Attachment 2.

Following removal of impacted soil to the extent possible, WSP collected 5-point composite soil samples representing at least 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 soil samples FS01 through FS08 were collected from the floor of the excavation from depths ranging from of 1 foot bgs to 7 feet bgs. Composite soil samples SW01 and SW03 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 7 feet bgs. Additionally, discrete sidewall samples SW02, SW02A, SW02B, and SW02C were collected from depths ranging from 2 feet to 7 feet from the excavation sidewall adjacent to the production equipment, to assess the vertical extent of impacted soil that was left in place. Further excavation

of impacted soil beyond sidewall samples SW02 through SW02C was limited by the presence the active production equipment. XTO safety policy restricts soil disturbing activities to a 2-foot radius of any on-site production equipment. 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 3.

The final excavation extent measured approximately 1,600 square feet. A total of approximately 160 cubic yards of impacted soil was 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 areas were secured with fencing.

Potholes PH01 through PH05 were advanced via backhoe to a depth of 7 feet bgs within and around the release extent, to assess the lateral and vertical extent of the impacted soil left in place adjacent to the production equipment in the location of sidewall samples SW02 through SW02C. Delineation soil samples were collected from each pothole from depths ranging from 1 foot to 7 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride using a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 3. The potholes and delineation soil sample locations are depicted on Figure 4.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil samples SS01 through SS03 indicated that BTEX, TPH-GRO/TPH-DRO, and TPH concentrations exceeded the Closure Criteria.

Laboratory analytical results for excavation sidewall samples SW01, SW02, SW02A and SW03, and floor samples FS01A, and FS02 through FS08 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Excavation floor sample FS01 initially exceeded the Closure Criteria. Additional soil was removed from this area and subsequent floor sample FS01A collected from the final excavation extent was compliant. Laboratory analytical results for discrete sidewall samples SW02B and SW02C indicated that BTEX, TPH-GRO/TPH-DRO, and TPH concentrations exceeded the Closure Criteria at depths of 2 feet and 4 feet bgs in the excavation sidewall adjacent to the production equipment. Subsequent discrete sidewall samples SW02 and SW02A collected from depths of 6 feet and 7 feet bg~~d~~s were compliant with the Closure Criteria and confirmed that impacted soil left in place did not exceed a depth of 6 feet bgs. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH05 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

DEFERRAL REQUEST

A total of approximately 160 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place in the eastern excavation sidewall immediately adjacent to active production equipment. XTO safety policy restricts earth moving activities within 2 feet of active production equipment. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of the production equipment. This policy was enforced where impacted soil was identified within 2 feet of the production equipment in excavation sidewall samples SW02B and SW02C.

The impacted soil remaining in place is delineated vertically and laterally by excavation soil samples SW01, SW02, SW02A, FS05 and FS06, collected from the sidewalls and floor of the final excavation extent, as well as delineation soil samples collected from potholes PH01 through PH05. An estimated 52 cubic yards of impacted soil remains in place, assuming a maximum depth of 7 feet bgs based on the excavation and delineation soil samples listed above that were compliant with the Closure Criteria. The deferral request area is shown on the attached Figure 4.

XTO requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The majority of the released fluids were recovered during initial response activities and the impacted soil remaining in place is limited to the area immediately adjacent to the production equipment. XTO requests deferral of final remediation for Incident Number NRM2026951300.

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

Sincerely,

WSP USA Inc.

Spencer Lo
Assistant Geologist

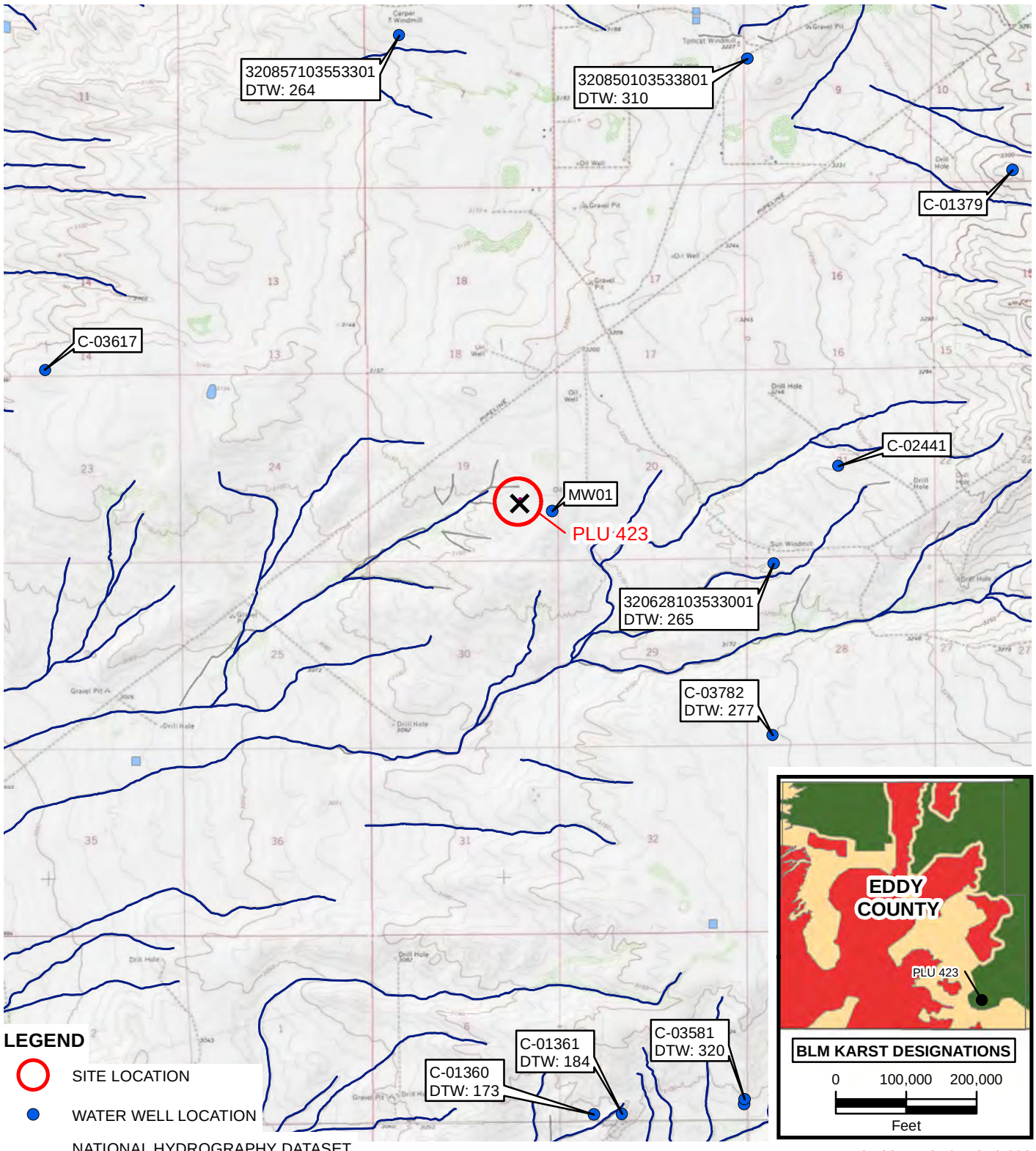
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Kyle Littrell, XTO
Robert Hamlet, NMOCD
Victoria Venegas, NMOCD
Jim Amos, Bureau of Land Management

Attachments:

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

FIGURES



LEGEND

- SITE LOCATION
- WATER WELL LOCATION
- NATIONAL HYDROGRAPHY DATASET SURFACE WATER FEATURE
- NATIONAL WETLANDS INVENTORY SURFACE WATER FEATURE
- LOW KARST
- MEDIUM KARST
- HIGH KARST

NOTE: INCIDENT NUMBER NOT ASSIGNED
DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT

FIGURE 1
SITE LOCATION MAP
PLU 423
UNIT I SEC 19 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920139_PLU 423\012920139_FIG01_SL_RECEPTOR_2020.mxd

LEGEND

IMAGE COURTESY OF ESRI

PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA

0 50 100

Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU 423
UNIT I SEC 19 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

P:\XTO Energy\GIS\MXD\012920139_PLU 423\012920139_FIG02_PRELIMINARY_2020.mxd

LEGEND

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 50 100
Feet

N

FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
PLU 423
UNIT I SEC 19 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920139_PLU 423\012920139_FIG04_EXCAVATION_2020.mxd

LEGEND

DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

DEFERRAL AREA

EXCAVATION EXTENT

SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 50 100

Feet

N

FIGURE 4
DELINEATION SOIL SAMPLE LOCATIONS
PLU 423
UNIT I SEC 19 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012920139_PLU 423\012920139_FIG04_DELINEATION_2020.mxd

TABLES

Table 1

Soil Analytical Results
PLU 423
Incident Number NRM2026951300
Eddy 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	10/05/2020	0.25	<0.0994	9.99	43,700	2,350	4,400	**46,100**	**50,500**	1,510
SS02	10/05/2020	0.25	<0.0998	**91.8**	44,600	4,160	4,770	**48,800**	**53,500**	376
SS03	10/05/2020	0.25	<0.0996	**78.3**	29,300	3,080	2,690	**32,400**	**35,100**	106
Excavation Floor Samples										
FS01	11/03/2020	1	<0.00198	0.00294	1620	<49.8	185	**1,620**	1,810	465
FS01A	11/17/2020	2	<0.00199	<0.001990	269	<50.1	<50.1	269.0	269.0	3,260
FS02	11/03/2020	1	<0.00201	<0.00201	163	<50.1	<50.1	163	163	594
FS03	11/03/2020	1	<0.00198	0.0294	408	<50.2	<50.2	408	408	1,620
FS04	11/03/2020	1	<0.00202	<0.00202	983	<50.3	112	983	1,100	6,430
FS05	11/04/2020	7	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	628
FS06	11/04/2020	7	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	515
FS07	11/04/2020	2	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	50.6
FS08	11/05/2020	1	<0.00200	<0.00200	262	<50.0	<50.0	262	262	187
Excavation Sidewall Samples										
SW01	11/04/2020	0 - 7	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	739
SW02	11/04/2020	6	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	551
SW02A	11/04/2020	7	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	556
SW02B	11/17/2020	2	1.25	**89.95**	18,400	3,960	1,650	**22,360**	**24,010**	358
SW02C	11/17/2020	4	<0.0500	**72.50**	13,900	3,260	1,250	**17,160**	**18,410**	334
SW03	11/17/2020	0 - 2	<0.00199	<0.001990	<50.1	<50.1	<50.1	<50.10	<50.10	3,440

Table 1

Soil Analytical Results
PLU 423
Incident Number NRM2026951300
Eddy 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
Delineation Samples										
PH01A	11/17/2020	3	<0.00200	<0.002000	<49.8	<49.8	<49.8	<49.80	<49.80	1,980
PH01	11/09/2020	7	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	818
PH02A	11/17/2020	3	<0.00202	<0.002020	85.7	<49.9	<49.9	85.70	85.70	4,010
PH02	11/09/2020	7	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	944
PH03A	11/17/2020	3	<0.00202	<0.002020	<50.2	<50.2	<50.2	<50.20	<50.20	129
PH03	11/09/2020	7	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,080
PH04A	11/17/2020	3	<0.00200	<0.002000	<50.1	<50.1	<50.1	<50.10	<50.10	1,160
PH04	11/09/2020	7	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	157
PH05	11/17/2020	1	<0.00199	<0.001990	<49.9	<49.9	<49.9	<49.90	<49.90	211
PH05A	11/17/2020	3	<0.00200	<0.002000	<49.9	<49.9	<49.9	<49.90	<49.90	211
PH05B	11/17/2020	7	<0.00200	<0.002000	<49.9	<49.9	<49.9	<49.90	<49.90	204

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

Greyed data represents samples that were excavated

ATTACHMENT 1: REFERENCED WELL RECORD

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name: ~~ADU 816~~ PLU 423	RP Number: ERP-3790
Logged By: FS	Method: SONIC
Lat/Long:	Field Screening: ~~CHLORIDES, PID~~
Hole Diameter: 4"/6"	Total Depth: 110'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: No sampling, lithology remarks only

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					1			hydrovac excavated (refusal @ 1')
					2			2.5' SAND, dry, well graded, coarse-fine grain, light brwn-tan, no stain, no odor
D			N		3		SW-S	
					4			5' few silty sand pockets, reddish brwn, no plas, non cohesive
D			N		5			
					6			
					7		SP	6' SAND, dry, poorly graded, light brwn-brwn, fine-very fine 2.5-4 9-12
D			N		8			
					9			7.5' some mod consol ss light brwn-brwn, sub rounded
D			N		10		SW-S	
					11			10' abundant ss 10-11' color change
					12			12' ss gravel? absent tan-off white
					13		SP	16' abundant ss gravel (mod consol) 13' back t/ light brwn-brwn
					14			19' abundant - some
D			N		15			
					16			21.5' sandstone, light brwn-tan, dry, mod well consolidated, abundant
D			N		17		SW-S	
					18			23' sandstone chunks absent
D			N		19			
					20			
					21			
D			N		22			
					23			
					24			
D			N		25			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name: ~~ADU 816~~ PLU 423	RP Number: ~~2RP-2674~~ 2RP-3790
Logged By: FS	Method: SONIC
Lat/Long:	Field Screening: ~~CHLORIDES, PID~~
Hole Diameter: 4"/6"	Total Depth: 110'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					26			27.5' SAND, dry, light brwn - tan, poorly graded, fine-very fine grey - grey
D			N		27			
					28		SP	30' trace light ~~brwn - tan~~ caliche pebbles (gravel), rounded
D			N		29			
					30			31' caliche pebbles absent
					31			
D			N		32			31.5' color change light brwn - reddish brwn
					33			
M			N		34			33-34' abundant ss chunks, mod consol
					35			35' ss chunks absent
					36			
M			N		37		SW-SP	36' some clay pockets, reddish brwn, few pebbles, rounded - subrounded, grey - light grey, few laminations w/ clay, caliche, dolomite?
					38			
					39			
M			N		40			
					41			42.5' clay laminations, trace, reddish brwn
M			N		42			
					43			
					44			44' color change, light brwn - tan, SILTY sand
M			N		45		SP-SM	44.5' some SILTY sand (predom), light brwn - tan, no plasticity, non cohesive, trace high plas clay nodules, reddish brwn
					46			
D			N		47			
					48			48.5' low plas clay band, orange (35-40 mm)
					49			49.5' faint yellow band, (15-20 mm)
D			N		50			

rig added water

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name:	**RP Number:**
PLU 423	2RP-3790
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: FS / Method: sonic
Lat/Long: / Field Screening: ~~CHLORIDES, PID~~	Hole Diameter: 4"/6" / Total Depth: 110'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D			N		51		SP	51.5' trace, high plas clay nodules
D			N		52			
M			N		53			53-54' some silty ss, poorly consolidated
M			N		54			
M			N		55			55.5' color change tan-grey band (30mm)
M			N		56			
M			N		57	X		59.5' SILTY sand, light brwn-brwn, moist, no plas, non cohesive, no stain
M			N		58			
D			N		59			
M			N		60		SM	62' more consolidated
M			N		61			
M			N		62			64' dark brwn color change, silty clay nodules
M			N		63		SM-S	
M			N		64			66' pockets of silty clay brwn-green
M			N		65			
M			N		66			68' low plas clay pockets some, few low plas clay laminations
M			N		67			
M			N		68			
M			N		69			71' SILTY sand, dry, no plas, non cohesive, light brwn-tan
M			N		70			
M			N		71			74' trace caliche pebbles, light grey-grey
D			N		72		SM	
D			N		73			
D			N		74			
D			N		75			

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/4/2020
Project Name:	**RP Number:**
PLU 423	2RP-3790
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: FS, BB / Method: sonic
Lat/Long: / Field Screening: ~~CHLORIDES, PID~~	Hole Diameter: 6"/4" / Total Depth: 110'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
						76	SM	76.5' trace low plas clay nodules, reddish brwn
D			N			77		
						78		82' CLAYSTONE, moist, brwn-greenish grey, low plasticity, cohesive, no stain, no odor, mod consolidated
D			N			79		
						80		
D			N			81		
						82		85' SILTY sand, dry, light brwn - brwn, no plas, non cohesive, no stain, no odor
						83	CL-S	
M			N			84		
						85		87' color change tan - off white
D			N			86	SM	88' light brwn - brwn
						87		
D			N			88	SM-S	87' SILTSTONE, dry, w/ clay pockets, low plas
						89		
D			N			90		
						91		91' abundant clay pockets
						92		
D			N			93		94.5' band yellow low plas clay
						94	SM	
D			N			95	CH	end@95' 2/4/2020
						96		2/5/20
M			N			97		95'-101 CLAY, moist, brown - dark brown, high plasticity, cohesive, Some tan clay laminations, no stain, no odor.
M			N			98		
D			N			99		98'-99' tan fine grain sandstone stringer.
M			N			100		

LT Environmental, Inc.
508 West Stevens Street
Carlsbad, New Mexico 88220
Compliance · Engineering · Remediation

Identifier:	Date:
MW01	2/5/2020
Project Name:	**RP Number:**
PLU 423	2RP-3790
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: BP / Method: Sonic
Lat/Long:	Field Screening: CHLORIDES, PID. / Hole Diameter: 6"/4" / Total Depth: 110'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D			N		101–125		CH / SP-S / CH	101'- 105' SANDSTONE, tan - light brown, dry, moderately consolidated, calcareous cemented, poorly graded, no staining, no odor.
D			N					105'- 110' CLAY, moist, dark brown - brown, high plasticity, cohesive, trace tan sand laminations, no stain, no odor.
D			N					107'- 109' tan - light brown well consolidated fine grain sandstone stringer.
M			N					TD @ 110'
D			N					
D			N					
D			N					
M			N					

USGS 320628103533001 25S.30E.21.333424

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°06'28", Longitude 103°53'30" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 288 feet
Land surface altitude: 3,207 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

