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	NAPP2036551506
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 32.10277 Longitude -103.77674
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 28 BS 707H	Site Type Well Pad
Date Release Discovered 12-17-20	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
H	28	25S	31E	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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 125	Volume Recovered (bbls) 120
	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: During frac operations, CP Energy Services was rigging down a tank when 125 bbls recycled water was released due to a faulty valve. A vacuum truck was dispatched and recovered all fluids in containment. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2036551506
District RP	
Facility ID	
Application ID	

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? A release greater than or equal to 25 barrels.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, by Adrian Baker to Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>; BLM_NM_CFO_Spill@blm.gov; Morgan, Crisha A <camorgan@blm.gov>; emily.hernandez@state.nm.us on Friday, December 18, 2020 9:18 AM via email

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:

NA

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: [signature]
Date: 12-29-20
email: Kyle_Littrell@xtoenergy.com
Telephone: 432-221-7331

OCD Only

Received by: Ramona Marcus
Date: 4/30/2021

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 23587

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	23587	C-141

OCD Reviewer	Condition
rmarcus	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141

Incident ID	NAPP2036551506
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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2036551506
District RP	
Facility ID	
Application ID	

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

Printed Name: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 07/07/2021

email: Adrian.Baker@exxonmobil.com Telephone: (432)-236-3808

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2036551506
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Adrian Baker Title: Environmental Coordinator

Signature: Adrian Baker Date: 07/07/2021

email: Adrian.Baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Chad Hensley Date: 9/01/2021

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

Closure Approved by: Chad Hensley Date: 9/01/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

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

July 8, 2021

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

RE: Closure Request
PLU 28 BS 707H
Incident Number nAPP2036551506
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Poker Lake Unit (PLU) 28 BS 707H (Site) in Unit H, Section 28, Township 25 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water at the Site. Based on field observations, field screening activities, and soil sample analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number nAPP2036551506.

RELEASE BACKGROUND

On December 17, 2020, during frac operations, a faulty tank valve resulted in the release of approximately 125 barrels (bbls) of produced water into the temporary frac tank containment and onto the caliche well pad. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately 120 bbls of produced water were recovered from within the containment. No release fluids escaped the well pad. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on December 29, 2020. The release was assigned Incident Number nAPP2036551506.

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 greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During April 2021, WSP installed a soil boring (C-04500) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-04500 was drilled to a depth of 110 feet bgs. A WSP

geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The Well Record and Log is included in Attachment 1. The location of the borehole is approximately 0.49 miles west of the release extent and is depicted on Figure 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 100 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 1.3 miles southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT AND ANALYTICAL RESULTS

On January 25, 2021 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 four preliminary assessment soil samples (SS01 through SS04) within the release extent from a depth of approximately 0.5 feet bgs to assess for the presence or absence of soil impacts at the ground surface. The preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil

samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS04 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. To further evaluate for the presence or absence of impacted soil, additional lateral and vertical assessment activities were scheduled.

DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Further delineation and remediation efforts were postponed due to ongoing frac operations on pad near the release, resulting in activity restrictions at the Site due to safety concerns. Per 19.15.29.12.B.(1) NMAC, two extensions for submission of a remediation plan or closure report were requested to the NMOCD. The initial extension was requested on March 17, 2021, and the final extension was requested June 4, 2021, extending the deadline to September 13, 2021.

On June 3, 2021, once flowback operations were complete, WSP personnel returned to the Site to oversee additional soil assessment activities. Seven potholes (PH01 through PH07) were advanced using a track-mounted backhoe to a depth of approximately 3 feet bgs within the release extent. Potholes PH01, PH04, PH06, and PH07 were advanced at the SS01 through SS04 preliminary soil sample locations. Delineation soil samples were collected from the potholes from depths of 1-foot and 3 feet bgs. Soil from the potholes were field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for each pothole were logged on a lithologic/soil sampling log, which are included in Attachment 2. The pothole and delineation soil sample locations are presented on Figure 3. The delineation soil samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico. All potholes were backfilled with soil removed. Photographic documentation was conducted during the site visits. Photographs are included in Attachment 3.

Laboratory analytical results for delineation soil samples PH01 through PH07 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Given the proximity of pasture north of the pad where the release occurred, WSP collected three surface samples (SS05-SS07) from a depth of 0.5 feet bgs to confirm the lateral extent of the release. Laboratory analytical results for surface samples SS05 through SS07 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. The surface soil

sample locations are presented on Figure 3. The surface samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Preliminary soil samples SS01 through SS04, delineation soil samples PH01 through PH07, and surface samples SS05 through SS07 were collected from within and around the release extent from depths ranging from 0.5 feet to 3 feet bgs to assess for the presence or absence of soil impacts as a result of the December 17, 2020, produced water release. Laboratory analytical results for the preliminary and delineation soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, the release was delineated to below the most stringent Table 1 Closure Criteria.

Based on initial response efforts, soil sample laboratory analytical results compliant with the Closure Criteria, and confirmed depth to groundwater greater than 100 feet bgs, no impacted soil was identified, and no excavation was required as a result of the produced water release. XTO respectfully requests NFA for Incident Number nAPP2036551506.

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

Sincerely,

WSP USA Inc.

Kalei Jennings
Associate Consultant

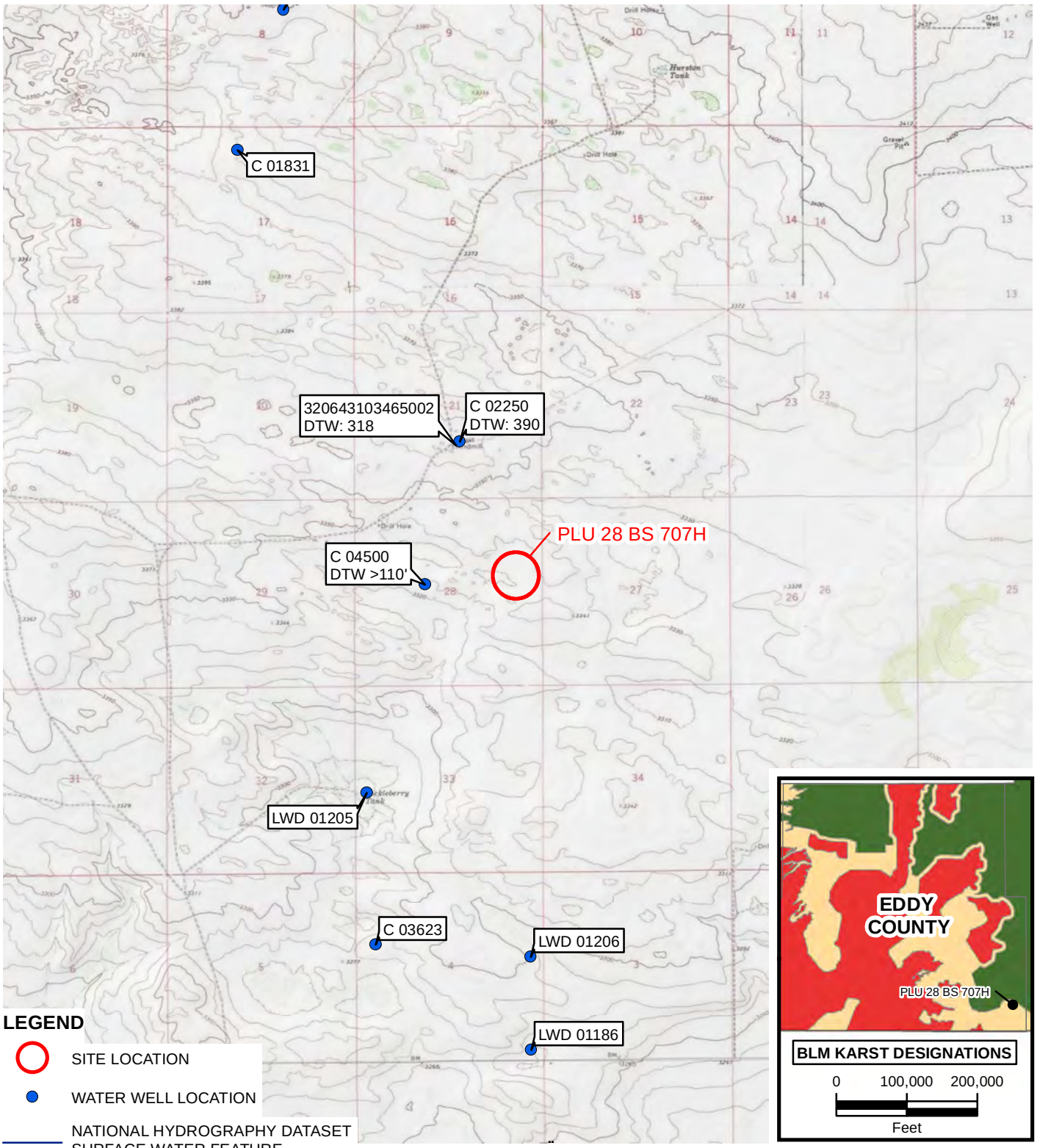
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Adrian Baker, XTO
Bureau of Land Management

Attachments:

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

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

DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBER nAPP2036551506

FIGURE 1
SITE LOCATION MAP
PLU 28 BS 707H
UNIT H SEC 28 T25S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\012921011_PLU 28 BS 707H\012921011_FIG01_SL_RECEPTOR_2021_1.mxd

LEGEND

- RELEASE LOCATION
- PRELIMINARY SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT

IMAGE COURTESY OF ESRI

0 40 80
Feet

N

NOTE: INCIDENT NUMBER nAPP2036551506
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU 28 BS 707H
UNIT H SEC 28 T25S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921011_PLU 28 BS 707H\012921011_FIG02_PRELIMINARY_2021.mxd

LEGEND

- RELEASE LOCATION
- SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT

NOTE: INCIDENT NUMBER nAPP2036551506
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI

0 40 80
Feet

N

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
PLU 28 BS 707H
UNIT H SEC 28 T25S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921011_PLU 28 BS 707H\012921011_FIG03_DELINEATION_2021_1.mxd

TABLES

Table 1

Soil Analytical Results
PLU 28 BS 707H
Incident Number nAPP2036551506
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (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	01/25/2021	0.5	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	2,120
SS02	01/25/2021	0.5	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	2,720
SS03	01/25/2021	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	4,030
SS04	01/25/2021	0.5	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	45.0
SS05	06/03/2021	0.5	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	31.1
SS06	06/03/2021	0.5	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	28.1
SS07	06/03/2021	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	26.2
Delineation Samples										
PH01	06/03/2021	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	7.75
PH01A	06/03/2021	3	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	7.60
PH02	06/03/2021	1	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	27.4
PH02A	06/03/2021	3	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	230
PH03	06/03/2021	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	333
PH03A	06/03/2021	3	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	23.1
PH04	06/03/2021	1	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	35.0
PH04A	06/03/2021	3	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	7.47
PH05	06/03/2021	1	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	6,890
PH05A	06/03/2021	3	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	<49.8	18.6
PH06	06/03/2021	1	<0.00199	<0.00398	<49.7	<49.7	<49.7	<49.7	<49.7	48.0
PH06A	06/03/2021	3	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	128

Table 1

Soil Analytical Results
PLU 28 BS 707H
Incident Number nAPP2036551506
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (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**
PH07	06/03/2021	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	722
PH07A	06/03/2021	3	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	21.4

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 \

ATTACHMENT 1: REFERENCED WELL RECORD

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

03/10/2021

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

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-1860 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-1860 Pod1.

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

Sincerely,

Lucas Middleton

Enclosures: as noted above

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4500

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	6	6.96	N
	LONGITUDE	103	47	6.75	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE NW Sec. 28 T25S R31E

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
03/24/2021	03/24/2021	temporary well material	110	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: Hollow Stem Auger

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	110	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

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

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	Caliche, no odor, no stain, tan, light-brown	Y ✓ N	
1	3	2	Sand, no odor, no stain, m-f, well sorted, brown, trace silt, low consolidation	Y ✓ N	
3	7	4	Sandy clay, no odor, no stain, m-f, brown, well sorted, low plasticity, cohesive	Y ✓ N	
7	23	16	Caliche,tan, light brown sand, m-f grained, poorly sorted, low consolidation	Y ✓ N	
23	110	87	sand, brown, no odor, no stain, fine grained, well sorted, low consolidation	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION: PLU 28 BS 126H, Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface.
Logs adapted from WSP on-site geologist.

RECEIVED OSE D.T. MAY 5 2021 PM 01:57

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Shane Eldridge

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 05/05/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

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

2021-05-05_C-4500_OSE_Well Record and Log_plu-forsign

Final Audit Report 2021-05-05

Created:	2021-05-05
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA_LWDwlbNSqlSjjUwKTERilqyesTFMr2Q

"2021-05-05_C-4500_OSE_Well Record and Log_plu-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2021-05-05 - 8:57:19 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-05-05 - 8:57:45 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-05-05 - 9:29:12 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-05-05 - 9:29:47 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-05-05 - 9:29:47 PM GMT

Adobe Sign

PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4500- POD1

Well owner: XTO ENERGY (Kyle Littrell) Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

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

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/23

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

4) Date well plugging began: 04/27/2021 Date well plugging concluded: 04/27/2021

5) GPS Well Location: Latitude: 32 deg, 6 min, 6.96 sec
Longitude: 103 deg, 47 min, 6.75 sec, WGS 84

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

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

8) Date well plugging plan of operations was approved by the State Engineer: 12/01/2020

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

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	Approx.15.8 gallons	16 gallons	Augers	
	10'-110' Drill Cuttings	Approx. 172 gallons	172 gallons	Boring	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

RECEIVED MAY 5 2021

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins — Signature of Well Driller

05/05/2021 — Date

Version: September 8, 2009
Page 2 of 2

2021-05-05_C-4500_Plugging Record-forsign

Final Audit Report 2021-05-05

Created:	2021-05-05
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAK9L5xmxdw4gebAaYJQQaFC_WD1hBxmhv

"2021-05-05_C-4500_Plugging Record-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2021-05-05 - 8:58:09 PM GMT- IP address: 69.21.248.123

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2021-05-05 - 8:58:30 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-05-05 - 9:30:11 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-05-05 - 9:30:31 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-05-05 - 9:30:31 PM GMT

Adobe Sign

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH01	6/3/2021
Site Name: PLU 28 BS 707H	
RP or Incident Number: nAPP2036551506	
LTE Job Number: TE012921011	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	Sand, moist, reddish-orange, no stain, no odor
m	<156	0.1	N	PH01	1'	1		
						2		
m	<156	0.3	N	PH01A	3'	3		

Total Depth: 3 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH02	6/3/2021
Site Name: PLU 28 BS 707H	
RP or Incident Number: nAPP2036551506	
LTE Job Number: TE012921011	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	Sand, moist, reddish-orange, no stain, no odor
m	<156	0.0	N	PH02	1'	1		
						2		
m	268	0.0	N	PH02A	3'	3		
								Total Depth: 3 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH03	6/3/2021

Site Name: PLU 28 BS 707H

RP or Incident Number: nAPP2036551506

LTE Job Number: TE012921011

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	Sand, moist, reddish-orange, no stain, no odor
m	156	0.0	N	PH03	1'	1		
						2		
m	<156	0.0	N	PH03A	3'	3		

Total Depth: 3 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH04	6/3/2021
Site Name: PLU 28 BS 707H	
RP or Incident Number: nAPP2036551506	
LTE Job Number: TE012921011	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	Sand, moist, reddish-orange, no stain, no odor
m	<156	0.3	N	PH04	1'	1		
						2	CCHE	CALICHE, dry, tan-off white, no stain, no odor
d	<156	0.0	N	PH04A	3'	3		

Total Depth: 3 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH05	6/3/2021

Site Name: PLU 28 BS 707H

RP or Incident Number: nAPP2036551506

LTE Job Number: TE012921011

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	Sand, moist, reddish-orange, no stain, no odor
m	2,475	0.4	N	PH05	1'	1		
						2	CCHE	CALICHE, dry, tan-off white, no stain, no odor
d	<156	0.0	N	PH05A	3'	3		
								Total Depth: 3 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH06	6/3/2021
Site Name: PLU 28 BS 707H	
RP or Incident Number: nAPP2036551506	
LTE Job Number: TE012921011	
Logged By: FS	Method: Backhoe
Hole Diameter:	Total Depth: 3'

LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: Chloride, PID

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	Sand, moist, reddish-orange, no stain, no odor
m	<156	0.0	N	PH06	1'	1		
						2	CCHE	CALICHE, dry, tan-off white, no stain, no odor
d	<156	0.0	N	PH06A	3'	3		
								Total Depth: 3 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH07	6/3/2021

Site Name: PLU 28 BS 707H

RP or Incident Number: nAPP2036551506

LTE Job Number: TE012921011

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: FS	Method: Backhoe

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter:	Total Depth: 3'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	Sand, moist, reddish-orange, no stain, no odor
m	582	0.0	N	PH07	1'	1		
						2	CCHE	CALICHE, dry, tan-off white, no stain, no odor
d	<156	0.0	N	PH07A	3'	3		

Total Depth: 3 feet bgs

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 28 BS 707H Eddy County, New Mexico	TE012921011

Photo No.	Date
1	February 22, 2021

Northwestern view of release extent.

Photo No.	Date
2	February 22, 2021

Southeastern view of release extent.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 28 BS 707H Eddy County, New Mexico	TE012921011

Photo No.	Date
3	June 3, 2021

North facing view of delineation activities.