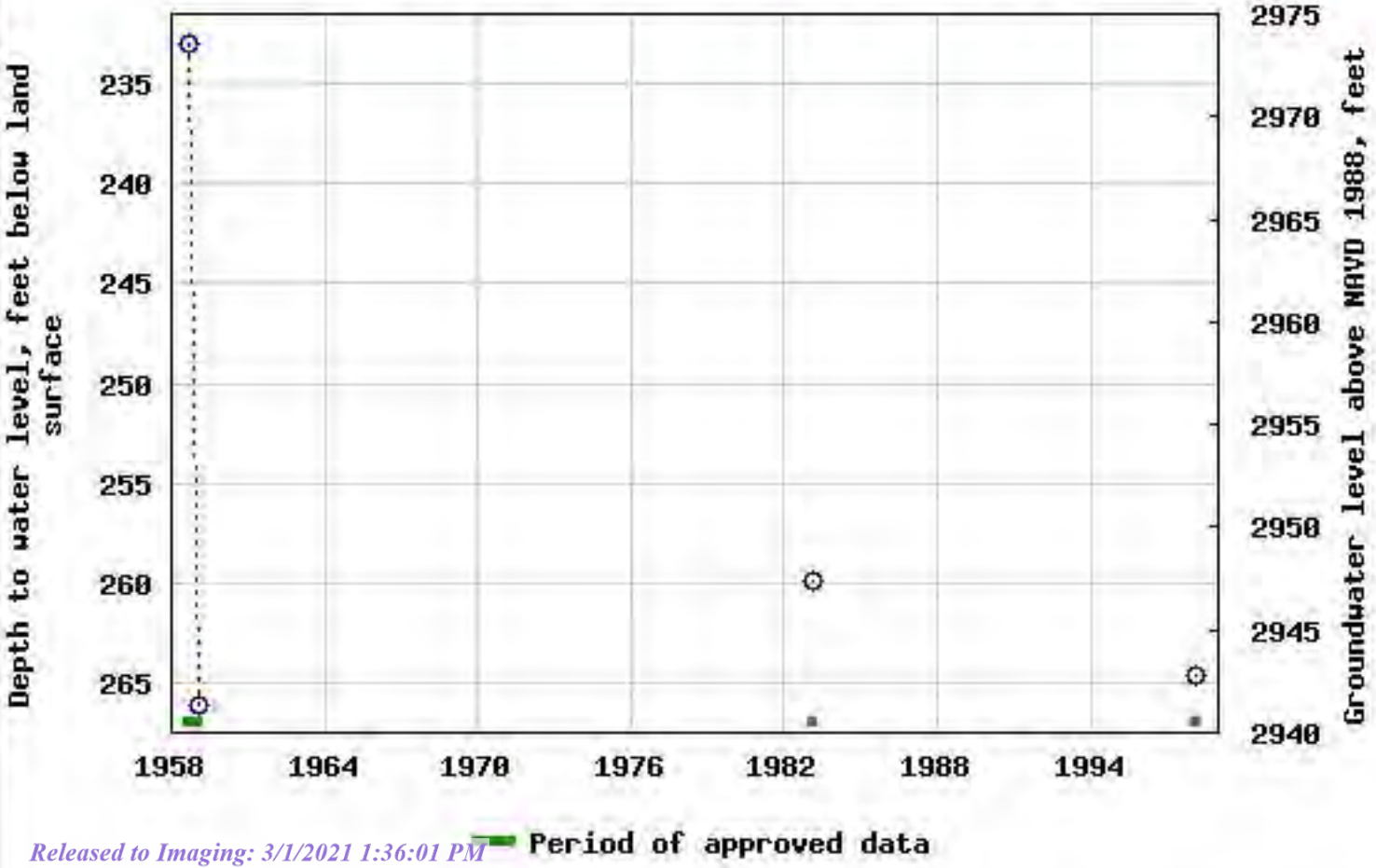
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1958-08-21	1998-01-28	4
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 320628103533001 25S.30E.21.333424



USGS 320850103533801 25S.30E.08.224444

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°08'50", Longitude 103°53'38" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: not determined.
Land surface altitude: 3,232 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

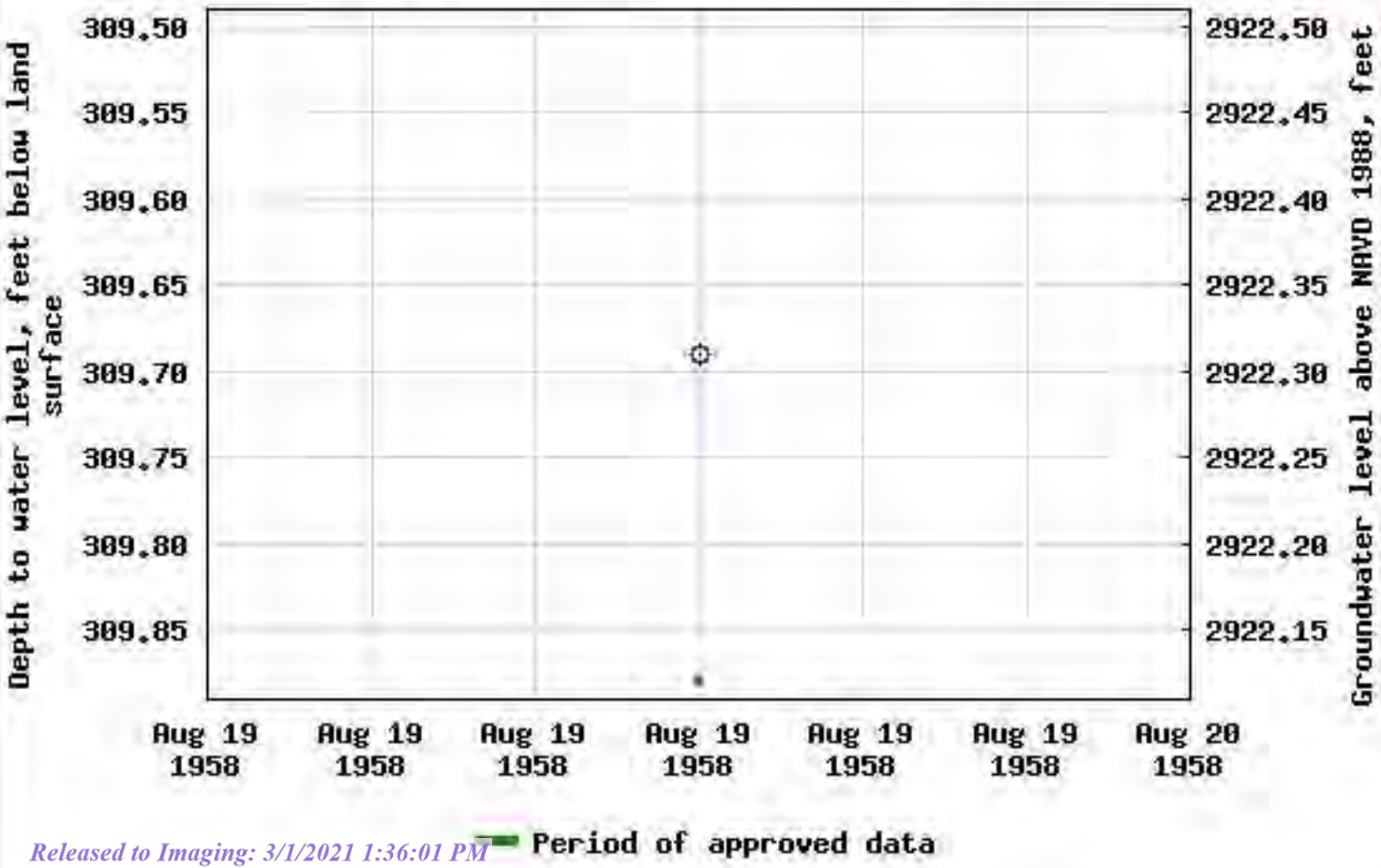
Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1958-08-19	1958-08-19	1
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS

USGS 320850103533801 25S.30E.08.224444



USGS 320857103553301 25S.30E.07.112331

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°08'57", Longitude 103°55'33" NAD27
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 385 feet
Land surface altitude: 3,169 feet above NAVD88.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

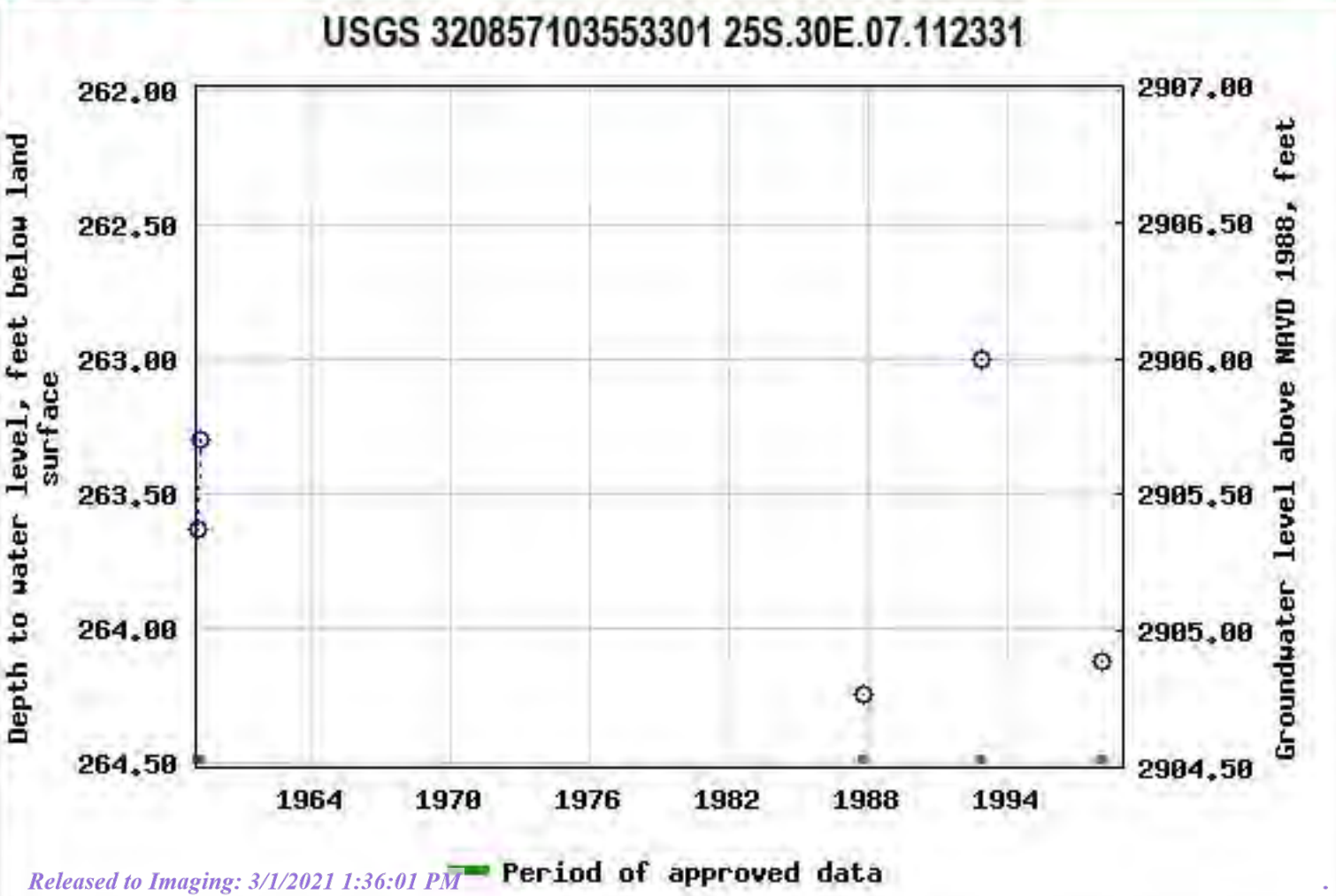
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-05	1998-01-28	5
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

USGS


USGS 320857103553301 25S.30E.07.112331
Depth to water level, feet below land surface
262.00
262.50
263.00
263.50
264.00
264.50
Groundwater level above NAVD 1988, feet
2907.00
2906.50
2906.00
2905.50
2905.00
2904.50
1964
1970
1976
1982
1988
1994
Period of approved data

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 01360	4	3	3	05	26S	30E	602997	3548152

Driller License: 95 **Driller Company:** FOLK DRILLING CO.

Driller Name:

Drill Start Date: 04/26/1952 **Drill Finish Date:** 05/15/1952 **Plug Date:**

Log File Date: 11/17/1953 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 12.75 **Depth Well:** 770 feet **Depth Water:** 173 feet

Water Bearing Stratifications:	Top	Bottom	Description
	210	220	Sandstone/Gravel/Conglomerate
	580	585	Sandstone/Gravel/Conglomerate
	665	710	Sandstone/Gravel/Conglomerate
	725	770	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	180	289
	538	770

Meter Number: 16557 **Meter Make:** SIEMENS

Meter Serial Number: L1254823 **Meter Multiplier:** 100.0000

Number of Dials: 8 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
07/01/2014	2014	234997	A	RPT		0	
09/30/2014	2014	354169	A	RPT		36.573	
11/20/2014	2014	7281000	A	RPT		0	
12/31/2014	2014	11430100	A	RPT		12.733	
04/01/2015	2015	22535200	A	RPT		34.080	
07/01/2015	2015	35821800	A	RPT		40.775	
10/05/2015	2015	46631200	A	RPT		33.173	
12/31/2015	2015	55653200	A	RPT		27.688	
01/31/2016	2016	58047600	A	RPT		7.348	
02/29/2016	2016	61081100	A	RPT		9.309	
03/31/2016	2016	62593100	A	RPT		4.640	
06/30/2016	2016	71642600	A	RPT		27.772	
10/03/2016	2016	81998399	A	RPT		31.781	
12/31/2016	2016	90558600	A	RPT		26.270	
04/04/2019	2019	164290087	A	RPT		226.274	
10/02/2019	2019	790380	A	RPT	METER CHANGE OUT 07/2019	0	

01/02/2020	2020	1733720	A	RPT		289.500

x

**YTD Meter Amounts:	Year	Amount
	2014	49.306
	2015	135.716
	2016	107.120
	2019	226.274
	2020	289.500

x

Meter Number: 16558 **Meter Make:** MASTERMETER

Meter Serial Number: 32530403 **Meter Multiplier:** 100.0000

Number of Dials: 6 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:**

x

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
10/01/2014	2014	354169	A	RPT		0	
11/20/2014	2014	415555	A	RPT		18.839	
11/21/2014	2014	72810	A	RPT		0	
12/31/2014	2014	112178	A	RPT		12.082	
02/01/2015	2015	147039	A	RPT		10.698	
03/02/2015	2015	188133	A	RPT		12.611	
04/01/2015	2015	224102	A	RPT		11.038	
04/30/2015	2015	270723	A	RPT		14.307	
05/31/2015	2015	315628	A	tw		13.781	
07/01/2015	2015	369075	A	tw		16.402	
08/01/2015	2015	395528	A	tw		8.118	
08/31/2015	2015	455361	A	tw		18.362	
10/01/2015	2015	466312	A	RPT		3.361	

x

**YTD Meter Amounts:	Year	Amount
	2014	30.921
	2015	108.678

x

POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 01361	3	4	3	05	26S	30E	603240	3548157

Driller License: 95 **Driller Company:** FOLK DRILLING CO.

Driller Name:

Drill Start Date: 05/16/1952 **Drill Finish Date:** 06/01/1952 **Plug Date:**

Log File Date: 11/17/1953 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 12.75 **Depth Well:** 775 feet **Depth Water:** 184 feet

Water Bearing Stratifications:

Top	Bottom	Description
195	230	Sandstone/Gravel/Conglomerate
255	295	Sandstone/Gravel/Conglomerate
535	570	Sandstone/Gravel/Conglomerate
695	735	Sandstone/Gravel/Conglomerate
740	750	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
145	353
418	555
530	755

Meter Number: 16559 **Meter Make:** SIEMENS

Meter Serial Number: L1254817 **Meter Multiplier:** 100.0000

Number of Dials: 8 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Quarterly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
07/01/2014	2014	432977	A	RPT		0	
09/30/2014	2014	542020	A	RPT		33.464	
11/20/2014	2014	71523	A	RPT		0	
12/31/2014	2014	10869200	A	RPT		33.137	
04/01/2015	2015	20528000	A	RPT		29.642	
07/01/2015	2015	32166600	A	RPT		35.718	
10/02/2019	2019	41391130	A	RPT		2830.904	
01/02/2020	2020	44360000	A	RPT		911.113	

****YTD Meter Amounts:**

Year	Amount
2014	66.601
2015	65.360
2019	2830.904
2020	911.113

Meter Number:	16560	**Meter Make:**	MASTERMETER
Meter Serial Number:	425026402	**Meter Multiplier:**	1.0000
Number of Dials:	9	**Meter Type:**	Diversion
Unit of Measure:	Gallons	**Return Flow Percent:**	
Usage Multiplier:		**Reading Frequency:**	Monthly

x

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
01/03/2012	2012	796624	A	RPT		0	
04/01/2014	2014	322335	R	RPT	Meter Rollover	161.335	
07/01/2014	2014	422977	A	RPT		30.886	
10/01/2014	2014	542008	A	RPT		36.529	
11/20/2014	2014	597747	A	RPT		17.106	
11/21/2014	2014	71523	A	RPT		0	
12/31/2014	2014	108692	A	RPT		11.407	
02/01/2015	2015	144071	A	RPT		10.857	
03/02/2015	2015	177073	A	RPT		10.128	
04/01/2015	2015	204100	A	RPT		8.294	
04/30/2015	2015	246672	A	RPT		13.065	
05/31/2015	2015	286863	A	RPT		12.334	
07/01/2015	2015	329411	A	RPT		13.058	
08/01/2015	2015	350757	A	RPT		6.551	
08/31/2015	2015	384122	A	RPT		10.239	
10/01/2015	2015	413202	A	RPT		8.924	
10/01/2015	2015	0	A	RPT	Meter Change	0	
10/31/2015	2015	2767800	A	RPT		8.494	
11/30/2015	2015	5636900	A	RPT		8.805	
12/31/2015	2015	7565000	A	RPT		5.917	
01/31/2016	2016	9247200	A	RPT		5.162	
02/29/2016	2016	12569900	A	RPT		10.197	
03/31/2016	2016	14698800	A	RPT		6.533	
04/30/2016	2016	16601309	A	RPT		5.839	
05/30/2016	2016	19235300	A	RPT		8.083	
06/30/2016	2016	22955800	A	RPT		11.418	
07/31/2016	2016	26437114	A	RPT		10.684	
08/30/2016	2016	30077563	A	RPT		11.172	
09/30/2016	2016	32631836	A	RPT		7.839	
10/31/2016	2016	35193200	A	RPT		7.861	
11/30/2016	2016	37896100	A	RPT		8.295	
12/31/2016	2016	41023100	A	RPT		9.596	
04/04/2019	2019	99357190	A	RPT		179.021	

x

**YTD Meter Amounts:	Year	Amount
	2012	0
	2014	257.263
	2015	116.666
	2016	102.679
	2019	179.021

x

POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03581 POD1	4	4	4	05	26S	30E	604298	3548291

Driller License: 1654 **Driller Company:** NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC

Driller Name:

Drill Start Date: 11/01/2012 **Drill Finish Date:** 11/09/2012 **Plug Date:**

Log File Date: 11/13/2012 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 55 GPM

Casing Size: 6.00 **Depth Well:** 800 feet **Depth Water:** 320 feet

Water Bearing Stratifications:

Top	Bottom	Description
225	335	Sandstone/Gravel/Conglomerate
690	710	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
360	400
680	760
760	800

Meter Number: 16571 **Meter Make:** MASTERMETER

Meter Serial Number: 8107621 **Meter Multiplier:** 100.0000

Number of Dials: 6 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:**

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
04/01/2014	2014	259537	A	RPT		0	
07/01/2014	2014	278436	A	RPT		5.800	
10/01/2014	2014	296778	A	RPT		5.629	
12/31/2014	2014	313660	A	RPT		5.181	
02/01/2015	2015	318775	A	RPT		1.570	
03/02/2015	2015	323284	A	RPT		1.384	
04/01/2015	2015	328475	A	RPT		1.593	
04/30/2015	2015	335707	A	RPT		2.219	
05/31/2015	2015	342147	A	RPT		1.976	
08/01/2015	2015	352324	A	RPT		3.123	
08/31/2015	2015	358371	A	RPT		1.856	
10/01/2015	2015	364478	A	RPT		1.874	

****YTD Meter Amounts:**

Year	Amount
2014	16.610
2015	15.595

POINT OF DIVERSION SUMMARY

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 03782 POD1	4	3	3	28	25S	30E	604526	3551444

x

Driller License: 331 **Driller Company:** SBQ2, LLC DBA STEWART BROTHERS DRILLING CO.