Photo No.	Date
4	June 6, 2021

West facing view of delineation activities.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-775-1
Laboratory Sample Delivery Group: TE012921011
Client Project/Site: PLU 28 BS 707H

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
6/9/2021 8:31:08 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Laboratory Job ID: 890-775-1
SDG: TE012921011

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-775-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Job ID: 890-775-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-775-1

Receipt
The samples were received on 6/3/2021 4:31 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01 (890-775-1), PH01 A (890-775-2), PH02 (890-775-3), PH02A (890-775-4), PH03 (890-775-5), PH03A (890-775-6), (890-776-A-1-C) and (890-776-A-1-B MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH05A (890-775-10), PH06A (890-775-12) and PH07 (890-775-13). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH01

Date Collected: 06/03/21 11:17
Date Received: 06/03/21 16:31
Sample Depth: - 1

Lab Sample ID: 890-775-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 00:22	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 00:22	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 00:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 00:22	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 00:22	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 00:22	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*06/04/21 09:27*	*06/05/21 00:22*	*1*
1,4-Difluorobenzene (Surr)	*122*		*70 - 130*	*06/04/21 09:27*	*06/05/21 00:22*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 03:26	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 03:26	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 03:26	1
Total TPH	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 03:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*06/04/21 15:34*	*06/05/21 03:26*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/04/21 15:34*	*06/05/21 03:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.75**		5.00		mg/Kg			06/07/21 15:11	1

Client Sample ID: PH01 A

Date Collected: 06/03/21 11:19
Date Received: 06/03/21 16:31
Sample Depth: - 3

Lab Sample ID: 890-775-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/04/21 09:27	06/05/21 00:43	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/04/21 09:27	06/05/21 00:43	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/04/21 09:27	06/05/21 00:43	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/04/21 09:27	06/05/21 00:43	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/04/21 09:27	06/05/21 00:43	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/04/21 09:27	06/05/21 00:43	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		06/04/21 09:27	06/05/21 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*06/04/21 09:27*	*06/05/21 00:43*	*1*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*	*06/04/21 09:27*	*06/05/21 00:43*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH01 A

Lab Sample ID: 890-775-2
Matrix: Solid
Date Collected: 06/03/21 11:19
Date Received: 06/03/21 16:31
Sample Depth: - 3

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 03:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 03:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 03:47	1
Total TPH	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*06/04/21 15:34*	*06/05/21 03:47*	*1*
o-Terphenyl	*99*		*70 - 130*	*06/04/21 15:34*	*06/05/21 03:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.60**		5.04		mg/Kg			06/07/21 15:16	1

Client Sample ID: PH02

Lab Sample ID: 890-775-3
Matrix: Solid
Date Collected: 06/03/21 11:25
Date Received: 06/03/21 16:31
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/05/21 01:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/05/21 01:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/05/21 01:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/04/21 09:27	06/05/21 01:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/05/21 01:04	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/04/21 09:27	06/05/21 01:04	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/04/21 09:27	06/05/21 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*06/04/21 09:27*	*06/05/21 01:04*	*1*
1,4-Difluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*06/04/21 09:27*	*06/05/21 01:04*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:09	1
Total TPH	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*06/04/21 15:34*	*06/05/21 04:09*	*1*
o-Terphenyl	*98*		*70 - 130*	*06/04/21 15:34*	*06/05/21 04:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.4**		5.02		mg/Kg			06/07/21 15:21	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH02A

Date Collected: 06/03/21 11:28
Date Received: 06/03/21 16:31
Sample Depth: - 3

Lab Sample ID: 890-775-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/04/21 09:27	06/05/21 01:25	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/04/21 09:27	06/05/21 01:25	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/04/21 09:27	06/05/21 01:25	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/04/21 09:27	06/05/21 01:25	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/04/21 09:27	06/05/21 01:25	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/04/21 09:27	06/05/21 01:25	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		06/04/21 09:27	06/05/21 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*06/04/21 09:27*	*06/05/21 01:25*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*06/04/21 09:27*	*06/05/21 01:25*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:30	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:30	1
Total TPH	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*06/04/21 15:34*	*06/05/21 04:30*	*1*
o-Terphenyl	*96*		*70 - 130*	*06/04/21 15:34*	*06/05/21 04:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**230**		4.98		mg/Kg			06/07/21 15:26	1

Client Sample ID: PH03

Date Collected: 06/03/21 11:33
Date Received: 06/03/21 16:31
Sample Depth: - 1

Lab Sample ID: 890-775-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 01:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 01:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 01:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 01:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 01:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 01:45	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*06/04/21 09:27*	*06/05/21 01:45*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*06/04/21 09:27*	*06/05/21 01:45*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH03

Lab Sample ID: 890-775-5
Matrix: Solid
Date Collected: 06/03/21 11:33
Date Received: 06/03/21 16:31
Sample Depth: - 1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 04:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 04:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 04:51	1
Total TPH	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 04:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*06/04/21 15:34*	*06/05/21 04:51*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/04/21 15:34*	*06/05/21 04:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**333**		4.99		mg/Kg			06/07/21 15:31	1

Client Sample ID: PH03A

Lab Sample ID: 890-775-6
Matrix: Solid
Date Collected: 06/03/21 11:35
Date Received: 06/03/21 16:31
Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 02:06	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 02:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 02:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 02:06	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/04/21 09:27	06/05/21 02:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 02:06	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/04/21 09:27	06/05/21 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*06/04/21 09:27*	*06/05/21 02:06*	*1*
1,4-Difluorobenzene (Surr)	*128*		*70 - 130*	*06/04/21 09:27*	*06/05/21 02:06*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:12	1
Total TPH	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*06/04/21 15:34*	*06/05/21 05:12*	*1*
o-Terphenyl	*104*		*70 - 130*	*06/04/21 15:34*	*06/05/21 05:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**23.1**		5.05		mg/Kg			06/07/21 15:36	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH04

Date Collected: 06/03/21 11:42
Date Received: 06/03/21 16:31
Sample Depth: - 1

Lab Sample ID: 890-775-7
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/04/21 15:00	06/05/21 00:49	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/04/21 15:00	06/05/21 00:49	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/04/21 15:00	06/05/21 00:49	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/04/21 15:00	06/05/21 00:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/04/21 15:00	06/05/21 00:49	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/04/21 15:00	06/05/21 00:49	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		06/04/21 15:00	06/05/21 00:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/04/21 15:00*	*06/05/21 00:49*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/04/21 15:00*	*06/05/21 00:49*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:33	1
Total TPH	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 05:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*06/04/21 15:34*	*06/05/21 05:33*	*1*
o-Terphenyl	*98*		*70 - 130*	*06/04/21 15:34*	*06/05/21 05:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.0**		4.97		mg/Kg			06/07/21 16:15	1

Client Sample ID: PH04A

Date Collected: 06/03/21 11:45
Date Received: 06/03/21 16:31
Sample Depth: - 3

Lab Sample ID: 890-775-8
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/05/21 01:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/05/21 01:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/05/21 01:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/04/21 15:00	06/05/21 01:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/05/21 01:09	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/04/21 15:00	06/05/21 01:09	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/04/21 15:00	06/05/21 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/04/21 15:00*	*06/05/21 01:09*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/04/21 15:00*	*06/05/21 01:09*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH04A

Lab Sample ID: 890-775-8
Matrix: Solid
Date Collected: 06/03/21 11:45
Date Received: 06/03/21 16:31
Sample Depth: - 3

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 06:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 06:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 06:15	1
Total TPH	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 06:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*06/04/21 15:34*	*06/05/21 06:15*	*1*
o-Terphenyl	*106*		*70 - 130*	*06/04/21 15:34*	*06/05/21 06:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.47**		4.96		mg/Kg			06/07/21 16:30	1

Client Sample ID: PH05

Lab Sample ID: 890-775-9
Matrix: Solid
Date Collected: 06/03/21 11:52
Date Received: 06/03/21 16:31
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 01:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 01:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 01:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 01:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 01:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 01:30	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*06/04/21 15:00*	*06/05/21 01:30*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*06/04/21 15:00*	*06/05/21 01:30*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 06:36	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 06:36	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 06:36	1
Total TPH	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 06:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*108*		*70 - 130*	*06/04/21 15:34*	*06/05/21 06:36*	*1*
o-Terphenyl	*107*		*70 - 130*	*06/04/21 15:34*	*06/05/21 06:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6890**		49.5		mg/Kg			06/07/21 16:34	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH05A

Date Collected: 06/03/21 11:55
Date Received: 06/03/21 16:31
Sample Depth: - 3

Lab Sample ID: 890-775-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 01:50	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 01:50	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 01:50	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/04/21 15:00	06/05/21 01:50	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 01:50	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/04/21 15:00	06/05/21 01:50	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		06/04/21 15:00	06/05/21 01:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/04/21 15:00*	*06/05/21 01:50*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/04/21 15:00*	*06/05/21 01:50*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 06:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 06:58	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 06:58	1
Total TPH	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 06:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*06/04/21 15:34*	*06/05/21 06:58*	*1*
o-Terphenyl	*108*		*70 - 130*	*06/04/21 15:34*	*06/05/21 06:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.6**		4.99		mg/Kg			06/07/21 16:39	1

Client Sample ID: PH06

Date Collected: 06/03/21 12:02
Date Received: 06/03/21 16:31
Sample Depth: - 1

Lab Sample ID: 890-775-11

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 02:11	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:11	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 02:11	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 02:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*06/04/21 15:00*	*06/05/21 02:11*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/04/21 15:00*	*06/05/21 02:11*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH06