Driller Name:

Drill Start Date: 01/16/2015 **Drill Finish Date:** 01/17/2015 **Plug Date:**

Log File Date: 02/19/2015 **PCW Rcv Date:** **Source:** Artesian

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: 8.63 **Depth Well:** 805 feet **Depth Water:** 277 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	260	320	Sandstone/Gravel/Conglomerate
	320	380	Sandstone/Gravel/Conglomerate
	380	410	Sandstone/Gravel/Conglomerate
	410	530	Shale/Mudstone/Siltstone
	530	590	Shale/Mudstone/Siltstone
	590	600	Shale/Mudstone/Siltstone
	600	630	Shale/Mudstone/Siltstone
	630	650	Shale/Mudstone/Siltstone
	650	700	Shale/Mudstone/Siltstone
	700	710	Shale/Mudstone/Siltstone
	710	760	Shale/Mudstone/Siltstone
	760	770	Shale/Mudstone/Siltstone
	770	780	Shale/Mudstone/Siltstone
	780	790	Shale/Mudstone/Siltstone
	790	805	Shale/Mudstone/Siltstone

x

Casing Perforations:	Top	Bottom
	270	805

x

ATTACHMENT 2: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 423 Eddy County, New Mexico	TE012920139

Photo No.	Date
1	October 5, 2020 – November 17, 2020

Northern view of staining.

Photo No.	Date
2	October 5, 2020 – November 17, 2020

Southern view of staining.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 423 Eddy County, New Mexico	TE012920139

Photo No.	Date
3	October 5, 2020 – November 17, 2020

Western view of staining north of equipment area.

Photo No.	Date
4	October 5, 2020 – November 17, 2020

Southeastern view of excavation near containment.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 423 Eddy County, New Mexico	TE012920139

Photo No.	Date
5	October 5, 2020 – November 17, 2020

Southeastern view of excavation near release point and deferral area.

Photo No.	Date
6	October 5, 2020 – November 17, 2020

Western view of excavation north of equipment area.

ATTACHMENT 3: LITHOLOGIC/SAMPLING LOG

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: PH01	Date: 11/9/2020
	Site Name:	PLU 423
	RP or Incident Number:	NRM2026951300
	LTE Job Number:	TE012920139
LITHOLOGIC / SOIL SAMPLING LOG	Logged By SL EL	Method: Backhoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: -- / Total Depth: 7'

Comments: TD @ 7', chloride screening using 60% error factor

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
						1		OPEN EXCAVATION
						2		1'-6' SANDEY clay, low plasticity, low cohesion, gravel, brown m-f, moderately sorted, no stain, odor
M	1,542	1.7	N	PH01A	3'	3	SP-SC	
						4		
						5		
					6'	6		
D	870	17.7	N	PH01	7'	7	CCHE	CALICHE w/ sand, tan, off-white, odor, no stain, poorly sorted
						8		TD @ 7'
						9		
						10		
						11		
						12		

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: PH02	Date: 11/9/2020
	Site Name:	PLU 423
	RP or Incident Number:	NRM2026951300
	LTE Job Number:	TE012920139
LITHOLOGIC / SOIL SAMPLING LOG	Logged By SL EL	Method: Backhoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: -- / Total Depth: 7'

Comments: TD @ 7', chloride screening using 60% error factor

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		0-7' SAND w/ caliche, no odor, no stain, m-f, moderately sorted, brown, tan
						1		
						2		
D	2,304	0.6	N	PH02A		3	SP	
						4		
						5		
D	1,331	0.0	N			6		
D	870	0.0	N	PH02	7	7		
						8		TD @ 7'
						9		
						10		
						11		
						12		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH03	Date: 11/9/2020
Site Name:	PLU 423
RP or Incident Number:	NRM2026951300
LTE Job Number:	TE012920139
Logged By SL EL	Method: Backhoe
Lat/Long:	Field Screening: Chloride, PID
Hole Diameter: --	Total Depth: 7'

LITHOLOGIC / SOIL SAMPLING LOG

Comments: TD @ 7', chloride screening using 60% error factor

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		0-7' SAND, dark brown, m-f, moderately sorted, no stain, no odor
						1		-1'-7' pea sized gravel
						2		
M	<186	3.4	N	PH03A		3	SP	
						4		
						5		
M	<186	0.0	N		6'	6		
M	1,139	0.0	N	PH03	7'	7		
						8		TD @ 7'
						9		
						10		
						11		
						12		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH04		Date: 11/9/2020	
Site Name:		PLU 423	
RP or Incident Number:		NRM2026951300	
LTE Job Number:		TE012920139	
LITHOLOGIC / SOIL SAMPLING LOG		Logged By SL EL	Method: Backhoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: --	Total Depth: 7'

Comments: TD @ 7', chloride screening using 60% error factor

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		0-5.5' SAND w/caliche, no odor, no stain, m-f, moderately sorted, tan-brown
						1		
						2		
D	<186	3.4	N	PH04A	3'	3	SP	
						4		
						5		
D	<186	0.0	N		6'	6	CCHE	5.5'-7' CALICHE w/ sand, tan, m-f, moderately sorted, no odor, no stain, consolidated,tan
D	<186	0.0	N	PH04	7'	7		
						8		TD @ 7'
						9		
						10		
						11		
						12		

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: PH05	Date: 11/9/2020
	Site Name:	PLU 423
	RP or Incident Number:	NRM2026951300
	LTE Job Number:	TE012920139
LITHOLOGIC / SOIL SAMPLING LOG	Logged By SL EL	Method: Backhoe
Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: -- / Total Depth: 7'
Comments: TD @ 7', chloride screening using 60% error factor		

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0		0-6'	SAND, no odor, no stain, brown, m-f, moderately sorted, trace silt
D	<186	0.7	N	PH05	1'	1			
						2			
D	<186	0.9	N	PH05A	3'	3	SP	-3'	caliche sized gravel
						4			
						5			
						6			
D	<186	0.6	N	PH05B	7'	7	CCHE	6'-7'	CALICHE w/ sand, no odor, no stain, m-f, moderately sorted, tan-brown, gravel sized
						8		TD @ 7'	
						9			
						10			
						11			
						12			

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

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Certificate of Analysis Summary 674318

LT Environmental, Inc., Arvada, CO

Project Name: PLU 423

Project Id: 012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Mon 10.05.2020 14:46
Report Date: 10.08.2020 14:01
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	674318-001		674318-002		674318-003				
	Field Id:	SS01		SS02		SS03				
	Depth:	0.25- ft		0.25- ft		0.25- ft				
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	10.05.2020 12:02		10.05.2020 12:04		10.05.2020 12:06				
BTEX by EPA 8021B	***Extracted:***	10.05.2020 16:00		10.05.2020 16:00		10.05.2020 16:00				
	Analyzed:	10.05.2020 17:13		10.05.2020 17:35		10.05.2020 17:58				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		<0.0994	0.0994	<0.0998	0.0998	<0.0996	0.0996			
Toluene		<0.0994	0.0994	3.10	0.399	4.19	0.398			
Ethylbenzene		1.35	0.398	29.2	0.399	31.3	0.398			
m,p-Xylenes		3.88	0.795	40.5	0.798	30.1	0.797			
o-Xylene		4.76	0.398	19.0	0.399	12.7	0.398			
Total Xylenes		8.64	0.398	59.5	0.399	42.8	0.398			
Total BTEX		9.99	0.0994	91.8	0.0998	78.3	0.0996			
Chloride by EPA 300	***Extracted:***	10.06.2020 16:50		10.06.2020 16:50		10.06.2020 16:50				
	Analyzed:	** ** ** **		10.06.2020 16:56		10.06.2020 17:02				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		1510	49.6	376	10.0	106	50.1			
TPH by SW8015 Mod	***Extracted:***	10.05.2020 16:30		10.05.2020 16:30		10.05.2020 16:30				
	Analyzed:	10.05.2020 21:02		10.05.2020 21:23		10.05.2020 21:43				
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		2350	499	4160	502	3080	502			
Diesel Range Organics (DRO)		43700	499	44600	502	29300	502			
Motor Oil Range Hydrocarbons (MRO)		4400	499	4770	502	2690	502			
Total GRO-DRO		46100	499	48800	502	32400	502			
Total TPH		50500	499	53500	502	35100	502			

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 674318

for

LT Environmental, Inc.

Project Manager: Dan Moir

PLU 423

012920139

10.08.2020

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

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10.08.2020

Project Manager: **Dan Moir**
LT Environmental, Inc.
4600 W. 60th Avenue
Arvada, CO 80003

Reference: Eurofins Xenco, LLC Report No(s): **674318**
PLU 423
Project Address:

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) 674318. 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. 674318 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,

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

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Sample Cross Reference 674318

LT Environmental, Inc., Arvada, CO

PLU 423

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	10.05.2020 12:02	0.25 ft	674318-001
SS02	S	10.05.2020 12:04	0.25 ft	674318-002
SS03	S	10.05.2020 12:06	0.25 ft	674318-003

CASE NARRATIVE

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Client Name: LT Environmental, Inc.

Project Name: PLU 423

Project ID: *012920139*
Work Order Number(s): *674318*

Report Date: *10.08.2020*
Date Received: *10.05.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 674318

LT Environmental, Inc., Arvada, CO

PLU 423

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.05.2020 14:46
Lab Sample Id:	674318-001	Date Collected:	10.05.2020 12:02	Sample Depth:	0.25 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.06.2020 16:50	% Moisture:	
Seq Number:	3139046			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1510**	49.6	mg/kg	10.06.2020 16:38		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.05.2020 16:30	% Moisture:	
Seq Number:	3138843			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**2350**	499	mg/kg	10.05.2020 21:02		10
Diesel Range Organics (DRO)	C10C28DRO	**43700**	499	mg/kg	10.05.2020 21:02		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**4400**	499	mg/kg	10.05.2020 21:02		10
Total GRO-DRO	PHC628	**46100**	499	mg/kg	10.05.2020 21:02		10
Total TPH	PHC635	**50500**	499	mg/kg	10.05.2020 21:02		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	10.05.2020 21:02	
o-Terphenyl	84-15-1	128	%	70-135	10.05.2020 21:02	

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Certificate of Analytical Results 674318

LT Environmental, Inc., Arvada, CO

PLU 423

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	10.05.2020 14:46
Lab Sample Id:	674318-001	Date Collected:	10.05.2020 12:02	Sample Depth:	0.25 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.05.2020 16:00	% Moisture:	
Seq Number:	3138895			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0994	0.0994	mg/kg	10.05.2020 17:13	U	200
Toluene	108-88-3	<0.0994	0.0994	mg/kg	10.05.2020 17:13	U	200
Ethylbenzene	100-41-4	**1.35**	0.398	mg/kg	10.05.2020 17:13		200
m,p-Xylenes	179601-23-1	**3.88**	0.795	mg/kg	10.05.2020 17:13		200
o-Xylene	95-47-6	**4.76**	0.398	mg/kg	10.05.2020 17:13		200
Total Xylenes	1330-20-7	**8.64**	0.398	mg/kg	10.05.2020 17:13		200
Total BTEX		**9.99**	0.0994	mg/kg	10.05.2020 17:13		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	92	%	70-130	10.05.2020 17:13	
4-Bromofluorobenzene	460-00-4	91	%	70-130	10.05.2020 17:13	

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Certificate of Analytical Results 674318

LT Environmental, Inc., Arvada, CO

PLU 423

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.05.2020 14:46
Lab Sample Id:	674318-002	Date Collected:	10.05.2020 12:04	Sample Depth:	0.25 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.06.2020 16:50	% Moisture:	
Seq Number:	3139046			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**376**	10.0	mg/kg	10.06.2020 16:56		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.05.2020 16:30	% Moisture:	
Seq Number:	3138843			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**4160**	502	mg/kg	10.05.2020 21:23		10
Diesel Range Organics (DRO)	C10C28DRO	**44600**	502	mg/kg	10.05.2020 21:23		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**4770**	502	mg/kg	10.05.2020 21:23		10
Total GRO-DRO	PHC628	**48800**	502	mg/kg	10.05.2020 21:23		10
Total TPH	PHC635	**53500**	502	mg/kg	10.05.2020 21:23		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	10.05.2020 21:23	
o-Terphenyl	84-15-1	113	%	70-135	10.05.2020 21:23	

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Certificate of Analytical Results 674318

LT Environmental, Inc., Arvada, CO

PLU 423

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	10.05.2020 14:46
Lab Sample Id:	674318-002	Date Collected:	10.05.2020 12:04	Sample Depth:	0.25 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.05.2020 16:00	% Moisture:	
Seq Number:	3138895			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0998	0.0998	mg/kg	10.05.2020 17:35	U	200
Toluene	108-88-3	**3.10**	0.399	mg/kg	10.05.2020 17:35		200
Ethylbenzene	100-41-4	**29.2**	0.399	mg/kg	10.05.2020 17:35		200
m,p-Xylenes	179601-23-1	**40.5**	0.798	mg/kg	10.05.2020 17:35		200
o-Xylene	95-47-6	**19.0**	0.399	mg/kg	10.05.2020 17:35		200
Total Xylenes	1330-20-7	**59.5**	0.399	mg/kg	10.05.2020 17:35		200
Total BTEX		**91.8**	0.0998	mg/kg	10.05.2020 17:35		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.05.2020 17:35	
4-Bromofluorobenzene	460-00-4	125	%	70-130	10.05.2020 17:35	

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Certificate of Analytical Results 674318

LT Environmental, Inc., Arvada, CO

PLU 423

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	10.05.2020 14:46
Lab Sample Id:	674318-003	Date Collected:	10.05.2020 12:06	Sample Depth:	0.25 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.06.2020 16:50	% Moisture:	
Seq Number:	3139046			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**106**	50.1	mg/kg	10.06.2020 17:02		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	DTH				
Analyst:	DTH	Date Prep:	10.05.2020 16:30	% Moisture:	
Seq Number:	3138843			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**3080**	502	mg/kg	10.05.2020 21:43		10
Diesel Range Organics (DRO)	C10C28DRO	**29300**	502	mg/kg	10.05.2020 21:43		10
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**2690**	502	mg/kg	10.05.2020 21:43		10
Total GRO-DRO	PHC628	**32400**	502	mg/kg	10.05.2020 21:43		10
Total TPH	PHC635	**35100**	502	mg/kg	10.05.2020 21:43		10

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	10.05.2020 21:43	
o-Terphenyl	84-15-1	90	%	70-135	10.05.2020 21:43	

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Certificate of Analytical Results 674318

LT Environmental, Inc., Arvada, CO

PLU 423

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	10.05.2020 14:46
Lab Sample Id:	674318-003	Date Collected:	10.05.2020 12:06	Sample Depth:	0.25 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	10.05.2020 16:00	% Moisture:	
Seq Number:	3138895			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0996	0.0996	mg/kg	10.05.2020 17:58	U	200
Toluene	108-88-3	**4.19**	0.398	mg/kg	10.05.2020 17:58		200
Ethylbenzene	100-41-4	**31.3**	0.398	mg/kg	10.05.2020 17:58		200
m,p-Xylenes	179601-23-1	**30.1**	0.797	mg/kg	10.05.2020 17:58		200
o-Xylene	95-47-6	**12.7**	0.398	mg/kg	10.05.2020 17:58		200
Total Xylenes	1330-20-7	**42.8**	0.398	mg/kg	10.05.2020 17:58		200
Total BTEX		**78.3**	0.0996	mg/kg	10.05.2020 17:58		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	129	%	70-130	10.05.2020 17:58	
1,4-Difluorobenzene	540-36-3	93	%	70-130	10.05.2020 17:58	

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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

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QC Summary 674318

LT Environmental, Inc.

PLU 423

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139046 — Matrix: Solid — Date Prep: 10.06.2020
MB Sample Id: 7712754-1-BLK — LCS Sample Id: 7712754-1-BKS — LCSD Sample Id: 7712754-1-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	261	104	262	105	90-110	0	20	mg/kg	10.06.2020 16:26	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3139046 — Matrix: Soil — Date Prep: 10.06.2020
Parent Sample Id: 674318-001 — MS Sample Id: 674318-001 S — MSD Sample Id: 674318-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1510	200	1700	95	1700	94	90-110	0	20	mg/kg	10.06.2020 16:44	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3138843 — Matrix: Solid — Date Prep: 10.05.2020
MB Sample Id: 7712627-1-BLK — LCS Sample Id: 7712627-1-BKS — LCSD Sample Id: 7712627-1-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	1010	101	1040	104	70-135	3	35	mg/kg	10.05.2020 10:56	
Diesel Range Organics (DRO)	<50.0	1000	1120	112	1160	116	70-135	4	35	mg/kg	10.05.2020 10:56	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		123		125		70-135	%	10.05.2020 10:56
o-Terphenyl	114		115		116		70-135	%	10.05.2020 10:56

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3138843 — Matrix: Solid — Date Prep: 10.05.2020
MB Sample Id: 7712627-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	10.05.2020 11:36	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3138843 — Matrix: Soil — Date Prep: 10.05.2020
Parent Sample Id: 674035-015 — MS Sample Id: 674035-015 S — MSD Sample Id: 674035-015 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)	<50.1	1000	1260	126	1240	124	70-135	2	35	mg/kg	10.05.2020 12:16	
Diesel Range Organics (DRO)	<50.1	1000	1240	124	1190	119	70-135	4	35	mg/kg	10.05.2020 12:16	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	135		133		70-135	%	10.05.2020 12:16
o-Terphenyl	131		128		70-135	%	10.05.2020 12:16

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

QC Summary 674318

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LT Environmental, Inc.

PLU 423

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3138895 Matrix: Solid Date Prep: 10.05.2020
MB Sample Id: 7712632-1-BLK LCS Sample Id: 7712632-1-BKS LCSD Sample Id: 7712632-1-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	0.105	105	0.108	108	70-130	3	35	mg/kg	10.05.2020 10:54	
Toluene	<0.00200	0.100	0.103	103	0.106	106	70-130	3	35	mg/kg	10.05.2020 10:54	
Ethylbenzene	<0.00200	0.100	0.0973	97	0.0993	99	71-129	2	35	mg/kg	10.05.2020 10:54	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.200	100	70-135	3	35	mg/kg	10.05.2020 10:54	
o-Xylene	<0.00200	0.100	0.0952	95	0.0977	98	71-133	3	35	mg/kg	10.05.2020 10:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		98		70-130	%	10.05.2020 10:54
4-Bromofluorobenzene	85		87		89		70-130	%	10.05.2020 10:54

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3138895 Matrix: Soil Date Prep: 10.05.2020
Parent Sample Id: 674261-001 MS Sample Id: 674261-001 S MSD Sample Id: 674261-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.109	108	0.125	124	70-130	14	35	mg/kg	10.05.2020 12:24	
Toluene	<0.00201	0.101	0.104	103	0.130	129	70-130	22	35	mg/kg	10.05.2020 12:24	
Ethylbenzene	<0.00201	0.101	0.0954	94	0.122	121	71-129	24	35	mg/kg	10.05.2020 12:24	
m,p-Xylenes	<0.00402	0.201	0.190	95	0.245	121	70-135	25	35	mg/kg	10.05.2020 12:24	
o-Xylene	<0.00201	0.101	0.0958	95	0.118	117	71-133	21	35	mg/kg	10.05.2020 12:24	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		96		70-130	%	10.05.2020 12:24
4-Bromofluorobenzene	86		83		70-130	%	10.05.2020 12:24

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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: 674318

XENCO LABORATORIES

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)

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

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU 423	Turn Around	
Project Number:	01926139	Routine	☑
P.O. Number:	Spill date 09/15/20	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	~~Yes~~ No	Wet Ice:	(Yes) No
Temperature (°C):	2.2/2.3	Thermometer ID	T. NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	3

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	10-5-20	1202	0.25	1	X	X	X	discrete
SS02	S	↓	1204	↓	↓	↓	↓	↓	↓
SS03	S	↓	1206	↓	↓	↓	↓	↓	↓

ANALYSIS REQUEST

Work Order Notes

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

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Cloe Cuttan	10.5.20 1446	2		
			4		
			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: LT Environmental, Inc.

Date/ Time Received: 10.05.2020 02.46.00 PM

Work Order #: 674318

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**	Samples received in bulk containers.
#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**	

*** 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: 10.05.2020

Checklist reviewed by: Jessica Kramer Date: 10.07.2020

Jessica Kramer

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Certificate of Analysis Summary 677083

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.05.2020 16:53
Report Date: 11.10.2020 14:19
Project Manager: Jessica Kramer

Analysis Requested							
	Lab Id:	677083-001					
	Field Id:	SW01					
	Depth:	0-7 ft					
	Matrix:	SOIL					
	Sampled:	11.04.2020 14:40					
BTEX by EPA 8021B	***Extracted:***	11.09.2020 10:00					
	Analyzed:	11.09.2020 17:14					
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200					
Toluene		<0.00200 0.00200					
Ethylbenzene		<0.00200 0.00200					
m,p-Xylenes		<0.00400 0.00400					
o-Xylene		<0.00200 0.00200					
Total Xylenes		<0.00200 0.00200					
Total BTEX		<0.00200 0.00200					
Chloride by EPA 300	***Extracted:***	11.06.2020 14:38					
	Analyzed:	11.06.2020 20:02					
	Units/RL:	mg/kg RL					
Chloride		739 50.2					
TPH by SW8015 Mod	***Extracted:***	11.06.2020 13:03					
	Analyzed:	11.06.2020 20:23					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1					
Diesel Range Organics (DRO)		<50.1 50.1					
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1					
Total GRO-DRO		<50.1 50.1					
Total TPH		<50.1 50.1					

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 677083

for

WSP USA

Project Manager: Dan Moir

PLU 423

TE012920139

11.10.2020

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

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11.10.2020

Project Manager: **Dan Moir**
WSP USA
2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **677083**
PLU 423
Project Address:

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) 677083. 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. 677083 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,

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

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Sample Cross Reference 677083

WSP USA, Dallas, TX

PLU 423

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW01	S	11.04.2020 14:40	0 - 7 ft	677083-001

CASE NARRATIVE

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Client Name: WSP USA

Project Name: PLU 423

Project ID: *TE012920139*
Work Order Number(s): *677083*

Report Date: *11.10.2020*
Date Received: *11.05.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 677083

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677083-001	Date Collected:	11.04.2020 14:40	Sample Depth:	0 - 7 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:38	% Moisture:	
Seq Number:	3141709			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**739**	50.2	mg/kg	11.06.2020 20:02		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:03	% Moisture:	
Seq Number:	3141704			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.06.2020 20:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.06.2020 20:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.06.2020 20:23	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.06.2020 20:23	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.06.2020 20:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	11.06.2020 20:23	
o-Terphenyl	84-15-1	121	%	70-135	11.06.2020 20:23	

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Certificate of Analytical Results 677083

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW01**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677083-001	Date Collected:	11.04.2020 14:40	Sample Depth:	0 - 7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.09.2020 17:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.09.2020 17:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.09.2020 17:14	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.09.2020 17:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.09.2020 17:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.09.2020 17:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.09.2020 17:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.09.2020 17:14	
4-Bromofluorobenzene	460-00-4	130	%	70-130	11.09.2020 17:14	

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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

QC Summary 677083

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WSP USA

PLU 423

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141709 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714673-1-BLK — LCS Sample Id: 7714673-1-BKS — LCSD Sample Id: 7714673-1-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	258	103	253	101	90-110	2	20	mg/kg	11.06.2020 17:18	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141709 — Matrix: Soil — Date Prep: 11.06.2020
Parent Sample Id: 677115-001 — MS Sample Id: 677115-001 S — MSD Sample Id: 677115-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	96.6	200	301	102	316	110	90-110	5	20	mg/kg	11.06.2020 17:40	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141709 — Matrix: Soil — Date Prep: 11.06.2020
Parent Sample Id: 677117-010 — MS Sample Id: 677117-010 S — MSD Sample Id: 677117-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3370	200	3560	95	3560	94	90-110	0	20	mg/kg	11.06.2020 18:56	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141704 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714688-1-BLK — LCS Sample Id: 7714688-1-BKS — LCSD Sample Id: 7714688-1-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	907	91	898	90	70-135	1	35	mg/kg	11.06.2020 15:58	
Diesel Range Organics (DRO)	<50.0	1000	992	99	950	95	70-135	4	35	mg/kg	11.06.2020 15:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		107		120		70-135	%	11.06.2020 15:58
o-Terphenyl	89		96		92		70-135	%	11.06.2020 15:58

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141704 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714688-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.06.2020 15:38	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 677083

WSP USA

PLU 423

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3141704 Matrix: Soil Date Prep: 11.06.2020
Parent Sample Id: 677081-001 MS Sample Id: 677081-001 S MSD Sample Id: 677081-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	958	96	895	90	70-135	7	35	mg/kg	11.06.2020 16:59	
Diesel Range Organics (DRO)	1620	999	2700	108	2500	88	70-135	8	35	mg/kg	11.06.2020 16:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		126		70-135	%	11.06.2020 16:59
o-Terphenyl	125		120		70-135	%	11.06.2020 16:59

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141784 Matrix: Solid Date Prep: 11.09.2020
MB Sample Id: 7714666-1-BLK LCS Sample Id: 7714666-1-BKS LCSD Sample Id: 7714666-1-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	0.0967	97	0.100	100	70-130	3	35	mg/kg	11.09.2020 10:53	
Toluene	<0.00200	0.100	0.0762	76	0.0790	79	70-130	4	35	mg/kg	11.09.2020 10:53	
Ethylbenzene	<0.00200	0.100	0.0952	95	0.0993	99	71-129	4	35	mg/kg	11.09.2020 10:53	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.201	101	70-135	4	35	mg/kg	11.09.2020 10:53	
o-Xylene	<0.00200	0.100	0.0950	95	0.0988	99	71-133	4	35	mg/kg	11.09.2020 10:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		99		70-130	%	11.09.2020 10:53
4-Bromofluorobenzene	102		103		103		70-130	%	11.09.2020 10:53

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141784 Matrix: Soil Date Prep: 11.09.2020
Parent Sample Id: 677081-001 MS Sample Id: 677081-001 S MSD Sample Id: 677081-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0982	99	0.0833	83	70-130	16	35	mg/kg	11.09.2020 12:23	
Toluene	0.00231	0.0994	0.0776	76	0.0735	71	70-130	5	35	mg/kg	11.09.2020 12:23	
Ethylbenzene	<0.00199	0.0994	0.0997	100	0.0876	88	71-129	13	35	mg/kg	11.09.2020 12:23	
m,p-Xylenes	<0.00398	0.199	0.203	102	0.159	80	70-135	24	35	mg/kg	11.09.2020 12:23	
o-Xylene	0.00294	0.0994	0.0989	97	0.0788	76	71-133	23	35	mg/kg	11.09.2020 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	11.09.2020 12:23
4-Bromofluorobenzene	103		113		70-130	%	11.09.2020 12:23

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

XENCO LABORATORIES

Chain of Custody

Work Order No: L677083

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)

www.xenco.com Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 423	Turn Around	
Project Number:	TE012920139	Routine	✓
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.4/1.2	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW01	S	11/4/2020	1440	0-7'	1	X	X	X	

Work Order Notes

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

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	[signature]	11-5-20 1653	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 11.05.2020 04.53.00 PM

Work Order #: 677083

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)?	1.2	
#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**	Samples received in bulk containers.
#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**	

*** 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: 11.06.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.06.2020

Jessica Kramer

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Certificate of Analysis Summary 677085

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.05.2020 16:53
Report Date: 11.10.2020 14:19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	677085-001		677085-002					
	Field Id:	SW02		SW02A					
	Depth:	6- ft		7- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	11.04.2020 15:20		11.04.2020 15:30					
BTEX by EPA 8021B	***Extracted:***	11.06.2020 10:30		11.06.2020 10:30					
	Analyzed:	11.07.2020 02:07		11.07.2020 02:29					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00201	0.00201	<0.00200	0.00200				
Toluene		<0.00201	0.00201	<0.00200	0.00200				
Ethylbenzene		<0.00201	0.00201	<0.00200	0.00200				
m,p-Xylenes		<0.00402	0.00402	<0.00401	0.00401				
o-Xylene		<0.00201	0.00201	<0.00200	0.00200				
Total Xylenes		<0.00201	0.00201	<0.00200	0.00200				
Total BTEX		<0.00201	0.00201	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	11.06.2020 14:00		11.06.2020 14:00					
	Analyzed:	11.06.2020 16:50		11.06.2020 16:56					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		551	49.7	556	50.1				
TPH by SW8015 Mod	***Extracted:***	11.06.2020 13:00		11.06.2020 13:00					
	Analyzed:	11.06.2020 23:47		11.07.2020 00:07					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.1	50.1				
Diesel Range Organics (DRO)		<49.8	49.8	<50.1	50.1				
Motor Oil Range Hydrocarbons (MRO)		<49.8	49.8	<50.1	50.1				
Total GRO-DRO		<49.8	49.8	<50.1	50.1				
Total TPH		<49.8	49.8	<50.1	50.1				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 677085

for

WSP USA

Project Manager: Dan Moir

PLU 423

TE012920139

11.10.2020

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

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11.10.2020

Project Manager: **Dan Moir**
WSP USA
2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **677085**
PLU 423
Project Address:

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) 677085. 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. 677085 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,

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

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Sample Cross Reference 677085

WSP USA, Dallas, TX

PLU 423

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW02	S	11.04.2020 15:20	6 ft	677085-001
SW02A	S	11.04.2020 15:30	7 ft	677085-002

CASE NARRATIVE

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Client Name: WSP USA

Project Name: PLU 423

Project ID: *TE012920139*
Work Order Number(s): *677085*

Report Date: *11.10.2020*
Date Received: *11.05.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 677085

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677085-001	Date Collected:	11.04.2020 15:20	Sample Depth:	6 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**551**	49.7	mg/kg	11.06.2020 16:50		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:00	% Moisture:	
Seq Number:	3141703			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.06.2020 23:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.06.2020 23:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.06.2020 23:47	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.06.2020 23:47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.06.2020 23:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	11.06.2020 23:47	
o-Terphenyl	84-15-1	108	%	70-135	11.06.2020 23:47	

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Certificate of Analytical Results 677085

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677085-001	Date Collected:	11.04.2020 15:20	Sample Depth:	6 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 10:30	% Moisture:	
Seq Number:	3141707			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.07.2020 02:07	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.07.2020 02:07	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.07.2020 02:07	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.07.2020 02:07	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.07.2020 02:07	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.07.2020 02:07	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.07.2020 02:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.07.2020 02:07	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.07.2020 02:07	

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Certificate of Analytical Results 677085

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02A**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677085-002	Date Collected:	11.04.2020 15:30	Sample Depth:	7 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**556**	50.1	mg/kg	11.06.2020 16:56		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:00	% Moisture:	
Seq Number:	3141703			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.07.2020 00:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.07.2020 00:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.07.2020 00:07	U	1
Total GRO-DRO	PHC628	<50.1	50.1	mg/kg	11.07.2020 00:07	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.07.2020 00:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.07.2020 00:07	
o-Terphenyl	84-15-1	110	%	70-135	11.07.2020 00:07	

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Certificate of Analytical Results 677085

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02A**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677085-002	Date Collected:	11.04.2020 15:30	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 10:30	% Moisture:	
Seq Number:	3141707			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.07.2020 02:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.07.2020 02:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.07.2020 02:29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.07.2020 02:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.07.2020 02:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.07.2020 02:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.07.2020 02:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.07.2020 02:29	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.07.2020 02:29	

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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

QC Summary 677085

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WSP USA

PLU 423

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141708 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714669-1-BLK — LCS Sample Id: 7714669-1-BKS — LCSD Sample Id: 7714669-1-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	258	103	251	100	90-110	3	20	mg/kg	11.06.2020 14:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141708 — Matrix: Soil — Date Prep: 11.06.2020
Parent Sample Id: 677060-001 — MS Sample Id: 677060-001 S — MSD Sample Id: 677060-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1670	199	1850	90	1850	90	90-110	0	20	mg/kg	11.06.2020 14:22	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141708 — Matrix: Soil — Date Prep: 11.06.2020
Parent Sample Id: 677081-001 — MS Sample Id: 677081-001 S — MSD Sample Id: 677081-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	465	202	666	100	667	102	90-110	0	20	mg/kg	11.06.2020 15:39	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141703 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714687-1-BLK — LCS Sample Id: 7714687-1-BKS — LCSD Sample Id: 7714687-1-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	1130	113	1020	102	70-135	10	35	mg/kg	11.06.2020 15:58	
Diesel Range Organics (DRO)	<50.0	1000	1240	124	1120	112	70-135	10	35	mg/kg	11.06.2020 15:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	120		132		118		70-135	%	11.06.2020 15:58
o-Terphenyl	123		119		109		70-135	%	11.06.2020 15:58

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141703 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714687-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.06.2020 15:38	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 677085

WSP USA

PLU 423

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3141703 Matrix: Soil Date Prep: 11.06.2020
Parent Sample Id: 677064-001 MS Sample Id: 677064-001 S MSD Sample Id: 677064-001 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	863	86	891	89	70-135	3	35	mg/kg	11.06.2020 16:59	
Diesel Range Organics (DRO)	2170	1000	3020	85	3190	102	70-135	5	35	mg/kg	11.06.2020 16:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		98		70-135	%	11.06.2020 16:59
o-Terphenyl	108		92		70-135	%	11.06.2020 16:59