Lab Sample ID: 890-775-11
Matrix: Solid
Date Collected: 06/03/21 12:02
Date Received: 06/03/21 16:31
Sample Depth: - 1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 07:19	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 07:19	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 07:19	1
Total TPH	<49.7	U	49.7		mg/Kg		06/04/21 15:34	06/05/21 07:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*06/04/21 15:34*	*06/05/21 07:19*	*1*
o-Terphenyl	*107*		*70 - 130*	*06/04/21 15:34*	*06/05/21 07:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.0**		4.95		mg/Kg			06/07/21 16:44	1

Client Sample ID: PH06A

Lab Sample ID: 890-775-12
Matrix: Solid
Date Collected: 06/03/21 12:05
Date Received: 06/03/21 16:31
Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 02:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/04/21 15:00	06/05/21 02:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 02:31	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/04/21 15:00	06/05/21 02:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*	*06/04/21 15:00*	*06/05/21 02:31*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*06/04/21 15:00*	*06/05/21 02:31*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 07:40	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 07:40	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 07:40	1
Total TPH	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 07:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*06/04/21 15:34*	*06/05/21 07:40*	*1*
o-Terphenyl	*99*		*70 - 130*	*06/04/21 15:34*	*06/05/21 07:40*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**128**		4.95		mg/Kg			06/07/21 16:59	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH07

Date Collected: 06/03/21 12:12
Date Received: 06/03/21 16:31
Sample Depth: - 1

Lab Sample ID: 890-775-13

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/04/21 15:00	06/05/21 02:51	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/04/21 15:00	06/05/21 02:51	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/04/21 15:00	06/05/21 02:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/04/21 15:00	06/05/21 02:51	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/04/21 15:00	06/05/21 02:51	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/04/21 15:00	06/05/21 02:51	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		06/04/21 15:00	06/05/21 02:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*06/04/21 15:00*	*06/05/21 02:51*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/04/21 15:00*	*06/05/21 02:51*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 08:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 08:02	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 08:02	1
Total TPH	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*06/04/21 15:34*	*06/05/21 08:02*	*1*
o-Terphenyl	*98*		*70 - 130*	*06/04/21 15:34*	*06/05/21 08:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**722**		4.95		mg/Kg			06/09/21 13:45	1

Client Sample ID: PH07A

Date Collected: 06/03/21 12:17
Date Received: 06/03/21 16:31
Sample Depth: - 3

Lab Sample ID: 890-775-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 04:41	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 04:41	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 04:41	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		06/04/21 15:00	06/05/21 04:41	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/04/21 15:00	06/05/21 04:41	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/04/21 15:00	06/05/21 04:41	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		06/04/21 15:00	06/05/21 04:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*06/04/21 15:00*	*06/05/21 04:41*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/04/21 15:00*	*06/05/21 04:41*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH07A

Date Collected: 06/03/21 12:17
Date Received: 06/03/21 16:31
Sample Depth: - 3

Lab Sample ID: 890-775-14

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 08:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 08:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 08:23	1
Total TPH	<49.9	U	49.9		mg/Kg		06/04/21 15:34	06/05/21 08:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*06/04/21 15:34*	*06/05/21 08:23*	*1*
o-Terphenyl	*99*		*70 - 130*	*06/04/21 15:34*	*06/05/21 08:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.4**		4.95		mg/Kg			06/08/21 17:16	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
890-775-1	PH01	102	122										
890-775-2	PH01 A	105	126										
890-775-3	PH02	104	132 S1+										
890-775-4	PH02A	102	118										
890-775-5	PH03	92	105										
890-775-6	PH03A	107	128										
890-775-7	PH04	117	101										
890-775-8	PH04A	117	102										
890-775-9	PH05	124	98										
890-775-10	PH05A	113	103										
890-775-11	PH06	117	103										
890-775-12	PH06A	141 S1+	90										
890-775-13	PH07	121	95										
890-775-14	PH07A	109	101										
LCS 880-3773/1-B	Lab Control Sample	110	98										
LCS 880-3790/1-A	Lab Control Sample	88	111										
LCSD 880-3773/2-B	Lab Control Sample Dup	110	97										
LCSD 880-3790/2-A	Lab Control Sample Dup	85	109										
MB 880-3773/5-B	Method Blank	110	93										
MB 880-3785/5-A	Method Blank	112	94										
MB 880-3790/5-A	Method Blank	101	92										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-775-1	PH01	104	100										
890-775-2	PH01 A	102	99										
890-775-3	PH02	102	98										
890-775-4	PH02A	100	96										
890-775-5	PH03	106	100										
890-775-6	PH03A	107	104										
890-775-7	PH04	103	98										
890-775-8	PH04A	108	106										
890-775-9	PH05	108	107										
890-775-10	PH05A	110	108										
890-775-11	PH06	112	107										
890-775-12	PH06A	101	99										
890-775-13	PH07	98	98										
890-775-14	PH07A	100	99										
LCS 880-3811/2-A	Lab Control Sample	99	88										
LCSD 880-3811/3-A	Lab Control Sample Dup	105	92										
MB 880-3811/1-A	Method Blank	101	100										

Surrogate Legend

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3773/5-B
Matrix: Solid
Analysis Batch: 3786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3773

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/04/21 23:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/04/21 23:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/04/21 23:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/04/21 15:00	06/04/21 23:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 15:00	06/04/21 23:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/04/21 15:00	06/04/21 23:19	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/04/21 15:00	06/04/21 23:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/04/21 15:00*	*06/04/21 23:19*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/04/21 15:00*	*06/04/21 23:19*	*1*

Lab Sample ID: LCS 880-3773/1-B
Matrix: Solid
Analysis Batch: 3786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3773

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09156		mg/Kg		92	70 - 130		
Toluene			0.100	0.1021		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1030		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene			0.200	0.2105		mg/Kg		105	70 - 130		
o-Xylene			0.100	0.1071		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-3773/2-B
Matrix: Solid
Analysis Batch: 3786

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3773

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09035		mg/Kg		90	70 - 130	1	35
Toluene			0.100	0.1011		mg/Kg		101	70 - 130	1	35
Ethylbenzene			0.100	0.1031		mg/Kg		103	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2117		mg/Kg		106	70 - 130	1	35
o-Xylene			0.100	0.1087		mg/Kg		109	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: MB 880-3785/5-A
Matrix: Solid
Analysis Batch: 3786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3785

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:28	06/04/21 11:43	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-3785/5-A
Matrix: Solid
Analysis Batch: 3786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3785

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:28	06/04/21 11:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:28	06/04/21 11:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/04/21 08:28	06/04/21 11:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:28	06/04/21 11:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/04/21 08:28	06/04/21 11:43	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/04/21 08:28	06/04/21 11:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/04/21 08:28*	*06/04/21 11:43*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/04/21 08:28*	*06/04/21 11:43*	*1*

Lab Sample ID: MB 880-3790/5-A
Matrix: Solid
Analysis Batch: 3809

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3790

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/04/21 18:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/04/21 18:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/04/21 18:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/04/21 09:27	06/04/21 18:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 09:27	06/04/21 18:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/04/21 09:27	06/04/21 18:08	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/04/21 09:27	06/04/21 18:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*06/04/21 09:27*	*06/04/21 18:08*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/04/21 09:27*	*06/04/21 18:08*	*1*

Lab Sample ID: LCS 880-3790/1-A
Matrix: Solid
Analysis Batch: 3809

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3790

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09194		mg/Kg		92	70 - 130		
Toluene			0.100	0.09438		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09133		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1842		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.08927		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-3790/2-A
Matrix: Solid
Analysis Batch: 3809

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3790

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09062		mg/Kg		91	70 - 130	1	35
Toluene			0.100	0.09219		mg/Kg		92	70 - 130	2	35
Ethylbenzene			0.100	0.09002		mg/Kg		90	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1835		mg/Kg		92	70 - 130	0	35
o-Xylene			0.100	0.08898		mg/Kg		89	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-3811/1-A
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3811

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1
Total TPH	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*06/04/21 15:34*	*06/05/21 00:39*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/04/21 15:34*	*06/05/21 00:39*	*1*

Lab Sample ID: LCS 880-3811/2-A
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3811

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	926.2		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1028		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: LCSD 880-3811/3-A
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3811

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	970.7		mg/Kg		97	70 - 130	5	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 880-3811/3-A
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3811

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	1093		mg/Kg		109	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3793/1-A
Matrix: Solid
Analysis Batch: 3853

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte			MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride			<5.00	U	5.00		mg/Kg			06/07/21 13:09	1

Lab Sample ID: LCS 880-3793/2-A
Matrix: Solid
Analysis Batch: 3853

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	252.2		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-3793/3-A
Matrix: Solid
Analysis Batch: 3853

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	252.4		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-3791/1-A
Matrix: Solid
Analysis Batch: 3854

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte			MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride			<5.00	U	5.00		mg/Kg			06/07/21 16:00	1

Lab Sample ID: LCS 880-3791/2-A
Matrix: Solid
Analysis Batch: 3854

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	252.9		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-3791/3-A
Matrix: Solid
Analysis Batch: 3854

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	253.1		mg/Kg		101	90 - 110	0	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-775-7 MS
Matrix: Solid
Analysis Batch: 3854

Client Sample ID: PH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	35.0		249	289.7		mg/Kg		103	90 - 110

Lab Sample ID: 890-775-7 MSD
Matrix: Solid
Analysis Batch: 3854

Client Sample ID: PH04
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	35.0		249	290.3		mg/Kg		103	90 - 110	0	20