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141707 Matrix: Solid Date Prep: 11.06.2020
MB Sample Id: 7714665-1-BLK LCS Sample Id: 7714665-1-BKS LCSD Sample Id: 7714665-1-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	0.106	106	0.0898	90	70-130	17	35	mg/kg	11.06.2020 13:04	
Toluene	<0.00200	0.100	0.103	103	0.0849	85	70-130	19	35	mg/kg	11.06.2020 13:04	
Ethylbenzene	<0.00200	0.100	0.104	104	0.0903	90	71-129	14	35	mg/kg	11.06.2020 13:04	
m,p-Xylenes	<0.00400	0.200	0.214	107	0.183	92	70-135	16	35	mg/kg	11.06.2020 13:04	
o-Xylene	<0.00200	0.100	0.104	104	0.0902	90	71-133	14	35	mg/kg	11.06.2020 13:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		98		70-130	%	11.06.2020 13:04
4-Bromofluorobenzene	109		104		103		70-130	%	11.06.2020 13:04

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141707 Matrix: Soil Date Prep: 11.06.2020
Parent Sample Id: 677064-001 MS Sample Id: 677064-001 S MSD Sample Id: 677064-001 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	0.0970	97	0.0852	86	70-130	13	35	mg/kg	11.06.2020 13:49	
Toluene	<0.00200	0.0998	0.0976	98	0.0806	81	70-130	19	35	mg/kg	11.06.2020 13:49	
Ethylbenzene	<0.00200	0.0998	0.0790	79	0.0833	84	71-129	5	35	mg/kg	11.06.2020 13:49	
m,p-Xylenes	<0.00399	0.200	0.205	103	0.171	86	70-135	18	35	mg/kg	11.06.2020 13:49	
o-Xylene	<0.00200	0.0998	0.0803	80	0.0837	84	71-133	4	35	mg/kg	11.06.2020 13:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		93		70-130	%	11.06.2020 13:49
4-Bromofluorobenzene	99		97		70-130	%	11.06.2020 13:49

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

XENCO LABORATORIES

Chain of Custody

Work Order No: 677085

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)

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 423	Turn Around	
Project Number:	TE012920139	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT

Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.4 / 1.2	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes ~~No~~ N/A	Total Containers:	2

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW02	S	11/4/2020	1520	6'	1	X	X	X	
SW02A	S	11/4/2020	1530	7'	1	X	X	X	

Work Order Notes

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

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 Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	[signature]	11-5-20 1653	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 11.05.2020 04.53.00 PM

Work Order #: 677085

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)?	1.2	
#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**	Samples received in bulk containers.
#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**	

*** 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: 11.06.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.06.2020

Jessica Kramer

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Certificate of Analysis Summary 677081

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.05.2020 16:53
Report Date: 12.02.2020 11:37
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	677081-001		677081-002		677081-003		677081-004		677081-005		677081-006	
	Field Id:	FS01		FS02		FS03		FS04		FS05		FS06	
	Depth:	1- ft		1- ft		1- ft		1- ft		7- ft		7- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.03.2020 11:00		11.03.2020 11:10		11.03.2020 11:20		11.03.2020 11:30		11.04.2020 15:50		11.04.2020 16:00	
BTEX by EPA 8021B	***Extracted:***	11.09.2020 10:00		11.09.2020 10:00		11.09.2020 10:00		11.09.2020 10:00		11.09.2020 10:00		11.09.2020 10:00	
	Analyzed:	11.09.2020 13:19		11.09.2020 14:14		11.09.2020 14:37		11.09.2020 14:59		11.09.2020 15:21		11.09.2020 15:44	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Toluene		<0.00198	0.00198	<0.00201	0.00201	<0.00198	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Ethylbenzene		<0.00198	0.00198	<0.00201	0.00201	0.00396	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
m,p-Xylenes		<0.00397	0.00397	<0.00403	0.00403	0.0107	0.00396	<0.00403	0.00403	<0.00403	0.00403	<0.00399	0.00399
o-Xylene		0.00294	0.00198	<0.00201	0.00201	0.0147	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Total Xylenes		0.00294	0.00198	<0.00201	0.00201	0.0254	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Total BTEX		0.00294	0.00198	<0.00201	0.00201	0.0294	0.00198	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	11.06.2020 14:00		11.06.2020 14:00		11.06.2020 14:00		11.06.2020 14:00		11.06.2020 14:00		11.06.2020 14:00	
	Analyzed:	11.06.2020 15:34		11.06.2020 15:50		11.06.2020 15:56		11.06.2020 16:23		11.06.2020 16:29		11.06.2020 16:34	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		465	10.0	594	9.98	1620	49.8	6430	49.9	628	49.6	515	49.9
TPH by SW8015 Mod	***Extracted:***	11.06.2020 13:03		11.06.2020 13:03		11.06.2020 13:03		11.06.2020 13:03		11.06.2020 13:03		11.06.2020 13:03	
	Analyzed:	11.06.2020 16:38		11.06.2020 17:40		11.06.2020 18:00		11.06.2020 18:20		11.06.2020 18:40		11.06.2020 19:01	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<49.8	49.8	<50.1	50.1	<50.2	50.2	<50.3	50.3	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		1620	49.8	163	50.1	408	50.2	983	50.3	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		185	49.8	<50.1	50.1	<50.2	50.2	112	50.3	<49.8	49.8	<50.0	50.0
Total GRO-DRO		1620	49.8	163	50.1	408	50.2	983	50.3	<49.8	49.8	<50.0	50.0
Total TPH		1810	49.8	163	50.1	408	50.2	1100	50.3	<49.8	49.8	<50.0	50.0

BRL - Below Reporting Limit

Jessica Kramer

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

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Certificate of Analysis Summary 677081

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.05.2020 16:53
Report Date: 12.02.2020 11:37
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	677081-007		677081-008					
	Field Id:	FS07		FS08					
	Depth:	2- ft		1- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	11.04.2020 13:00		11.05.2020 10:05					
BTEX by EPA 8021B	***Extracted:***	11.09.2020 10:00		11.09.2020 10:00					
	Analyzed:	11.09.2020 16:06		11.09.2020 16:29					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00200	0.00200				
Toluene		<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00401	0.00401	<0.00399	0.00399				
o-Xylene		<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200				
Total BTEX		<0.00200	0.00200	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	11.06.2020 14:00		11.06.2020 14:00					
	Analyzed:	11.06.2020 16:40		11.06.2020 16:45					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		50.6	9.92	187	9.98				
TPH by SW8015 Mod	***Extracted:***	11.06.2020 13:03		11.06.2020 13:03					
	Analyzed:	11.06.2020 19:21		11.06.2020 19:41					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<50.0	50.0				
Diesel Range Organics (DRO)		<49.9	49.9	262	50.0				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<50.0	50.0				
Total GRO-DRO		<49.9	49.9	262	50.0				
Total TPH		<49.9	49.9	262	50.0				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 677081

for

WSP USA

Project Manager: Dan Moir

PLU 423

TE012920139

12.02.2020

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

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12.02.2020

Project Manager: **Dan Moir**
WSP USA
2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **677081**
PLU 423
Project Address:

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) 677081. 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. 677081 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,

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

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Sample Cross Reference 677081

WSP USA, Dallas, TX

PLU 423

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
FS01	S	11.03.2020 11:00	1 ft	677081-001
FS02	S	11.03.2020 11:10	1 ft	677081-002
FS03	S	11.03.2020 11:20	1 ft	677081-003
FS04	S	11.03.2020 11:30	1 ft	677081-004
FS05	S	11.04.2020 15:50	7 ft	677081-005
FS06	S	11.04.2020 16:00	7 ft	677081-006
FS07	S	11.04.2020 13:00	2 ft	677081-007
FS08	S	11.05.2020 10:05	1 ft	677081-008

CASE NARRATIVE

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Client Name: WSP USA

Project Name: PLU 423

Project ID: *TE012920139*
Work Order Number(s): *677081*

Report Date: *12.02.2020*
Date Received: *11.05.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 677081

WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-001	Date Collected:	11.03.2020 11:00	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**465**	10.0	mg/kg	11.06.2020 15:34		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:03	% Moisture:	
Seq Number:	3141704			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.06.2020 16:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	**1620**	49.8	mg/kg	11.06.2020 16:38		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**185**	49.8	mg/kg	11.06.2020 16:38		1
Total GRO-DRO	PHC628	**1620**	49.8	mg/kg	11.06.2020 16:38		1
Total TPH	PHC635	**1810**	49.8	mg/kg	11.06.2020 16:38		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.06.2020 16:38	
o-Terphenyl	84-15-1	125	%	70-135	11.06.2020 16:38	

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Certificate of Analytical Results 677081

WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS01**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-001	Date Collected:	11.03.2020 11:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.09.2020 13:19	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.09.2020 13:19	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.09.2020 13:19	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.09.2020 13:19	U	1
o-Xylene	95-47-6	**0.00294**	0.00198	mg/kg	11.09.2020 13:19		1
Total Xylenes	1330-20-7	**0.00294**	0.00198	mg/kg	11.09.2020 13:19		1
Total BTEX		**0.00294**	0.00198	mg/kg	11.09.2020 13:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.09.2020 13:19	
1,4-Difluorobenzene	540-36-3	97	%	70-130	11.09.2020 13:19	

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Certificate of Analytical Results 677081

WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-002	Date Collected:	11.03.2020 11:10	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**594**	9.98	mg/kg	11.06.2020 15:50		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:03	% Moisture:	
Seq Number:	3141704			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.06.2020 17:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	**163**	50.1	mg/kg	11.06.2020 17:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.06.2020 17:40	U	1
Total GRO-DRO	PHC628	**163**	50.1	mg/kg	11.06.2020 17:40		1
Total TPH	PHC635	**163**	50.1	mg/kg	11.06.2020 17:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	126	%	70-135	11.06.2020 17:40	
o-Terphenyl	84-15-1	120	%	70-135	11.06.2020 17:40	

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Certificate of Analytical Results 677081

WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS02**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-002	Date Collected:	11.03.2020 11:10	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.09.2020 14:14	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.09.2020 14:14	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.09.2020 14:14	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.09.2020 14:14	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.09.2020 14:14	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.09.2020 14:14	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.09.2020 14:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	11.09.2020 14:14	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.09.2020 14:14	

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Certificate of Analytical Results 677081

WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-003	Date Collected:	11.03.2020 11:20	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1620**	49.8	mg/kg	11.06.2020 15:56		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:03	% Moisture:	
Seq Number:	3141704			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.06.2020 18:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	**408**	50.2	mg/kg	11.06.2020 18:00		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.06.2020 18:00	U	1
Total GRO-DRO	PHC628	**408**	50.2	mg/kg	11.06.2020 18:00		1
Total TPH	PHC635	**408**	50.2	mg/kg	11.06.2020 18:00		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	11.06.2020 18:00	
o-Terphenyl	84-15-1	115	%	70-135	11.06.2020 18:00	

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Certificate of Analytical Results 677081

WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS03**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-003	Date Collected:	11.03.2020 11:20	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.09.2020 14:37	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.09.2020 14:37	U	1
Ethylbenzene	100-41-4	**0.00396**	0.00198	mg/kg	11.09.2020 14:37		1
m,p-Xylenes	179601-23-1	**0.0107**	0.00396	mg/kg	11.09.2020 14:37		1
o-Xylene	95-47-6	**0.0147**	0.00198	mg/kg	11.09.2020 14:37		1
Total Xylenes	1330-20-7	**0.0254**	0.00198	mg/kg	11.09.2020 14:37		1
Total BTEX		**0.0294**	0.00198	mg/kg	11.09.2020 14:37		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	11.09.2020 14:37	
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.09.2020 14:37	

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Certificate of Analytical Results 677081

WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-004	Date Collected:	11.03.2020 11:30	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6430**	49.9	mg/kg	11.06.2020 16:23		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:03	% Moisture:	
Seq Number:	3141704			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.06.2020 18:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	**983**	50.3	mg/kg	11.06.2020 18:20		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**112**	50.3	mg/kg	11.06.2020 18:20		1
Total GRO-DRO	PHC628	**983**	50.3	mg/kg	11.06.2020 18:20		1
Total TPH	PHC635	**1100**	50.3	mg/kg	11.06.2020 18:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.06.2020 18:20	
o-Terphenyl	84-15-1	117	%	70-135	11.06.2020 18:20	

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WSP USA, Dallas, TX

PLU 423

Sample Id:	**FS04**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-004	Date Collected:	11.03.2020 11:30	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.09.2020 14:59	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.09.2020 14:59	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.09.2020 14:59	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.09.2020 14:59	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.09.2020 14:59	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.09.2020 14:59	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.09.2020 14:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.09.2020 14:59	
1,4-Difluorobenzene	540-36-3	99	%	70-130	11.09.2020 14:59	

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Sample Id:	**FS05**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-005	Date Collected:	11.04.2020 15:50	Sample Depth:	7 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB

Analyst: MAB — Date Prep: 11.06.2020 14:00 — % Moisture: Basis: Wet Weight

Seq Number: 3141708

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**628**	49.6	mg/kg	11.06.2020 16:29		5

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB

Analyst: CAC — Date Prep: 11.06.2020 13:03 — % Moisture: Basis: Wet Weight

Seq Number: 3141704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.06.2020 18:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.06.2020 18:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.06.2020 18:40	U	1
Total GRO-DRO	PHC628	<49.8	49.8	mg/kg	11.06.2020 18:40	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.06.2020 18:40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	128	%	70-135	11.06.2020 18:40	
o-Terphenyl	84-15-1	122	%	70-135	11.06.2020 18:40	

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PLU 423

Sample Id:	**FS05**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-005	Date Collected:	11.04.2020 15:50	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.09.2020 15:21	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.09.2020 15:21	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.09.2020 15:21	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.09.2020 15:21	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.09.2020 15:21	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.09.2020 15:21	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.09.2020 15:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.09.2020 15:21	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.09.2020 15:21	

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Sample Id:	**FS06**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-006	Date Collected:	11.04.2020 16:00	Sample Depth:	7 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB

Analyst: MAB — Date Prep: 11.06.2020 14:00 — % Moisture: Basis: Wet Weight

Seq Number: 3141708

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**515**	49.9	mg/kg	11.06.2020 16:34		5

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB

Analyst: CAC — Date Prep: 11.06.2020 13:03 — % Moisture: Basis: Wet Weight

Seq Number: 3141704

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.06.2020 19:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.06.2020 19:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.06.2020 19:01	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.06.2020 19:01	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.06.2020 19:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	130	%	70-135	11.06.2020 19:01	
o-Terphenyl	84-15-1	126	%	70-135	11.06.2020 19:01	

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PLU 423

Sample Id:	**FS06**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-006	Date Collected:	11.04.2020 16:00	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.09.2020 15:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.09.2020 15:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.09.2020 15:44	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.09.2020 15:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.09.2020 15:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.09.2020 15:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.09.2020 15:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.09.2020 15:44	
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.09.2020 15:44	

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PLU 423

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-007	Date Collected:	11.04.2020 13:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**50.6**	9.92	mg/kg	11.06.2020 16:40		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:03	% Moisture:	
Seq Number:	3141704			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.06.2020 19:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.06.2020 19:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.06.2020 19:21	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	11.06.2020 19:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.06.2020 19:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.06.2020 19:21	
o-Terphenyl	84-15-1	118	%	70-135	11.06.2020 19:21	

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PLU 423

Sample Id:	**FS07**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-007	Date Collected:	11.04.2020 13:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.09.2020 16:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.09.2020 16:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.09.2020 16:06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.09.2020 16:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.09.2020 16:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.09.2020 16:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.09.2020 16:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.09.2020 16:06	
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.09.2020 16:06	

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PLU 423

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-008	Date Collected:	11.05.2020 10:05	Sample Depth:	1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.06.2020 14:00	% Moisture:	
Seq Number:	3141708			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**187**	9.98	mg/kg	11.06.2020 16:45		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.06.2020 13:03	% Moisture:	
Seq Number:	3141704			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.06.2020 19:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**262**	50.0	mg/kg	11.06.2020 19:41		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.06.2020 19:41	U	1
Total GRO-DRO	PHC628	**262**	50.0	mg/kg	11.06.2020 19:41		1
Total TPH	PHC635	**262**	50.0	mg/kg	11.06.2020 19:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	11.06.2020 19:41	
o-Terphenyl	84-15-1	119	%	70-135	11.06.2020 19:41	

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PLU 423

Sample Id:	**FS08**	Matrix:	Soil	Date Received:	11.05.2020 16:53
Lab Sample Id:	677081-008	Date Collected:	11.05.2020 10:05	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.09.2020 10:00	% Moisture:	
Seq Number:	3141784			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.09.2020 16:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.09.2020 16:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.09.2020 16:29	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.09.2020 16:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.09.2020 16:29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.09.2020 16:29	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.09.2020 16:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.09.2020 16:29	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.09.2020 16:29	

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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

QC Summary 677081

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PLU 423

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141708 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714669-1-BLK — LCS Sample Id: 7714669-1-BKS — LCSD Sample Id: 7714669-1-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	258	103	251	100	90-110	3	20	mg/kg	11.06.2020 14:06	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141708 — Matrix: Soil — Date Prep: 11.06.2020
Parent Sample Id: 677060-001 — MS Sample Id: 677060-001 S — MSD Sample Id: 677060-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1670	199	1850	90	1850	90	90-110	0	20	mg/kg	11.06.2020 14:22	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141708 — Matrix: Soil — Date Prep: 11.06.2020
Parent Sample Id: 677081-001 — MS Sample Id: 677081-001 S — MSD Sample Id: 677081-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	465	202	666	100	667	102	90-110	0	20	mg/kg	11.06.2020 15:39	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141704 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714688-1-BLK — LCS Sample Id: 7714688-1-BKS — LCSD Sample Id: 7714688-1-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	907	91	898	90	70-135	1	35	mg/kg	11.06.2020 15:58	
Diesel Range Organics (DRO)	<50.0	1000	992	99	950	95	70-135	4	35	mg/kg	11.06.2020 15:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		107		120		70-135	%	11.06.2020 15:58
o-Terphenyl	89		96		92		70-135	%	11.06.2020 15:58