Lab Sample ID: MB 880-3861/1-A
Matrix: Solid
Analysis Batch: 3886

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/08/21 14:03	1

Lab Sample ID: LCS 880-3861/2-A
Matrix: Solid
Analysis Batch: 3886

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	252.0		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-3861/3-A
Matrix: Solid
Analysis Batch: 3886

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	251.3		mg/Kg		101	90 - 110	0	20

Lab Sample ID: MB 880-3842/1-A
Matrix: Solid
Analysis Batch: 3891

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/09/21 11:01	1

Lab Sample ID: LCS 880-3842/2-A
Matrix: Solid
Analysis Batch: 3891

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	249.5		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-3842/3-A
Matrix: Solid
Analysis Batch: 3891

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	249.5		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

GC VOA

Prep Batch: 3773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-7	PH04	Total/NA	Solid	5035	
890-775-8	PH04A	Total/NA	Solid	5035	
890-775-9	PH05	Total/NA	Solid	5035	
890-775-10	PH05A	Total/NA	Solid	5035	
890-775-11	PH06	Total/NA	Solid	5035	
890-775-12	PH06A	Total/NA	Solid	5035	
890-775-13	PH07	Total/NA	Solid	5035	
890-775-14	PH07A	Total/NA	Solid	5035	
MB 880-3773/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-3773/1-B	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3773/2-B	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 3785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3785/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 3786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-7	PH04	Total/NA	Solid	8021B	3773
890-775-8	PH04A	Total/NA	Solid	8021B	3773
890-775-9	PH05	Total/NA	Solid	8021B	3773
890-775-10	PH05A	Total/NA	Solid	8021B	3773
890-775-11	PH06	Total/NA	Solid	8021B	3773
890-775-12	PH06A	Total/NA	Solid	8021B	3773
890-775-13	PH07	Total/NA	Solid	8021B	3773
890-775-14	PH07A	Total/NA	Solid	8021B	3773
MB 880-3773/5-B	Method Blank	Total/NA	Solid	8021B	3773
MB 880-3785/5-A	Method Blank	Total/NA	Solid	8021B	3785
LCS 880-3773/1-B	Lab Control Sample	Total/NA	Solid	8021B	3773
LCSD 880-3773/2-B	Lab Control Sample Dup	Total/NA	Solid	8021B	3773

Prep Batch: 3790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-1	PH01	Total/NA	Solid	5035	
890-775-2	PH01 A	Total/NA	Solid	5035	
890-775-3	PH02	Total/NA	Solid	5035	
890-775-4	PH02A	Total/NA	Solid	5035	
890-775-5	PH03	Total/NA	Solid	5035	
890-775-6	PH03A	Total/NA	Solid	5035	
MB 880-3790/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3790/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3790/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-1	PH01	Total/NA	Solid	8021B	3790
890-775-2	PH01 A	Total/NA	Solid	8021B	3790
890-775-3	PH02	Total/NA	Solid	8021B	3790
890-775-4	PH02A	Total/NA	Solid	8021B	3790
890-775-5	PH03	Total/NA	Solid	8021B	3790
890-775-6	PH03A	Total/NA	Solid	8021B	3790

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

GC VOA (Continued)

Analysis Batch: 3809 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3790/5-A	Method Blank	Total/NA	Solid	8021B	3790
LCS 880-3790/1-A	Lab Control Sample	Total/NA	Solid	8021B	3790
LCSD 880-3790/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3790

GC Semi VOA

Analysis Batch: 3802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-1	PH01	Total/NA	Solid	8015B NM	3811
890-775-2	PH01 A	Total/NA	Solid	8015B NM	3811
890-775-3	PH02	Total/NA	Solid	8015B NM	3811
890-775-4	PH02A	Total/NA	Solid	8015B NM	3811
890-775-5	PH03	Total/NA	Solid	8015B NM	3811
890-775-6	PH03A	Total/NA	Solid	8015B NM	3811
890-775-7	PH04	Total/NA	Solid	8015B NM	3811
890-775-8	PH04A	Total/NA	Solid	8015B NM	3811
890-775-9	PH05	Total/NA	Solid	8015B NM	3811
890-775-10	PH05A	Total/NA	Solid	8015B NM	3811
890-775-11	PH06	Total/NA	Solid	8015B NM	3811
890-775-12	PH06A	Total/NA	Solid	8015B NM	3811
890-775-13	PH07	Total/NA	Solid	8015B NM	3811
890-775-14	PH07A	Total/NA	Solid	8015B NM	3811
MB 880-3811/1-A	Method Blank	Total/NA	Solid	8015B NM	3811
LCS 880-3811/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3811
LCSD 880-3811/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3811

Prep Batch: 3811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-1	PH01	Total/NA	Solid	8015NM Prep	
890-775-2	PH01 A	Total/NA	Solid	8015NM Prep	
890-775-3	PH02	Total/NA	Solid	8015NM Prep	
890-775-4	PH02A	Total/NA	Solid	8015NM Prep	
890-775-5	PH03	Total/NA	Solid	8015NM Prep	
890-775-6	PH03A	Total/NA	Solid	8015NM Prep	
890-775-7	PH04	Total/NA	Solid	8015NM Prep	
890-775-8	PH04A	Total/NA	Solid	8015NM Prep	
890-775-9	PH05	Total/NA	Solid	8015NM Prep	
890-775-10	PH05A	Total/NA	Solid	8015NM Prep	
890-775-11	PH06	Total/NA	Solid	8015NM Prep	
890-775-12	PH06A	Total/NA	Solid	8015NM Prep	
890-775-13	PH07	Total/NA	Solid	8015NM Prep	
890-775-14	PH07A	Total/NA	Solid	8015NM Prep	
MB 880-3811/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3811/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3811/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-7	PH04	Soluble	Solid	DI Leach	
890-775-8	PH04A	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

HPLC/IC (Continued)

Leach Batch: 3791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-9	PH05	Soluble	Solid	DI Leach	
890-775-10	PH05A	Soluble	Solid	DI Leach	
890-775-11	PH06	Soluble	Solid	DI Leach	
890-775-12	PH06A	Soluble	Solid	DI Leach	
MB 880-3791/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3791/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3791/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-775-7 MS	PH04	Soluble	Solid	DI Leach	
890-775-7 MSD	PH04	Soluble	Solid	DI Leach	

Leach Batch: 3793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-1	PH01	Soluble	Solid	DI Leach	
890-775-2	PH01 A	Soluble	Solid	DI Leach	
890-775-3	PH02	Soluble	Solid	DI Leach	
890-775-4	PH02A	Soluble	Solid	DI Leach	
890-775-5	PH03	Soluble	Solid	DI Leach	
890-775-6	PH03A	Soluble	Solid	DI Leach	
MB 880-3793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 3842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-13	PH07	Soluble	Solid	DI Leach	
MB 880-3842/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3842/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3842/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-1	PH01	Soluble	Solid	300.0	3793
890-775-2	PH01 A	Soluble	Solid	300.0	3793
890-775-3	PH02	Soluble	Solid	300.0	3793
890-775-4	PH02A	Soluble	Solid	300.0	3793
890-775-5	PH03	Soluble	Solid	300.0	3793
890-775-6	PH03A	Soluble	Solid	300.0	3793
MB 880-3793/1-A	Method Blank	Soluble	Solid	300.0	3793
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	300.0	3793
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3793

Analysis Batch: 3854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-7	PH04	Soluble	Solid	300.0	3791
890-775-8	PH04A	Soluble	Solid	300.0	3791
890-775-9	PH05	Soluble	Solid	300.0	3791
890-775-10	PH05A	Soluble	Solid	300.0	3791
890-775-11	PH06	Soluble	Solid	300.0	3791
890-775-12	PH06A	Soluble	Solid	300.0	3791
MB 880-3791/1-A	Method Blank	Soluble	Solid	300.0	3791
LCS 880-3791/2-A	Lab Control Sample	Soluble	Solid	300.0	3791

QC Association Summary

Client: WSP USA Inc. Job ID: 890-775-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

HPLC/IC (Continued)

Analysis Batch: 3854 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-3791/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3791
890-775-7 MS	PH04	Soluble	Solid	300.0	3791
890-775-7 MSD	PH04	Soluble	Solid	300.0	3791

Leach Batch: 3861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-14	PH07A	Soluble	Solid	DI Leach	
MB 880-3861/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3861/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3861/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-14	PH07A	Soluble	Solid	300.0	3861
MB 880-3861/1-A	Method Blank	Soluble	Solid	300.0	3861
LCS 880-3861/2-A	Lab Control Sample	Soluble	Solid	300.0	3861
LCSD 880-3861/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3861

Analysis Batch: 3891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-775-13	PH07	Soluble	Solid	300.0	3842
MB 880-3842/1-A	Method Blank	Soluble	Solid	300.0	3842
LCS 880-3842/2-A	Lab Control Sample	Soluble	Solid	300.0	3842
LCSD 880-3842/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3842

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-775-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