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141704 — Matrix: Solid — Date Prep: 11.06.2020
MB Sample Id: 7714688-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.06.2020 15:38	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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

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QC Summary 677081

WSP USA

PLU 423

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P

Seq Number: 3141704 Matrix: Soil Date Prep: 11.06.2020

Parent Sample Id: 677081-001 MS Sample Id: 677081-001 S MSD Sample Id: 677081-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	958	96	895	90	70-135	7	35	mg/kg	11.06.2020 16:59	
Diesel Range Organics (DRO)	1620	999	2700	108	2500	88	70-135	8	35	mg/kg	11.06.2020 16:59	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		126		70-135	%	11.06.2020 16:59
o-Terphenyl	125		120		70-135	%	11.06.2020 16:59

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3141784 Matrix: Solid Date Prep: 11.09.2020

MB Sample Id: 7714666-1-BLK LCS Sample Id: 7714666-1-BKS LCSD Sample Id: 7714666-1-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	0.0967	97	0.100	100	70-130	3	35	mg/kg	11.09.2020 10:53	
Toluene	<0.00200	0.100	0.0762	76	0.0790	79	70-130	4	35	mg/kg	11.09.2020 10:53	
Ethylbenzene	<0.00200	0.100	0.0952	95	0.0993	99	71-129	4	35	mg/kg	11.09.2020 10:53	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.201	101	70-135	4	35	mg/kg	11.09.2020 10:53	
o-Xylene	<0.00200	0.100	0.0950	95	0.0988	99	71-133	4	35	mg/kg	11.09.2020 10:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		99		70-130	%	11.09.2020 10:53
4-Bromofluorobenzene	102		103		103		70-130	%	11.09.2020 10:53

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3141784 Matrix: Soil Date Prep: 11.09.2020

Parent Sample Id: 677081-001 MS Sample Id: 677081-001 S MSD Sample Id: 677081-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0982	99	0.0833	83	70-130	16	35	mg/kg	11.09.2020 12:23	
Toluene	<0.00199	0.0994	0.0776	78	0.0735	74	70-130	5	35	mg/kg	11.09.2020 12:23	
Ethylbenzene	<0.00199	0.0994	0.0997	100	0.0876	88	71-129	13	35	mg/kg	11.09.2020 12:23	
m,p-Xylenes	<0.00398	0.199	0.203	102	0.159	80	70-135	24	35	mg/kg	11.09.2020 12:23	
o-Xylene	0.00294	0.0994	0.0989	97	0.0788	76	71-133	23	35	mg/kg	11.09.2020 12:23	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		99		70-130	%	11.09.2020 12:23
4-Bromofluorobenzene	103		113		70-130	%	11.09.2020 12:23

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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)
www.xenco.com

Work Order No: 677081

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 423	Turn Around	
Project Number:	TE012920139	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.4/1.2	Thermometer ID	
Received Intact:	(Yes) No	T-NM-002	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	8

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	11/3/2020	1100	1'	1	X	X	X
FS02	S	11/3/2020	1110	1'	1	X	X	X
FS03	S	11/3/2020	1120	1'	1	X	X	X
FS04	S	11/3/2020	1130	1'	1	X	X	X
FS05	S	11/4/2020	1550	7'	1	X	X	X
FS06	S	11/4/2020	1600	7'	1	X	X	X
FS07	S	11/4/2020	1300	2'	1	X	X	X
FS08	S	11/5/2020	1005	1'	1	X	X	X

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cloe Cuffle	11.5.26 1653	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 11.05.2020 04.53.00 PM

Work Order #: 677081

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)?	1.2	
#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**	Samples received in bulk containers.
#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**	

*** 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: 11.06.2020

Cloe Clifton

Checklist reviewed by: Jessica Kramer Date: 11.06.2020

Jessica Kramer

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Certificate of Analysis Summary 677371

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 11.10.2020 10:30
Report Date: 11.13.2020 14:51
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	677371-001		677371-002		677371-003		677371-004					
	Field Id:	PH01		PH02		PH03		PH04					
	Depth:	7- ft		7- ft		7- ft		7- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	11.09.2020 10:50		11.09.2020 15:45		11.09.2020 15:20		11.09.2020 15:03					
BTEX by EPA 8021B	***Extracted:***	11.10.2020 13:01		11.10.2020 13:01		11.10.2020 13:01		11.10.2020 13:01					
	Analyzed:	11.10.2020 19:23		11.10.2020 19:45		11.10.2020 20:07		11.10.2020 20:30					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201				
Toluene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201				
Ethylbenzene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201				
m,p-Xylenes		<0.00399	0.00399	<0.00402	0.00402	<0.00399	0.00399	<0.00402	0.00402				
o-Xylene		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201				
Total Xylenes		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201				
Total BTEX		<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200	<0.00201	0.00201				
Chloride by EPA 300	***Extracted:***	11.10.2020 14:05		11.10.2020 14:05		11.10.2020 14:05		11.10.2020 14:05					
	Analyzed:	11.10.2020 17:18		11.10.2020 17:24		11.10.2020 17:29		11.10.2020 17:35					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		818	50.1	944	50.1	1080	49.7	157	50.1				
TPH by SW8015 Mod	***Extracted:***	11.10.2020 12:03		11.10.2020 12:03		11.10.2020 12:03		11.10.2020 12:03					
	Analyzed:	11.10.2020 16:18		11.10.2020 17:20		11.10.2020 17:41		11.10.2020 18:02					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.2	50.2	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Diesel Range Organics (DRO)		<50.2	50.2	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.2	50.2	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Total GRO-DRO		<50.2	50.2	<50.0	50.0	<50.0	50.0	<50.0	50.0				
Total TPH		<50.2	50.2	<50.0	50.0	<50.0	50.0	<50.0	50.0				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 677371

for

WSP USA

Project Manager: Dan Moir

PLU 423

TE012920139

11.13.2020

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

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11.13.2020

Project Manager: **Dan Moir**
WSP USA
2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **677371**
PLU 423
Project Address:

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) 677371. 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. 677371 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,

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

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Sample Cross Reference 677371

WSP USA, Dallas, TX

PLU 423

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH01	S	11.09.2020 10:50	7 ft	677371-001
PH02	S	11.09.2020 15:45	7 ft	677371-002
PH03	S	11.09.2020 15:20	7 ft	677371-003
PH04	S	11.09.2020 15:03	7 ft	677371-004

CASE NARRATIVE

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Client Name: WSP USA

Project Name: PLU 423

Project ID: *TE012920139*
Work Order Number(s): *677371*

Report Date: *11.13.2020*
Date Received: *11.10.2020*

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-001	Date Collected:	11.09.2020 10:50	Sample Depth:	7 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB
Analyst: MAB
Seq Number: 3141921

Date Prep: 11.10.2020 14:05

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**818**	50.1	mg/kg	11.10.2020 17:18		5

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB
Analyst: CAC
Seq Number: 3141920

Date Prep: 11.10.2020 12:03

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.10.2020 16:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.10.2020 16:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.10.2020 16:18	U	1
Total GRO-DRO	PHC628	<50.2	50.2	mg/kg	11.10.2020 16:18	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.10.2020 16:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.10.2020 16:18	
o-Terphenyl	84-15-1	110	%	70-135	11.10.2020 16:18	

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH01**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-001	Date Collected:	11.09.2020 10:50	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.10.2020 13:01	% Moisture:	
Seq Number:	3141914			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.10.2020 19:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.10.2020 19:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.10.2020 19:23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.10.2020 19:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.10.2020 19:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.10.2020 19:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.10.2020 19:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.10.2020 19:23	
4-Bromofluorobenzene	460-00-4	121	%	70-130	11.10.2020 19:23	

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-002	Date Collected:	11.09.2020 15:45	Sample Depth:	7 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.10.2020 14:05	% Moisture:	
Seq Number:	3141921			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**944**	50.1	mg/kg	11.10.2020 17:24		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.10.2020 12:03	% Moisture:	
Seq Number:	3141920			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.10.2020 17:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.10.2020 17:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.10.2020 17:20	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.10.2020 17:20	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.10.2020 17:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	11.10.2020 17:20	
o-Terphenyl	84-15-1	106	%	70-135	11.10.2020 17:20	

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH02**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-002	Date Collected:	11.09.2020 15:45	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.10.2020 13:01	% Moisture:	
Seq Number:	3141914			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.10.2020 19:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.10.2020 19:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.10.2020 19:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.10.2020 19:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.10.2020 19:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.10.2020 19:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.10.2020 19:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.10.2020 19:45	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.10.2020 19:45	

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-003	Date Collected:	11.09.2020 15:20	Sample Depth:	7 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.10.2020 14:05	% Moisture:	
Seq Number:	3141921			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1080**	49.7	mg/kg	11.10.2020 17:29		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.10.2020 12:03	% Moisture:	
Seq Number:	3141920			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.10.2020 17:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.10.2020 17:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.10.2020 17:41	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.10.2020 17:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.10.2020 17:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.10.2020 17:41	
o-Terphenyl	84-15-1	116	%	70-135	11.10.2020 17:41	

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH03**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-003	Date Collected:	11.09.2020 15:20	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.10.2020 13:01	% Moisture:	
Seq Number:	3141914			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.10.2020 20:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.10.2020 20:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.10.2020 20:07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.10.2020 20:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.10.2020 20:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.10.2020 20:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.10.2020 20:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.10.2020 20:07	
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.10.2020 20:07	

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-004	Date Collected:	11.09.2020 15:03	Sample Depth:	7 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB
Analyst: MAB
Seq Number: 3141921

Date Prep: 11.10.2020 14:05

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**157**	50.1	mg/kg	11.10.2020 17:35		5

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB
Analyst: CAC
Seq Number: 3141920

Date Prep: 11.10.2020 12:03

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.10.2020 18:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.10.2020 18:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.10.2020 18:02	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	11.10.2020 18:02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.10.2020 18:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-135	11.10.2020 18:02	
o-Terphenyl	84-15-1	110	%	70-135	11.10.2020 18:02	

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Certificate of Analytical Results 677371

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH04**	Matrix:	Soil	Date Received:	11.10.2020 10:30
Lab Sample Id:	677371-004	Date Collected:	11.09.2020 15:03	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.10.2020 13:01	% Moisture:	
Seq Number:	3141914			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.10.2020 20:30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.10.2020 20:30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.10.2020 20:30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.10.2020 20:30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.10.2020 20:30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.10.2020 20:30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.10.2020 20:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	114	%	70-130	11.10.2020 20:30	
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.10.2020 20:30	

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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

QC Summary 677371

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WSP USA

PLU 423

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141921 — Matrix: Solid — Date Prep: 11.10.2020
MB Sample Id: 7714902-1-BLK — LCS Sample Id: 7714902-1-BKS — LCSD Sample Id: 7714902-1-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	251	100	247	99	90-110	2	20	mg/kg	11.10.2020 16:13	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141921 — Matrix: Soil — Date Prep: 11.10.2020
Parent Sample Id: 677299-002 — MS Sample Id: 677299-002 S — MSD Sample Id: 677299-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	483	200	685	101	686	101	90-110	0	20	mg/kg	11.10.2020 16:29	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3141921 — Matrix: Soil — Date Prep: 11.10.2020
Parent Sample Id: 677372-003 — MS Sample Id: 677372-003 S — MSD Sample Id: 677372-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	17400	200	17600	100	17600	100	90-110	0	20	mg/kg	11.10.2020 17:57	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141920 — Matrix: Solid — Date Prep: 11.10.2020
MB Sample Id: 7714924-1-BLK — LCS Sample Id: 7714924-1-BKS — LCSD Sample Id: 7714924-1-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	948	95	928	93	70-135	2	35	mg/kg	11.10.2020 15:36	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1040	104	70-135	0	35	mg/kg	11.10.2020 15:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		128		110		70-135	%	11.10.2020 15:36
o-Terphenyl	98		98		100		70-135	%	11.10.2020 15:36

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3141920 — Matrix: Solid — Date Prep: 11.10.2020
MB Sample Id: 7714924-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.10.2020 15:14	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

QC Summary 677371

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WSP USA

PLU 423

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3141920 Matrix: Soil Date Prep: 11.10.2020
Parent Sample Id: 677371-001 MS Sample Id: 677371-001 S MSD Sample Id: 677371-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	995	922	93	925	93	70-135	0	35	mg/kg	11.10.2020 16:39	
Diesel Range Organics (DRO)	<49.8	995	911	92	920	92	70-135	1	35	mg/kg	11.10.2020 16:39	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		110		70-135	%	11.10.2020 16:39
o-Terphenyl	118		94		70-135	%	11.10.2020 16:39

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141914 Matrix: Solid Date Prep: 11.10.2020
MB Sample Id: 7714901-1-BLK LCS Sample Id: 7714901-1-BKS LCSD Sample Id: 7714901-1-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	0.0955	96	0.0977	98	70-130	2	35	mg/kg	11.10.2020 15:04	
Toluene	<0.00200	0.100	0.0906	91	0.0902	90	70-130	0	35	mg/kg	11.10.2020 15:04	
Ethylbenzene	<0.00200	0.100	0.0934	93	0.0939	94	71-129	1	35	mg/kg	11.10.2020 15:04	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.192	96	70-135	2	35	mg/kg	11.10.2020 15:04	
o-Xylene	<0.00200	0.100	0.0941	94	0.0949	95	71-133	1	35	mg/kg	11.10.2020 15:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		101		70-130	%	11.10.2020 15:04
4-Bromofluorobenzene	112		107		110		70-130	%	11.10.2020 15:04

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3141914 Matrix: Soil Date Prep: 11.10.2020
Parent Sample Id: 677299-002 MS Sample Id: 677299-002 S MSD Sample Id: 677299-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.112	111	0.108	108	70-130	4	35	mg/kg	11.10.2020 15:48	
Toluene	<0.00201	0.101	0.106	105	0.102	102	70-130	4	35	mg/kg	11.10.2020 15:48	
Ethylbenzene	<0.00201	0.101	0.110	109	0.106	106	71-129	4	35	mg/kg	11.10.2020 15:48	
m,p-Xylenes	<0.00402	0.201	0.221	110	0.214	107	70-135	3	35	mg/kg	11.10.2020 15:48	
o-Xylene	<0.00201	0.101	0.111	110	0.107	107	71-133	4	35	mg/kg	11.10.2020 15:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		101		70-130	%	11.10.2020 15:48
4-Bromofluorobenzene	112		112		70-130	%	11.10.2020 15:48

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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)
www.xenco.com

Work Order No: 677371

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 423	Turn Around	
Project Number:	TE012920139	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	0.8/0.6	Temp Blank:	Yes No
Received Intact:	Yes No	Thermometer ID	T-NM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	11.9.20	1050	7'	1	X	X	X
PH02			1545					
PH03			1520					
PH04			1503					

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			11/10/20 1020	2	Clae Cuffle	11.10.20 1030
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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Certificate of Analysis Summary 678523

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.19.2020 15:17
Report Date: 11.23.2020 16:23
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678523-001		678523-002		678523-003		678523-004		678523-005		678523-006	
	Field Id:	SW02B		SW02C		SW03		PH01A		PH02A		PH03A	
	Depth:	2- ft		4- ft		0-2 ft		3- ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.17.2020 12:20		11.17.2020 12:30		11.17.2020 10:15		11.17.2020 12:10		11.17.2020 11:00		11.17.2020 10:45	
BTEX by EPA 8021B	***Extracted:***	11.20.2020 14:51		11.20.2020 14:51		11.21.2020 17:04		11.21.2020 17:04		11.21.2020 17:04		11.21.2020 17:04	
	Analyzed:	11.20.2020 23:59		11.21.2020 00:22		11.22.2020 11:00		11.22.2020 11:22		11.22.2020 11:44		11.22.2020 12:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		1.25	0.200	<0.0500	0.0500	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00202	0.00202
Toluene		18.7	0.200	11.3	0.200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00202	0.00202
Ethylbenzene		8.10	0.200	10.6	0.200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00202	0.00202
m,p-Xylenes		41.5	0.401	34.9	0.400	<0.00398	0.00398	<0.00401	0.00401	<0.00403	0.00403	<0.00404	0.00404
o-Xylene		20.4	0.200	15.7	0.200	<0.00199	0.00199	<0.00200	0.00200	<0.00202	0.00202	<0.00202	0.00202
Total Xylenes		61.90	0.2000	50.60	0.2000	<0.001990	0.001990	<0.002000	0.002000	<0.002020	0.002020	<0.002020	0.002020
Total BTEX		89.95	0.2000	72.50	0.05000	<0.001990	0.001990	<0.002000	0.002000	<0.002020	0.002020	<0.002020	0.002020

BRL - Below Reporting Limit

Jessica Kramer

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

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Certificate of Analysis Summary 678523

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.19.2020 15:17
Report Date: 11.23.2020 16:23
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678523-001		678523-002		678523-003		678523-004		678523-005		678523-006	
	Field Id:	SW02B		SW02C		SW03		PH01A		PH02A		PH03A	
	Depth:	2- ft		4- ft		0-2 ft		3- ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.17.2020 12:20		11.17.2020 12:30		11.17.2020 10:15		11.17.2020 12:10		11.17.2020 11:00		11.17.2020 10:45	
TPH by SW8015 Mod	***Extracted:***	11.20.2020 12:00		11.20.2020 12:00		11.20.2020 12:00		11.20.2020 12:00		11.20.2020 18:00		11.20.2020 18:00	
	Analyzed:	11.21.2020 04:14		11.21.2020 04:34		11.21.2020 04:54		11.21.2020 05:14		11.20.2020 23:11		11.20.2020 23:31	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		3960	249	3260	251	<50.1	50.1	<49.8	49.8	<49.9	49.9	<50.2	50.2
Diesel Range Organics (DRO)		18400	249	13900	251	<50.1	50.1	<49.8	49.8	85.7	49.9	<50.2	50.2
Motor Oil Range Hydrocarbons (MRO)		1650	249	1250	251	<50.1	50.1	<49.8	49.8	<49.9	49.9	<50.2	50.2
Total GRO-DRO		22360	249.0	17160	251.0	<50.10	50.10	<49.80	49.80	85.70	49.90	<50.20	50.20
Total TPH		24010	249.0	18410	251.0	<50.10	50.10	<49.80	49.80	85.70	49.90	<50.20	50.20