Client Sample ID: PH01 Lab Sample ID: 890-775-1

Date Collected: 06/03/21 11:17 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3790	06/04/21 09:27	KL	XEN MID
Total/NA	Analysis	8021B		1	3809	06/05/21 00:22	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 03:26	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 15:11	CH	XEN MID

Client Sample ID: PH01 A Lab Sample ID: 890-775-2

Date Collected: 06/03/21 11:19 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3790	06/04/21 09:27	KL	XEN MID
Total/NA	Analysis	8021B		1	3809	06/05/21 00:43	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 03:47	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 15:16	CH	XEN MID

Client Sample ID: PH02 Lab Sample ID: 890-775-3

Date Collected: 06/03/21 11:25 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3790	06/04/21 09:27	KL	XEN MID
Total/NA	Analysis	8021B		1	3809	06/05/21 01:04	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 04:09	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 15:21	CH	XEN MID

Client Sample ID: PH02A Lab Sample ID: 890-775-4

Date Collected: 06/03/21 11:28 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3790	06/04/21 09:27	KL	XEN MID
Total/NA	Analysis	8021B		1	3809	06/05/21 01:25	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 04:30	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 15:26	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-775-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

Client Sample ID: PH03 — Lab Sample ID: 890-775-5

Date Collected: 06/03/21 11:33 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3790	06/04/21 09:27	KL	XEN MID
Total/NA	Analysis	8021B		1	3809	06/05/21 01:45	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 04:51	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 15:31	CH	XEN MID

Client Sample ID: PH03A — Lab Sample ID: 890-775-6

Date Collected: 06/03/21 11:35 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3790	06/04/21 09:27	KL	XEN MID
Total/NA	Analysis	8021B		1	3809	06/05/21 02:06	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 05:12	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 15:36	CH	XEN MID

Client Sample ID: PH04 — Lab Sample ID: 890-775-7

Date Collected: 06/03/21 11:42 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 00:49	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 05:33	AM	XEN MID
Soluble	Leach	DI Leach			3791	06/04/21 09:36	CH	XEN MID
Soluble	Analysis	300.0		1	3854	06/07/21 16:15	CH	XEN MID

Client Sample ID: PH04A — Lab Sample ID: 890-775-8

Date Collected: 06/03/21 11:45 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 01:09	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 06:15	AM	XEN MID
Soluble	Leach	DI Leach			3791	06/04/21 09:36	CH	XEN MID
Soluble	Analysis	300.0		1	3854	06/07/21 16:30	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Client Sample ID: PH05
Date Collected: 06/03/21 11:52
Date Received: 06/03/21 16:31

Lab Sample ID: 890-775-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 01:30	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 06:36	AM	XEN MID
Soluble	Leach	DI Leach			3791	06/04/21 09:36	CH	XEN MID
Soluble	Analysis	300.0		10	3854	06/07/21 16:34	CH	XEN MID

Client Sample ID: PH05A
Date Collected: 06/03/21 11:55
Date Received: 06/03/21 16:31

Lab Sample ID: 890-775-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 01:50	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 06:58	AM	XEN MID
Soluble	Leach	DI Leach			3791	06/04/21 09:36	CH	XEN MID
Soluble	Analysis	300.0		1	3854	06/07/21 16:39	CH	XEN MID

Client Sample ID: PH06
Date Collected: 06/03/21 12:02
Date Received: 06/03/21 16:31

Lab Sample ID: 890-775-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 02:11	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 07:19	AM	XEN MID
Soluble	Leach	DI Leach			3791	06/04/21 09:36	CH	XEN MID
Soluble	Analysis	300.0		1	3854	06/07/21 16:44	CH	XEN MID

Client Sample ID: PH06A
Date Collected: 06/03/21 12:05
Date Received: 06/03/21 16:31

Lab Sample ID: 890-775-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 02:31	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 07:40	AM	XEN MID
Soluble	Leach	DI Leach			3791	06/04/21 09:36	CH	XEN MID
Soluble	Analysis	300.0		1	3854	06/07/21 16:59	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-775-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

Client Sample ID: PH07 Lab Sample ID: 890-775-13

Date Collected: 06/03/21 12:12 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 02:51	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 08:02	AM	XEN MID
Soluble	Leach	DI Leach			3842	06/07/21 10:26	CH	XEN MID
Soluble	Analysis	300.0		1	3891	06/09/21 13:45	CH	XEN MID

Client Sample ID: PH07A Lab Sample ID: 890-775-14

Date Collected: 06/03/21 12:17 **Matrix: Solid**
Date Received: 06/03/21 16:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3773	06/04/21 15:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3786	06/05/21 04:41	MR	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 08:23	AM	XEN MID
Soluble	Leach	DI Leach			3861	06/07/21 16:13	SC	XEN MID
Soluble	Analysis	300.0		1	3886	06/08/21 17:16	CH	XEN MID

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-775-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-775-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-775-1
SDG: TE012921011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-775-1	PH01	Solid	06/03/21 11:17	06/03/21 16:31	- 1
890-775-2	PH01 A	Solid	06/03/21 11:19	06/03/21 16:31	- 3
890-775-3	PH02	Solid	06/03/21 11:25	06/03/21 16:31	- 1
890-775-4	PH02A	Solid	06/03/21 11:28	06/03/21 16:31	- 3
890-775-5	PH03	Solid	06/03/21 11:33	06/03/21 16:31	- 1
890-775-6	PH03A	Solid	06/03/21 11:35	06/03/21 16:31	- 3
890-775-7	PH04	Solid	06/03/21 11:42	06/03/21 16:31	- 1
890-775-8	PH04A	Solid	06/03/21 11:45	06/03/21 16:31	- 3
890-775-9	PH05	Solid	06/03/21 11:52	06/03/21 16:31	- 1
890-775-10	PH05A	Solid	06/03/21 11:55	06/03/21 16:31	- 3
890-775-11	PH06	Solid	06/03/21 12:02	06/03/21 16:31	- 1
890-775-12	PH06A	Solid	06/03/21 12:05	06/03/21 16:31	- 3
890-775-13	PH07	Solid	06/03/21 12:12	06/03/21 16:31	- 1
890-775-14	PH07A	Solid	06/03/21 12:17	06/03/21 16:31	- 3

NAPP2036551006
API 3001545732
AFE DD.2017.0902.CAP.CMP.01

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(817) 683-2503 Email:	Kalei.jennings@wsp.com, fatima.smith@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 28 BS 707H	Turn Around	☑ Routine ☐ Rush
Project Number:	TE01292101I	Due Date:	
Project Location:	Eddy county	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Fatima Smith		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	IR-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.8	
Total Containers:	6	Corrected Temperature:	1.6	

Preservative Codes
None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
NaHSO$_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

890-775 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH01	S	6/3/21	1117	1'		1	X	X	X	
PH01A			1119	3'						
PH02			1125	1'						
PH02A			1128	3'						
PH03			1133	1'						
PH03A			1135	3'						
PH04			1142	1'						
PH04A			1145	3'						
PH05			1152	1'						
PH05A	↓	↓	1155	3'		↓				

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr 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 Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6-3-21 1622	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

incident NAPP2036001006
API 30015457732
AFE DD.2017.01902.CAP.cmp.01

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(817)683-2503	Email:	Kalei.jennings@wsp.com, fatima.smith@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 28 BS 707H	Turn Around	☑ Routine ☐ Rush
Project Number:	TE012921011	Due Date:	
Project Location:	Eddy county	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Fatima Smith		
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	Pg1	
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH06	S	6/3/21	1202	1'		1					
PH06A			1205	3'							
PH07			1212	1'							
PH07A			1217	3'							

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr 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 Hg: 1631 / 245.1 / 7470 / 7471

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6-3-21 1626	2		
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-251 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-775-1
Address: 1211 W Florida Ave	Due Date Requested: 6/9/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: PLU 28 BS 707H	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A HCL	M - Hexane
B NaOH	N None
C Zn Acetate	O AsNaO2
D - Nitric Acid	P Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R Na2S2O3
G Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I Ice	U Acetone
J DI Water	V MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
PH01 (890-775-1)	6/3/21	11 17 Mountain		Solid			X	X	X	1	
PH01 A (890-775-2)	6/3/21	11 19 Mountain		Solid			X	X	X	1	
PH02 (890-775-3)	6/3/21	11 25 Mountain		Solid			X	X	X	1	
PH02A (890-775-4)	6/3/21	11 28 Mountain		Solid			X	X	X	1	
PH03 (890-775-5)	6/3/21	11 33 Mountain		Solid			X	X	X	1	
PH03A (890-775-6)	6/3/21	11 35 Mountain		Solid			X	X	X	1	
PH04 (890-775-7)	6/3/21	11 42 Mountain		Solid			X	X	X	1	
PH04A (890-775-8)	6/3/21	11 45 Mountain		Solid			X	X	X	1	
PH05 (890-775-9)	6/3/21	11 52 Mountain		Solid			X	X	X	1	

Note: Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Chloe Coyle 6-4-21	Date/Time:	Company	Received by:	Date/Time: 6-4-21 2:40 PM	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-775-1
SDG Number: TE012921011

Login Number: 775
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-775-1
SDG Number: TE012921011

Login Number: 775
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/04/21 02:45 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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Certificate of Analysis Summary 686081

WSP USA, Dallas, TX

Project Name: PLU 28 BS 707 H

Project Id: AFE DO 2017 01902 CAP CMP01
Contact: Dan Moir
Project Location:

Date Received in Lab: Tue 01.26.2021 13:17
Report Date: 02.02.2021 09:47
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	686081-001		686081-002		686081-003		686081-004					
	Field Id:	SS01		SS02		SS03		SS04					
	Depth:	0.5- ft		0.5- ft		0.5- ft		0.5- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	01.25.2021 13:44		01.25.2021 13:53		01.25.2021 13:58		01.25.2021 14:05					
BTEX by EPA 8021B	***Extracted:***	01.26.2021 16:00		01.26.2021 16:00		01.26.2021 16:00		01.26.2021 16:00					
	Analyzed:	01.26.2021 23:26		01.27.2021 00:46		01.27.2021 01:08		01.27.2021 01:31					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200				
Toluene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200				
Ethylbenzene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200				
m,p-Xylenes		<0.00399	0.00399	<0.00397	0.00397	<0.00401	0.00401	<0.00399	0.00399				
o-Xylene		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200				
Total Xylenes		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200				
Total BTEX		<0.00200	0.00200	<0.00198	0.00198	<0.00200	0.00200	<0.00200	0.00200				
Chloride by EPA 300	***Extracted:***	01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38		01.26.2021 19:38					
	Analyzed:	01.27.2021 14:54		01.27.2021 14:59		01.27.2021 15:16		01.27.2021 15:22					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		2120	100	2720	101	4030	100	45.0	9.90				
TPH by SW8015 Mod SUB: T104704400-20-21	***Extracted:***	01.28.2021 12:00		01.28.2021 12:00		01.28.2021 12:00		01.28.2021 12:00					
	Analyzed:	01.28.2021 20:11		01.28.2021 20:33		01.28.2021 20:54		01.28.2021 21:15					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9				
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9				
Total GRO-DRO		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9				
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.9	49.9				

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 686081

for

WSP USA

Project Manager: Dan Moir

PLU 28 BS 707 H

AFE DO 2017 01902 CAP CMP01

02.02.2021

Collected By: Client

1089 N Canal Street
Carlsbad, NM 88220

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

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02.02.2021

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

Reference: Eurofins Xenco, LLC Report No(s): **686081**
PLU 28 BS 707 H
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) 686081. 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. 686081 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 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SS01	S	01.25.2021 13:44	0.5 ft	686081-001
SS02	S	01.25.2021 13:53	0.5 ft	686081-002
SS03	S	01.25.2021 13:58	0.5 ft	686081-003
SS04	S	01.25.2021 14:05	0.5 ft	686081-004

CASE NARRATIVE

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Client Name: WSP USA

Project Name: PLU 28 BS 707 H

Project ID: *AFE DO 2017 01902 CAF*
Work Order Number(s): *686081*

Report Date: *02.02.2021*
Date Received: *01.26.2021*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3149582 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7720312-1-BLK.

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	01.26.2021 13:17
Lab Sample Id:	686081-001	Date Collected:	01.25.2021 13:44	Sample Depth:	0.5 ft

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

Tech: MAB

Analyst: MAB — Date Prep: 01.26.2021 19:38 — % Moisture:

Seq Number: 3149213 — Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2120**	100	mg/kg	01.27.2021 14:54		10

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

Tech: DVM

Analyst: ARM — Date Prep: 01.28.2021 12:00 — % Moisture:

Seq Number: 3149582 — Basis: Wet Weight

SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.28.2021 20:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.28.2021 20:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.28.2021 20:11	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.28.2021 20:11	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.28.2021 20:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	01.28.2021 20:11	
o-Terphenyl	84-15-1	97	%	70-130	01.28.2021 20:11	

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id:	**SS01**	Matrix:	Soil	Date Received:	01.26.2021 13:17
Lab Sample Id:	686081-001	Date Collected:	01.25.2021 13:44	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 23:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 23:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 23:26	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 23:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 23:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 23:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 23:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.26.2021 23:26	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.26.2021 23:26	

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	01.26.2021 13:17
Lab Sample Id:	686081-002	Date Collected:	01.25.2021 13:53	Sample Depth:	0.5 ft

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

Tech: MAB
Analyst: MAB
Seq Number: 3149213

Date Prep: 01.26.2021 19:38

% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2720**	101	mg/kg	01.27.2021 14:59		10

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

Tech: DVM
Analyst: ARM
Seq Number: 3149582

Date Prep: 01.28.2021 12:00

% Moisture:
Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.28.2021 20:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.28.2021 20:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.28.2021 20:33	U	1
Total GRO-DRO	PHC628	<50.0	50.0	mg/kg	01.28.2021 20:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.28.2021 20:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	01.28.2021 20:33	
o-Terphenyl	84-15-1	107	%	70-130	01.28.2021 20:33	

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id:	**SS02**	Matrix:	Soil	Date Received:	01.26.2021 13:17
Lab Sample Id:	686081-002	Date Collected:	01.25.2021 13:53	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.27.2021 00:46	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.27.2021 00:46	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.27.2021 00:46	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.27.2021 00:46	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.27.2021 00:46	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.27.2021 00:46	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.27.2021 00:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.27.2021 00:46	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.27.2021 00:46	

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id: **SS03** Matrix: Soil Date Received:01.26.2021 13:17
Lab Sample Id: 686081-003 Date Collected: 01.25.2021 13:58 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:
Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4030**	100	mg/kg	01.27.2021 15:16		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.28.2021 12:00 % Moisture:
Seq Number: 3149582 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.28.2021 20:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.28.2021 20:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.28.2021 20:54	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.28.2021 20:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.28.2021 20:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	01.28.2021 20:54	
o-Terphenyl	84-15-1	101	%	70-130	01.28.2021 20:54	

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id:	**SS03**	Matrix:	Soil	Date Received:	01.26.2021 13:17
Lab Sample Id:	686081-003	Date Collected:	01.25.2021 13:58	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.27.2021 01:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.27.2021 01:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.27.2021 01:08	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.27.2021 01:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.27.2021 01:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.27.2021 01:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.27.2021 01:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.27.2021 01:08	
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.27.2021 01:08	

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id: **SS04** Matrix: Soil Date Received:01.26.2021 13:17
Lab Sample Id: 686081-004 Date Collected: 01.25.2021 14:05 Sample Depth: 0.5 ft

Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.26.2021 19:38 % Moisture:
Seq Number: 3149213 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**45.0**	9.90	mg/kg	01.27.2021 15:22		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.28.2021 12:00 % Moisture:
Seq Number: 3149582 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.28.2021 21:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.28.2021 21:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.28.2021 21:15	U	1
Total GRO-DRO	PHC628	<49.9	49.9	mg/kg	01.28.2021 21:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.28.2021 21:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	01.28.2021 21:15	
o-Terphenyl	84-15-1	99	%	70-130	01.28.2021 21:15	

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Certificate of Analytical Results 686081

WSP USA, Dallas, TX

PLU 28 BS 707 H

Sample Id:	**SS04**	Matrix:	Soil	Date Received:	01.26.2021 13:17
Lab Sample Id:	686081-004	Date Collected:	01.25.2021 14:05	Sample Depth:	0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MAB				
Analyst:	MAB	Date Prep:	01.26.2021 16:00	% Moisture:	
Seq Number:	3149067			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.27.2021 01:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.27.2021 01:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.27.2021 01:31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.27.2021 01:31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.27.2021 01:31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.27.2021 01:31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.27.2021 01:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.27.2021 01:31	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.27.2021 01:31	

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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 686081

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WSP USA

PLU 28 BS 707 H

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149213 — Matrix: Solid — Date Prep: 01.26.2021
MB Sample Id: 7720054-1-BLK — LCS Sample Id: 7720054-1-BKS — LCSD Sample Id: 7720054-1-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	200	213	107	210	105	90-110	1	20	mg/kg	01.27.2021 14:14	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149213 — Matrix: Soil — Date Prep: 01.26.2021
Parent Sample Id: 685999-001 — MS Sample Id: 685999-001 S — MSD Sample Id: 685999-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1970	403	2360	97	2340	93	90-110	1	20	mg/kg	01.27.2021 14:31	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3149213 — Matrix: Soil — Date Prep: 01.26.2021
Parent Sample Id: 686125-004 — MS Sample Id: 686125-004 S — MSD Sample Id: 686125-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	338	198	552	108	525	93	90-110	5	20	mg/kg	01.27.2021 15:50	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3149582 — Matrix: Solid — Date Prep: 01.28.2021
MB Sample Id: 7720312-1-BLK — LCS Sample Id: 7720312-1-BKS — LCSD Sample Id: 7720312-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1040	104	1120	112	70-130	7	20	mg/kg	01.28.2021 12:36	
Diesel Range Organics (DRO)	<50.0	1000	935	94	1000	100	70-130	7	20	mg/kg	01.28.2021 12:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		109		108		70-130	%	01.28.2021 12:36
o-Terphenyl	131	**	102		110		70-130	%	01.28.2021 12:36

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3149582 — Matrix: Solid — Date Prep: 01.28.2021
MB Sample Id: 7720312-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.28.2021 12:15	