BRL - Below Reporting Limit

Jessica Kramer

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Certificate of Analysis Summary 678523

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.19.2020 15:17
Report Date: 11.23.2020 16:23
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	678523-001		678523-002		678523-003		678523-004		678523-005		678523-006	
	Field Id:	SW02B		SW02C		SW03		PH01A		PH02A		PH03A	
	Depth:	2- ft		4- ft		0-2 ft		3- ft		3- ft		3- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	11.17.2020 12:20		11.17.2020 12:30		11.17.2020 10:15		11.17.2020 12:10		11.17.2020 11:00		11.17.2020 10:45	
Chloride by EPA 300	***Extracted:***	11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00		11.20.2020 15:00	
	Analyzed:	11.20.2020 21:42		11.20.2020 21:57		11.20.2020 22:03		11.20.2020 22:18		11.20.2020 22:23		11.20.2020 22:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		358	9.96	334	10.0	3440	50.4	1980	50.1	4010	49.6	129	9.98

BRL - Below Reporting Limit

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

Jessica Kramer

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Certificate of Analysis Summary 678523

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.19.2020 15:17
Report Date: 11.23.2020 16:23
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	678523-007		678523-008					
	Field Id:	PH04A		FS01A					
	Depth:	3- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	11.17.2020 10:30		11.17.2020 10:00					
BTEX by EPA 8021B	***Extracted:***	11.21.2020 17:04		11.21.2020 17:04					
	Analyzed:	11.22.2020 12:29		11.22.2020 13:49					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00199	0.00199				
Toluene		<0.00200	0.00200	<0.00199	0.00199				
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199				
m,p-Xylenes		<0.00401	0.00401	<0.00398	0.00398				
o-Xylene		<0.00200	0.00200	<0.00199	0.00199				
Total Xylenes		<0.002000	0.002000	<0.001990	0.001990				
Total BTEX		<0.002000	0.002000	<0.001990	0.001990				
TPH by SW8015 Mod	***Extracted:***	11.20.2020 18:00		11.20.2020 18:00					
	Analyzed:	11.20.2020 23:52		11.21.2020 00:11					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.1	50.1				
Diesel Range Organics (DRO)		<50.1	50.1	269	50.1				
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.1	50.1				
Total GRO-DRO		<50.10	50.10	269.0	50.10				
Total TPH		<50.10	50.10	269.0	50.10				

BRL - Below Reporting Limit

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

Jessica Kramer

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Certificate of Analysis Summary 678523

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Thu 11.19.2020 15:17
Report Date: 11.23.2020 16:23
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	678523-007		678523-008					
	Field Id:	PH04A		FS01A					
	Depth:	3- ft		2- ft					
	Matrix:	SOIL		SOIL					
	Sampled:	11.17.2020 10:30		11.17.2020 10:00					
Chloride by EPA 300	***Extracted:***	11.20.2020 15:00		11.20.2020 15:00					
	Analyzed:	11.20.2020 22:34		11.20.2020 22:39					
	Units/RL:	mg/kg	RL	mg/kg	RL				
Chloride		1160	49.8	3260	49.9				

BRL - Below Reporting Limit

Jessica Kramer

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Analytical Report 678523

for

WSP USA

Project Manager: Dan Moir

PLU 423

TE012920139

11.23.2020

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

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11.23.2020

Project Manager: **Dan Moir**
WSP USA
2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **678523**
PLU 423
Project Address:

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) 678523. 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. 678523 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,

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

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Sample Cross Reference 678523

WSP USA, Dallas, TX

PLU 423

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW02B	S	11.17.2020 12:20	2 ft	678523-001
SW02C	S	11.17.2020 12:30	4 ft	678523-002
SW03	S	11.17.2020 10:15	0 - 2 ft	678523-003
PH01A	S	11.17.2020 12:10	3 ft	678523-004
PH02A	S	11.17.2020 11:00	3 ft	678523-005
PH03A	S	11.17.2020 10:45	3 ft	678523-006
PH04A	S	11.17.2020 10:30	3 ft	678523-007
FS01A	S	11.17.2020 10:00	2 ft	678523-008

CASE NARRATIVE

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Client Name: WSP USA

Project Name: PLU 423

Project ID: *TE012920139*
Work Order Number(s): *678523*

Report Date: *11.23.2020*
Date Received: *11.19.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02B**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-001	Date Collected:	11.17.2020 12:20	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**358**	9.96	mg/kg	11.20.2020 21:42		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 12:00	% Moisture:	
Seq Number:	3142934			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**3960**	249	mg/kg	11.21.2020 04:14		5
Diesel Range Organics (DRO)	C10C28DRO	**18400**	249	mg/kg	11.21.2020 04:14		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1650**	249	mg/kg	11.21.2020 04:14		5
Total GRO-DRO	PHC628	**22360**	249.0	mg/kg	11.21.2020 04:14		5
Total TPH	PHC635	**24010**	249.0	mg/kg	11.21.2020 04:14		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	11.21.2020 04:14	
o-Terphenyl	84-15-1	115	%	70-135	11.21.2020 04:14	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02B**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-001	Date Collected:	11.17.2020 12:20	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 14:51	% Moisture:	
Seq Number:	3142932			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**1.25**	0.200	mg/kg	11.20.2020 23:59		100
Toluene	108-88-3	**18.7**	0.200	mg/kg	11.20.2020 23:59		100
Ethylbenzene	100-41-4	**8.10**	0.200	mg/kg	11.20.2020 23:59		100
m,p-Xylenes	179601-23-1	**41.5**	0.401	mg/kg	11.20.2020 23:59		100
o-Xylene	95-47-6	**20.4**	0.200	mg/kg	11.20.2020 23:59		100
Total Xylenes	1330-20-7	**61.90**	0.2000	mg/kg	11.20.2020 23:59		100
Total BTEX		**89.95**	0.2000	mg/kg	11.20.2020 23:59		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	11.20.2020 23:59	
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.20.2020 23:59	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02C**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-002	Date Collected:	11.17.2020 12:30	Sample Depth:	4 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**334**	10.0	mg/kg	11.20.2020 21:57		1

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 12:00	% Moisture:	
Seq Number:	3142934			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**3260**	251	mg/kg	11.21.2020 04:34		5
Diesel Range Organics (DRO)	C10C28DRO	**13900**	251	mg/kg	11.21.2020 04:34		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**1250**	251	mg/kg	11.21.2020 04:34		5
Total GRO-DRO	PHC628	**17160**	251.0	mg/kg	11.21.2020 04:34		5
Total TPH	PHC635	**18410**	251.0	mg/kg	11.21.2020 04:34		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	11.21.2020 04:34	
o-Terphenyl	84-15-1	115	%	70-135	11.21.2020 04:34	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW02C**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-002	Date Collected:	11.17.2020 12:30	Sample Depth:	4 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 14:51	% Moisture:	
Seq Number:	3142932			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0500	0.0500	mg/kg	11.21.2020 00:22	U	100
Toluene	108-88-3	**11.3**	0.200	mg/kg	11.21.2020 00:22		100
Ethylbenzene	100-41-4	**10.6**	0.200	mg/kg	11.21.2020 00:22		100
m,p-Xylenes	179601-23-1	**34.9**	0.400	mg/kg	11.21.2020 00:22		100
o-Xylene	95-47-6	**15.7**	0.200	mg/kg	11.21.2020 00:22		100
Total Xylenes	1330-20-7	**50.60**	0.2000	mg/kg	11.21.2020 00:22		100
Total BTEX		**72.50**	0.05000	mg/kg	11.21.2020 00:22		100

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	123	%	70-130	11.21.2020 00:22	
1,4-Difluorobenzene	540-36-3	93	%	70-130	11.21.2020 00:22	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-003	Date Collected:	11.17.2020 10:15	Sample Depth:	0 - 2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3440**	50.4	mg/kg	11.20.2020 22:03		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 12:00	% Moisture:	
Seq Number:	3142934			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.21.2020 04:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.21.2020 04:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.21.2020 04:54	U	1
Total GRO-DRO	PHC628	<50.10	50.10	mg/kg	11.21.2020 04:54	U	1
Total TPH	PHC635	<50.10	50.10	mg/kg	11.21.2020 04:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	11.21.2020 04:54	
o-Terphenyl	84-15-1	106	%	70-135	11.21.2020 04:54	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**SW03**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-003	Date Collected:	11.17.2020 10:15	Sample Depth:	0 - 2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.21.2020 17:04	% Moisture:	
Seq Number:	3142998			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.22.2020 11:00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.22.2020 11:00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.22.2020 11:00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.22.2020 11:00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.22.2020 11:00	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.22.2020 11:00	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.22.2020 11:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.22.2020 11:00	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.22.2020 11:00	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-004	Date Collected:	11.17.2020 12:10	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1980**	50.1	mg/kg	11.20.2020 22:18		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 12:00	% Moisture:	
Seq Number:	3142934			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.21.2020 05:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.21.2020 05:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.21.2020 05:14	U	1
Total GRO-DRO	PHC628	<49.80	49.80	mg/kg	11.21.2020 05:14	U	1
Total TPH	PHC635	<49.80	49.80	mg/kg	11.21.2020 05:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.21.2020 05:14	
o-Terphenyl	84-15-1	116	%	70-135	11.21.2020 05:14	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH01A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-004	Date Collected:	11.17.2020 12:10	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.21.2020 17:04	% Moisture:	
Seq Number:	3142998			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.22.2020 11:22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.22.2020 11:22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.22.2020 11:22	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.22.2020 11:22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.22.2020 11:22	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.22.2020 11:22	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.22.2020 11:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.22.2020 11:22	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.22.2020 11:22	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-005	Date Collected:	11.17.2020 11:00	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4010**	49.6	mg/kg	11.20.2020 22:23		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 18:00	% Moisture:	
Seq Number:	3142992			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.20.2020 23:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	**85.7**	49.9	mg/kg	11.20.2020 23:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.20.2020 23:11	U	1
Total GRO-DRO	PHC628	**85.70**	49.90	mg/kg	11.20.2020 23:11		1
Total TPH	PHC635	**85.70**	49.90	mg/kg	11.20.2020 23:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	11.20.2020 23:11	
o-Terphenyl	84-15-1	102	%	70-135	11.20.2020 23:11	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH02A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-005	Date Collected:	11.17.2020 11:00	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.21.2020 17:04	% Moisture:	
Seq Number:	3142998			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.22.2020 11:44	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.22.2020 11:44	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.22.2020 11:44	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.22.2020 11:44	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.22.2020 11:44	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	11.22.2020 11:44	U	1
Total BTEX		<0.002020	0.002020	mg/kg	11.22.2020 11:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.22.2020 11:44	
4-Bromofluorobenzene	460-00-4	122	%	70-130	11.22.2020 11:44	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-006	Date Collected:	11.17.2020 10:45	Sample Depth:	3 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB

Analyst: MAB — Date Prep: 11.20.2020 15:00 — % Moisture: Basis: Wet Weight

Seq Number: 3142939

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**129**	9.98	mg/kg	11.20.2020 22:29		1

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB

Analyst: CAC — Date Prep: 11.20.2020 18:00 — % Moisture: Basis: Wet Weight

Seq Number: 3142992

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.20.2020 23:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.20.2020 23:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.20.2020 23:31	U	1
Total GRO-DRO	PHC628	<50.20	50.20	mg/kg	11.20.2020 23:31	U	1
Total TPH	PHC635	<50.20	50.20	mg/kg	11.20.2020 23:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	11.20.2020 23:31	
o-Terphenyl	84-15-1	110	%	70-135	11.20.2020 23:31	

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Certificate of Analytical Results 678523

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH03A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-006	Date Collected:	11.17.2020 10:45	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.21.2020 17:04	% Moisture:	
Seq Number:	3142998			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.22.2020 12:07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.22.2020 12:07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.22.2020 12:07	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.22.2020 12:07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.22.2020 12:07	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	11.22.2020 12:07	U	1
Total BTEX		<0.002020	0.002020	mg/kg	11.22.2020 12:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	11.22.2020 12:07	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.22.2020 12:07	

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PLU 423

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-007	Date Collected:	11.17.2020 10:30	Sample Depth:	3 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1160**	49.8	mg/kg	11.20.2020 22:34		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 18:00	% Moisture:	
Seq Number:	3142992			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.20.2020 23:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.20.2020 23:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.20.2020 23:52	U	1
Total GRO-DRO	PHC628	<50.10	50.10	mg/kg	11.20.2020 23:52	U	1
Total TPH	PHC635	<50.10	50.10	mg/kg	11.20.2020 23:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	108	%	70-135	11.20.2020 23:52	
o-Terphenyl	84-15-1	122	%	70-135	11.20.2020 23:52	

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PLU 423

Sample Id:	**PH04A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-007	Date Collected:	11.17.2020 10:30	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.21.2020 17:04	% Moisture:	
Seq Number:	3142998			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.22.2020 12:29	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.22.2020 12:29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.22.2020 12:29	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.22.2020 12:29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.22.2020 12:29	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.22.2020 12:29	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.22.2020 12:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.22.2020 12:29	
4-Bromofluorobenzene	460-00-4	125	%	70-130	11.22.2020 12:29	

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PLU 423

Sample Id:	**FS01A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-008	Date Collected:	11.17.2020 10:00	Sample Depth:	2 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.20.2020 15:00	% Moisture:	
Seq Number:	3142939			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**3260**	49.9	mg/kg	11.20.2020 22:39		5

Analytical Method:	TPH by SW8015 Mod			Prep Method:	SW8015P
Tech:	MAB				
Analyst:	CAC	Date Prep:	11.20.2020 18:00	% Moisture:	
Seq Number:	3142992			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.21.2020 00:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	**269**	50.1	mg/kg	11.21.2020 00:11		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.21.2020 00:11	U	1
Total GRO-DRO	PHC628	**269.0**	50.10	mg/kg	11.21.2020 00:11		1
Total TPH	PHC635	**269.0**	50.10	mg/kg	11.21.2020 00:11		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.21.2020 00:11	
o-Terphenyl	84-15-1	108	%	70-135	11.21.2020 00:11	

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PLU 423

Sample Id:	**FS01A**	Matrix:	Soil	Date Received:	11.19.2020 15:17
Lab Sample Id:	678523-008	Date Collected:	11.17.2020 10:00	Sample Depth:	2 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.21.2020 17:04	% Moisture:	
Seq Number:	3142998			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.22.2020 13:49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.22.2020 13:49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.22.2020 13:49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.22.2020 13:49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.22.2020 13:49	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.22.2020 13:49	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.22.2020 13:49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.22.2020 13:49	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.22.2020 13:49	

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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

QC Summary 678523

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PLU 423

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715681-1-BLK — LCS Sample Id: 7715681-1-BKS — LCSD Sample Id: 7715681-1-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	253	101	253	101	90-110	0	20	mg/kg	11.20.2020 20:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Soil — Date Prep: 11.20.2020
Parent Sample Id: 678519-001 — MS Sample Id: 678519-001 S — MSD Sample Id: 678519-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	13.3	199	217	102	219	103	90-110	1	20	mg/kg	11.20.2020 20:35	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3142939 — Matrix: Soil — Date Prep: 11.20.2020
Parent Sample Id: 678523-001 — MS Sample Id: 678523-001 S — MSD Sample Id: 678523-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	358	200	567	105	565	104	90-110	0	20	mg/kg	11.20.2020 21:47	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142934 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715677-1-BLK — LCS Sample Id: 7715677-1-BKS — LCSD Sample Id: 7715677-1-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	1210	121	1170	117	70-135	3	35	mg/kg	11.20.2020 21:11	
Diesel Range Organics (DRO)	<50.0	1000	1110	111	1050	105	70-135	6	35	mg/kg	11.20.2020 21:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	110		112		116		70-135	%	11.20.2020 21:11
o-Terphenyl	118		102		111		70-135	%	11.20.2020 21:11

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3142992 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715675-1-BLK — LCS Sample Id: 7715675-1-BKS — LCSD Sample Id: 7715675-1-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	1120	112	1030	103	70-135	8	35	mg/kg	11.20.2020 21:11	
Diesel Range Organics (DRO)	<50.0	1000	1190	119	1170	117	70-135	2	35	mg/kg	11.20.2020 21:11	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		107		116		70-135	%	11.20.2020 21:11
o-Terphenyl	117		124		116		70-135	%	11.20.2020 21:11

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

QC Summary 678523

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PLU 423

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142934 Matrix: Solid Date Prep: 11.20.2020
MB Sample Id: 7715677-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2020 20:51	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142992 Matrix: Solid Date Prep: 11.20.2020
MB Sample Id: 7715675-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2020 20:51	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142934 Matrix: Soil Date Prep: 11.20.2020
Parent Sample Id: 678527-006 MS Sample Id: 678527-006 S MSD Sample Id: 678527-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1150	115	1110	111	70-135	4	35	mg/kg	11.20.2020 22:11	
Diesel Range Organics (DRO)	<50.0	1000	1100	110	995	100	70-135	10	35	mg/kg	11.20.2020 22:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		107		70-135	%	11.20.2020 22:11
o-Terphenyl	98		112		70-135	%	11.20.2020 22:11

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3142992 Matrix: Soil Date Prep: 11.20.2020
Parent Sample Id: 678616-015 MS Sample Id: 678616-015 S MSD Sample Id: 678616-015 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	1150	115	1210	121	70-135	5	35	mg/kg	11.20.2020 22:11	
Diesel Range Organics (DRO)	<50.2	1000	1040	104	1130	113	70-135	8	35	mg/kg	11.20.2020 22:11	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		114		70-135	%	11.20.2020 22:11
o-Terphenyl	114		98		70-135	%	11.20.2020 22:11

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

QC Summary 678523

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Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3142932 — Matrix: Solid — Date Prep: 11.20.2020
MB Sample Id: 7715670-1-BLK — LCS Sample Id: 7715670-1-BKS — LCSD Sample Id: 7715670-1-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	0.104	104	0.105	105	70-130	1	35	mg/kg	11.20.2020 12:29	
Toluene	<0.00200	0.100	0.0999	100	0.0988	99	70-130	1	35	mg/kg	11.20.2020 12:29	
Ethylbenzene	<0.00200	0.100	0.101	101	0.105	105	71-129	4	35	mg/kg	11.20.2020 12:29	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.214	107	70-135	3	35	mg/kg	11.20.2020 12:29	
o-Xylene	<0.00200	0.100	0.103	103	0.105	105	71-133	2	35	mg/kg	11.20.2020 12:29	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		104		70-130	%	11.20.2020 12:29
4-Bromofluorobenzene	116		107		112		70-130	%	11.20.2020 12:29

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3142998 — Matrix: Solid — Date Prep: 11.21.2020
MB Sample Id: 7715709-1-BLK — LCS Sample Id: 7715709-1-BKS — LCSD Sample Id: 7715709-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0974	97	0.0977	98	70-130	0	35	mg/kg	11.22.2020 07:03	
Toluene	<0.00200	0.100	0.0908	91	0.0909	91	70-130	0	35	mg/kg	11.22.2020 07:03	
Ethylbenzene	<0.00200	0.100	0.0943	94	0.0937	94	71-129	1	35	mg/kg	11.22.2020 07:03	
m,p-Xylenes	<0.00400	0.200	0.193	97	0.192	96	70-135	1	35	mg/kg	11.22.2020 07:03	
o-Xylene	<0.00200	0.100	0.0960	96	0.0963	96	71-133	0	35	mg/kg	11.22.2020 07:03	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		97		100		70-130	%	11.22.2020 07:03
4-Bromofluorobenzene	115		108		109		70-130	%	11.22.2020 07:03

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3142932 — Matrix: Soil — Date Prep: 11.20.2020
Parent Sample Id: 678519-001 — MS Sample Id: 678519-001 S — MSD Sample Id: 678519-001 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	0.100	0.0950	95	0.104	105	70-130	9	35	mg/kg	11.20.2020 13:14	
Toluene	<0.00200	0.100	0.0871	87	0.0969	97	70-130	11	35	mg/kg	11.20.2020 13:14	
Ethylbenzene	<0.00200	0.100	0.0824	82	0.0971	98	71-129	16	35	mg/kg	11.20.2020 13:14	
m,p-Xylenes	<0.00401	0.200	0.169	85	0.197	99	70-135	15	35	mg/kg	11.20.2020 13:14	
o-Xylene	<0.00200	0.100	0.0840	84	0.0956	96	71-133	13	35	mg/kg	11.20.2020 13:14	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		98		70-130	%	11.20.2020 13:14
4-Bromofluorobenzene	108		106		70-130	%	11.20.2020 13:14

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

Final 1.000

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QC Summary 678523

WSP USA

PLU 423

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3142998 Matrix: Soil Date Prep: 11.21.2020

Parent Sample Id: 678647-004 MS Sample Id: 678647-004 S MSD Sample Id: 678647-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0841	84	0.0828	83	70-130	2	35	mg/kg	11.22.2020 07:48	
Toluene	<0.00200	0.100	0.0786	79	0.0768	77	70-130	2	35	mg/kg	11.22.2020 07:48	
Ethylbenzene	<0.00200	0.100	0.0813	81	0.0766	77	71-129	6	35	mg/kg	11.22.2020 07:48	
m,p-Xylenes	<0.00401	0.200	0.163	82	0.159	79	70-135	2	35	mg/kg	11.22.2020 07:48	
o-Xylene	<0.00200	0.100	0.0823	82	0.0809	81	71-133	2	35	mg/kg	11.22.2020 07:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		97		70-130	%	11.22.2020 07:48
4-Bromofluorobenzene	106		104		70-130	%	11.22.2020 07:48

MS/MSD Percent Recovery [D] = 100*(C-A) / B

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

LCS/LCSD Recovery [D] = 100 * (C) / [B]

Log Difference 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)
www.xenco.com

Work Order No: 678523

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 423	Turn Around	
Project Number:	TE012920139	Routine	✓
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	20.6/2.2	Temp Blank:	(Yes) No
Received Intact:	(Yes) No	Wet Ice:	(Yes) No
Cooler Custody Seals:	Yes No (N/A)	Thermometer ID	T-NM-007
Sample Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
		Total Containers:	8

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SW02B	S	11/17/2020	1220	2'	1	X	X	X
SW02C	S	11/17/2020	1230	4'	1	X	X	X
SW03	S	11/17/2020	1015	0-2'	1	X	X	X
PH01A	S	11/17/2020	1210	3'	1	X	X	X
PH02A	S	11/17/2020	1100	3'	1	X	X	X
PH03A	S	11/17/2020	1045	3'	1	X	X	X
PH04A	S	11/17/2020	1030	3'	1	X	X	X
FS01A	S	11/17/2020	1000	2'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Clee Cole	11.19.20 1517	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 11.19.2020 03.17.00 PM

Work Order #: 678523

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	
#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**	Samples received in bulk containers.
#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**	

*** 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: 11.19.2020

Checklist reviewed by: Jessica Kramer Date: 11.23.2020

Jessica Kramer

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Certificate of Analysis Summary 679040

WSP USA, Dallas, TX

Project Name: PLU 423

Project Id: TE012920139
Contact: Dan Moir
Project Location:

Date Received in Lab: Wed 11.25.2020 08:53
Report Date: 12.01.2020 13:17
Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	679040-001		679040-002		679040-003					
	Field Id:	PH05		PH05 A		PH05 B					
	Depth:	1- ft		3- ft		7- ft					
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	11.17.2020 13:00		11.17.2020 13:10		11.17.2020 13:20					
BTEX by EPA 8021B	***Extracted:***	11.25.2020 11:00		11.25.2020 11:00		11.25.2020 11:00					
	Analyzed:	11.25.2020 17:37		11.25.2020 18:00		11.25.2020 18:22					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
Toluene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00398	0.00398	<0.00401	0.00401	<0.00401	0.00401				
o-Xylene		<0.00199	0.00199	<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000				
Total BTEX		<0.001990	0.001990	<0.002000	0.002000	<0.002000	0.002000				
Chloride by EPA 300	***Extracted:***	11.25.2020 14:00		11.25.2020 14:00		11.25.2020 14:00					
	Analyzed:	11.25.2020 18:42		11.25.2020 18:57		11.25.2020 19:13					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		211	9.98	211	10.0	204	9.96				
TPH by SW8015 Mod	***Extracted:***	11.25.2020 12:00		11.25.2020 12:00		11.30.2020 17:00					
	Analyzed:	11.25.2020 21:55		11.25.2020 22:15		12.01.2020 03:08					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9				
Diesel Range Organics (DRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.9	49.9	<49.9	49.9				
Total GRO-DRO		<49.90	49.90	<49.90	49.90	<49.90	49.90				
Total TPH		<49.90	49.90	<49.90	49.90	<49.90	49.90				

BRL - Below Reporting Limit

Jessica Kramer

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

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Analytical Report 679040

for

WSP USA

Project Manager: Dan Moir

PLU 423

TE012920139

12.01.2020

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

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12.01.2020

Project Manager: **Dan Moir**
WSP USA
2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **679040**
PLU 423
Project Address:

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) 679040. 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. 679040 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,

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

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Sample Cross Reference 679040

WSP USA, Dallas, TX

PLU 423

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
PH05	S	11.17.2020 13:00	1 ft	679040-001
PH05 A	S	11.17.2020 13:10	3 ft	679040-002
PH05 B	S	11.17.2020 13:20	7 ft	679040-003

CASE NARRATIVE

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Client Name: WSP USA

Project Name: PLU 423

Project ID: *TE012920139*
Work Order Number(s): *679040*

Report Date: *12.01.2020*
Date Received: *11.25.2020*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Certificate of Analytical Results 679040

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	11.25.2020 08:53
Lab Sample Id:	679040-001	Date Collected:	11.17.2020 13:00	Sample Depth:	1 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB
Analyst: MAB
Seq Number: 3143434

Date Prep: 11.25.2020 14:00

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**211**	9.98	mg/kg	11.25.2020 18:42		1

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB
Analyst: CAC
Seq Number: 3143427

Date Prep: 11.25.2020 12:00

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.2020 21:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.2020 21:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.2020 21:55	U	1
Total GRO-DRO	PHC628	<49.90	49.90	mg/kg	11.25.2020 21:55	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	11.25.2020 21:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	11.25.2020 21:55	
o-Terphenyl	84-15-1	98	%	70-135	11.25.2020 21:55	

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Certificate of Analytical Results 679040

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH05**	Matrix:	Soil	Date Received:	11.25.2020 08:53
Lab Sample Id:	679040-001	Date Collected:	11.17.2020 13:00	Sample Depth:	1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143417			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.25.2020 17:37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.25.2020 17:37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.25.2020 17:37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.25.2020 17:37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.25.2020 17:37	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.25.2020 17:37	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.25.2020 17:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	70-130	11.25.2020 17:37	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.25.2020 17:37	

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Certificate of Analytical Results 679040

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH05 A**	Matrix:	Soil	Date Received:	11.25.2020 08:53
Lab Sample Id:	679040-002	Date Collected:	11.17.2020 13:10	Sample Depth:	3 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB
Analyst: MAB
Seq Number: 3143434

Date Prep: 11.25.2020 14:00

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**211**	10.0	mg/kg	11.25.2020 18:57		1

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB
Analyst: CAC
Seq Number: 3143427

Date Prep: 11.25.2020 12:00

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.25.2020 22:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.25.2020 22:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.25.2020 22:15	U	1
Total GRO-DRO	PHC628	<49.90	49.90	mg/kg	11.25.2020 22:15	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	11.25.2020 22:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	11.25.2020 22:15	
o-Terphenyl	84-15-1	112	%	70-135	11.25.2020 22:15	

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Certificate of Analytical Results 679040

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH05 A**	Matrix:	Soil	Date Received:	11.25.2020 08:53
Lab Sample Id:	679040-002	Date Collected:	11.17.2020 13:10	Sample Depth:	3 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143417			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.2020 18:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.2020 18:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.2020 18:00	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.25.2020 18:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.2020 18:00	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.25.2020 18:00	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.25.2020 18:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.25.2020 18:00	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.25.2020 18:00	

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Certificate of Analytical Results 679040

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH05 B**	Matrix:	Soil	Date Received:	11.25.2020 08:53
Lab Sample Id:	679040-003	Date Collected:	11.17.2020 13:20	Sample Depth:	7 ft

Analytical Method: Chloride by EPA 300 — Prep Method: E300P

Tech: MAB

Analyst: MAB — Date Prep: 11.25.2020 14:00 — % Moisture:

Seq Number: 3143434 — Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**204**	9.96	mg/kg	11.25.2020 19:13		1

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P

Tech: MAB

Analyst: CAC — Date Prep: 11.30.2020 17:00 — % Moisture:

Seq Number: 3143563 — Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.01.2020 03:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.01.2020 03:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.01.2020 03:08	U	1
Total GRO-DRO	PHC628	<49.90	49.90	mg/kg	12.01.2020 03:08	U	1
Total TPH	PHC635	<49.90	49.90	mg/kg	12.01.2020 03:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	12.01.2020 03:08	
o-Terphenyl	84-15-1	102	%	70-135	12.01.2020 03:08	

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Certificate of Analytical Results 679040

WSP USA, Dallas, TX

PLU 423

Sample Id:	**PH05 B**	Matrix:	Soil	Date Received:	11.25.2020 08:53
Lab Sample Id:	679040-003	Date Collected:	11.17.2020 13:20	Sample Depth:	7 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	11.25.2020 11:00	% Moisture:	
Seq Number:	3143417			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.25.2020 18:22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.25.2020 18:22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.25.2020 18:22	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.25.2020 18:22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.25.2020 18:22	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.25.2020 18:22	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.25.2020 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	70-130	11.25.2020 18:22	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.25.2020 18:22	

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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

QC Summary 679040

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PLU 423

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143434 — Matrix: Solid — Date Prep: 11.25.2020
MB Sample Id: 7715983-1-BLK — LCS Sample Id: 7715983-1-BKS — LCSD Sample Id: 7715983-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.00	250.0	242.3	97	240.3	96	90-110	1	20	mg/kg	11.25.2020 17:19	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143434 — Matrix: Soil — Date Prep: 11.25.2020
Parent Sample Id: 679038-029 — MS Sample Id: 679038-029 S — MSD Sample Id: 679038-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.83	199.0	217.5	99	216.0	98	90-110	1	20	mg/kg	11.25.2020 17:34	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3143434 — Matrix: Soil — Date Prep: 11.25.2020
Parent Sample Id: 679040-001 — MS Sample Id: 679040-001 S — MSD Sample Id: 679040-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	211.4	200.0	395.3	92	397.1	93	90-110	0	20	mg/kg	11.25.2020 18:47	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143427 — Matrix: Solid — Date Prep: 11.25.2020
MB Sample Id: 7715984-1-BLK — LCS Sample Id: 7715984-1-BKS — LCSD Sample Id: 7715984-1-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	1200	120	1140	114	70-135	5	35	mg/kg	11.25.2020 14:12	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	1070	107	70-135	4	35	mg/kg	11.25.2020 14:12	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		111		104		70-135	%	11.25.2020 14:12
o-Terphenyl	113		119		115		70-135	%	11.25.2020 14:12

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143563 — Matrix: Solid — Date Prep: 11.30.2020
MB Sample Id: 7716127-1-BLK — LCS Sample Id: 7716127-1-BKS — LCSD Sample Id: 7716127-1-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	1050	105	1010	101	70-135	4	35	mg/kg	12.01.2020 02:28	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1200	120	70-135	4	35	mg/kg	12.01.2020 02:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		113		128		70-135	%	12.01.2020 02:28
o-Terphenyl	110		122		120		70-135	%	12.01.2020 02:28

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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

QC Summary 679040

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PLU 423

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143427 — Matrix: Solid — Date Prep: 11.25.2020
MB Sample Id: 7715984-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.25.2020 13:52	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143563 — Matrix: Solid — Date Prep: 11.30.2020
MB Sample Id: 7716127-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.01.2020 02:08	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143427 — Matrix: Soil — Date Prep: 11.25.2020
Parent Sample Id: 679038-021 — MS Sample Id: 679038-021 S — MSD Sample Id: 679038-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	1210	121	1140	114	70-135	6	35	mg/kg	11.25.2020 15:12	
Diesel Range Organics (DRO)	<49.9	998	1150	115	1080	108	70-135	6	35	mg/kg	11.25.2020 15:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	114		109		70-135	%	11.25.2020 15:12
o-Terphenyl	101		106		70-135	%	11.25.2020 15:12

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3143563 — Matrix: Soil — Date Prep: 11.30.2020
Parent Sample Id: 679040-003 — MS Sample Id: 679040-003 S — MSD Sample Id: 679040-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1110	111	1070	106	70-135	4	35	mg/kg	12.01.2020 03:29	
Diesel Range Organics (DRO)	<49.9	997	1080	108	991	98	70-135	9	35	mg/kg	12.01.2020 03:29	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		103		70-135	%	12.01.2020 03:29
o-Terphenyl	100		108		70-135	%	12.01.2020 03:29

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

QC Summary 679040

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PLU 423

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3143417 Matrix: Solid Date Prep: 11.25.2020
MB Sample Id: 7715943-1-BLK LCS Sample Id: 7715943-1-BKS LCSD Sample Id: 7715943-1-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	0.117	117	0.108	108	70-130	8	35	mg/kg	11.25.2020 09:49	
Toluene	<0.00200	0.100	0.112	112	0.103	103	70-130	8	35	mg/kg	11.25.2020 09:49	
Ethylbenzene	<0.00200	0.100	0.104	104	0.0965	97	71-129	7	35	mg/kg	11.25.2020 09:49	
m,p-Xylenes	<0.00400	0.200	0.212	106	0.197	99	70-135	7	35	mg/kg	11.25.2020 09:49	
o-Xylene	<0.00200	0.100	0.104	104	0.0963	96	71-133	8	35	mg/kg	11.25.2020 09:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		99		98		70-130	%	11.25.2020 09:49
4-Bromofluorobenzene	86		88		85		70-130	%	11.25.2020 09:49

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3143417 Matrix: Soil Date Prep: 11.25.2020
Parent Sample Id: 678867-001 MS Sample Id: 678867-001 S MSD Sample Id: 678867-001 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	0.100	0.120	120	0.0996	100	70-130	19	35	mg/kg	11.25.2020 10:33	
Toluene	<0.00200	0.100	0.115	115	0.0963	96	70-130	18	35	mg/kg	11.25.2020 10:33	
Ethylbenzene	<0.00200	0.100	0.105	105	0.0868	87	71-129	19	35	mg/kg	11.25.2020 10:33	
m,p-Xylenes	<0.00401	0.200	0.215	108	0.176	88	70-135	20	35	mg/kg	11.25.2020 10:33	
o-Xylene	<0.00200	0.100	0.105	105	0.0890	89	71-133	16	35	mg/kg	11.25.2020 10:33	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		97		70-130	%	11.25.2020 10:33
4-Bromofluorobenzene	90		92		70-130	%	11.25.2020 10:33

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference 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)
www.xenco.com

Work Order No: 679040

Page 1 of 1

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Spencer.Lo@wsp.com,Aimee.Cole@wsp.com,Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU 423	Turn Around	
Project Number:	TE012920139	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Spencer Lo	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.2/1.0	Thermometer ID	~~SECO~~ T-NM-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	3	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH05	S	11/17/2020	1300	1'	1	X	X	X
PH05A	S	11/17/2020	1310	3'	1	X	X	X
PH05B	S	11/17/2020	1320	7'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl 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 Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

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

Revised Date 051418 Rev. 2018.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 11.25.2020 08.53.00 AM

Work Order #: 679040

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	
#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**	Samples received in bulk containers.
#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**	

*** 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: 11.25.2020

Checklist reviewed by: Jessica Kramer Date: 11.25.2020

Jessica Kramer

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 11746

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	11746	C-141

OCD Reviewer	Condition
chensley	The C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.