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 686081

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WSP USA

PLU 28 BS 707 H

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3149582 Matrix: Soil Date Prep: 01.28.2021
Parent Sample Id: 686305-021 MS Sample Id: 686305-021 S MSD Sample Id: 686305-021 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)	<50.0	999	1140	114	1180	118	70-130	3	20	mg/kg	01.28.2021 13:49	
Diesel Range Organics (DRO)	<50.0	999	1060	106	1100	110	70-130	4	20	mg/kg	01.28.2021 13:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		104		70-130	%	01.28.2021 13:49
o-Terphenyl	96		100		70-130	%	01.28.2021 13:49

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3149067 Matrix: Solid Date Prep: 01.26.2021
MB Sample Id: 7720055-1-BLK LCS Sample Id: 7720055-1-BKS LCSD Sample Id: 7720055-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.0985	99	70-130	3	35	mg/kg	01.26.2021 18:00	
Toluene	<0.00200	0.100	0.103	103	0.0969	97	70-130	6	35	mg/kg	01.26.2021 18:00	
Ethylbenzene	<0.00200	0.100	0.105	105	0.0964	96	71-129	9	35	mg/kg	01.26.2021 18:00	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.193	97	70-135	7	35	mg/kg	01.26.2021 18:00	
o-Xylene	<0.00200	0.100	0.104	104	0.0977	98	71-133	6	35	mg/kg	01.26.2021 18:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		96		70-130	%	01.26.2021 18:00
4-Bromofluorobenzene	104		103		97		70-130	%	01.26.2021 18:00

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A
Seq Number: 3149067 Matrix: Soil Date Prep: 01.26.2021
Parent Sample Id: 685783-040 MS Sample Id: 685783-040 S MSD Sample Id: 685783-040 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	0.0877	87	0.0779	78	70-130	12	35	mg/kg	01.26.2021 18:45	
Toluene	0.00372	0.101	0.0873	83	0.0730	69	70-130	18	35	mg/kg	01.26.2021 18:45	X
Ethylbenzene	<0.00201	0.101	0.0842	83	0.0678	68	71-129	22	35	mg/kg	01.26.2021 18:45	X
m,p-Xylenes	<0.00402	0.201	0.171	85	0.131	66	70-135	26	35	mg/kg	01.26.2021 18:45	X
o-Xylene	<0.00201	0.101	0.0895	89	0.0677	68	71-133	28	35	mg/kg	01.26.2021 18:45	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		97		70-130	%	01.26.2021 18:45
4-Bromofluorobenzene	98		100		70-130	%	01.26.2021 18:45

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: 686081

Page 1 of 1

Project Manager:	Korey Kennedy	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849 Email:		luis.delval@wsp.com; korey.kennedy@wsp.com

Work Order Comments

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

Project Name:	PLU 28 BS 707H	Turn Around	
Project Number:	AFE: DD.2017.01902.CAP.CMP.01	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.6/1.4	Thermometer ID		
Received Intact:	(Yes) No	IR-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	4	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	1/25/2021	1344	0.5'	1	X	X	X
SS02	S	1/25/2021	1353	0.5'	1	X	X	X
SS03	S	1/25/2021	1358	0.5'	1	X	X	X
SS04	S	1/25/2021	1405	0.5'	1	X	X	X

ANALYSIS REQUEST

Work Order Notes

Incident No.:
NAPP2036551506

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			1.26.21 1317	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Inter-Office Shipment

IOS Number : 77057

Date/Time:	01.26.2021	Created by:	Cloe Clifton	Please send report to:	Jessica Kramer
Lab# From:	**Carlsbad**	Delivery Priority:		Address:	1089 N Canal Street
Lab# To:	**Midland**	Air Bill No.:		E-Mail:	jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
686081-001	S	SS01	01.25.2021 13:44	SW8015MOD_NM	TPH by SW8015 Mod	02.01.2021	02.08.2021	JKR	GRO-DRO PHCC10C28	
686081-002	S	SS02	01.25.2021 13:53	SW8015MOD_NM	TPH by SW8015 Mod	02.01.2021	02.08.2021	JKR	GRO-DRO PHCC10C28	
686081-003	S	SS03	01.25.2021 13:58	SW8015MOD_NM	TPH by SW8015 Mod	02.01.2021	02.08.2021	JKR	GRO-DRO PHCC10C28	
686081-004	S	SS04	01.25.2021 14:05	SW8015MOD_NM	TPH by SW8015 Mod	02.01.2021	02.08.2021	JKR	GRO-DRO PHCC10C28	

Inter Office Shipment or Sample Comments:

Relinquished By: Cloe Clifton

Cloe Clifton

Date Relinquished: 01.26.2021

Received By: Jessica Kramer

Jessica Kramer

Date Received: 01.27.2021

Cooler Temperature: 0.3

Environment Testing Xenco

Eurofins Xenco, LLC

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 77057

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used :

Sent By: Cloe Clifton **Date Sent:** 01.26.2021 03.18 PM

Received By: Jessica Kramer **Date Received:** 01.27.2021 12.55 PM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**	
#5 *Custody Seals Signed and dated for Containers/coolers	**Yes**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

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

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: Jessica Kramer Date: 01.27.2021

Jessica Kramer

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.26.2021 01.17.00 PM

Work Order #: 686081

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**Yes**
#5 Custody Seals intact on sample bottles?	**Yes**
#6*Custody Seals Signed and dated?	**Yes**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**Yes**
#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: 01.26.2021

Checklist reviewed by: Jessica Kramer Date: 01.27.2021

Jessica Kramer

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-774-1
Laboratory Sample Delivery Group: TE012921011
Client Project/Site: PLU 28 BS 707H
Revision: 1

For:
WSP USA Inc.
2777 N. Stemmons Freeway
Suite 1600
Dallas, Texas 75207

Attn: Dan Moir

JKramer

Authorized for release by:
6/22/2021 3:37:30 PM

Jessica Kramer, Project Manager
(432)704-5440
jessica.kramer@eurofinset.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Laboratory Job ID: 890-774-1
SDG: TE012921011

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-774-1
Project/Site: PLU 28 BS 707H SDG: TE012921011

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Job ID: 890-774-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-774-1

REVISION

The report being provided is a revision of the original report sent on 6/8/2021. The report (revision 0) is being revised due to Per client email, Sample name change - SS01 to SS05, SS02 to SS06, SS03 to SS07

Receipt

The samples were received on 6/3/2021 4:26 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Client Sample ID: SS05

Date Collected: 06/03/21 12:20
Date Received: 06/03/21 16:26
Sample Depth: - 0.5

Lab Sample ID: 890-774-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 19:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 19:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 19:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 19:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 19:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 19:19	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*06/04/21 08:00*	*06/04/21 19:19*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*06/04/21 08:00*	*06/04/21 19:19*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 01:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 01:41	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 01:41	1
Total TPH	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 01:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*06/04/21 15:34*	*06/05/21 01:41*	*1*
o-Terphenyl	*110*		*70 - 130*	*06/04/21 15:34*	*06/05/21 01:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**31.1**		4.98		mg/Kg			06/07/21 14:46	1

Client Sample ID: SS06

Date Collected: 06/03/21 12:22
Date Received: 06/03/21 16:26
Sample Depth: - 0.5

Lab Sample ID: 890-774-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:39	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:39	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:39	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/04/21 08:00	06/04/21 19:39	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:39	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/04/21 08:00	06/04/21 19:39	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		06/04/21 08:00	06/04/21 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*06/04/21 08:00*	*06/04/21 19:39*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*06/04/21 08:00*	*06/04/21 19:39*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Client Sample ID: SS06

Date Collected: 06/03/21 12:22
Date Received: 06/03/21 16:26
Sample Depth: - 0.5

Lab Sample ID: 890-774-2

Matrix: Solid

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 02:44	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 02:44	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 02:44	1
Total TPH	<49.8	U	49.8		mg/Kg		06/04/21 15:34	06/05/21 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*06/04/21 15:34*	*06/05/21 02:44*	*1*
o-Terphenyl	*97*		*70 - 130*	*06/04/21 15:34*	*06/05/21 02:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.1**		4.95		mg/Kg			06/07/21 14:51	1

Client Sample ID: SS07

Date Collected: 06/03/21 12:25
Date Received: 06/03/21 16:26
Sample Depth: - 0.5

Lab Sample ID: 890-774-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:59	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:59	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:59	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		06/04/21 08:00	06/04/21 19:59	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/04/21 08:00	06/04/21 19:59	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/04/21 08:00	06/04/21 19:59	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		06/04/21 08:00	06/04/21 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*06/04/21 08:00*	*06/04/21 19:59*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/04/21 08:00*	*06/04/21 19:59*	*1*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 03:05	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 03:05	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 03:05	1
Total TPH	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 03:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*06/04/21 15:34*	*06/05/21 03:05*	*1*
o-Terphenyl	*93*		*70 - 130*	*06/04/21 15:34*	*06/05/21 03:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**26.2**		4.98		mg/Kg			06/07/21 15:06	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-774-1	SS05	119	109
890-774-2	SS06	118	103
890-774-3	SS07	118	101
LCS 880-3777/1-A	Lab Control Sample	115	104
LCSD 880-3777/2-A	Lab Control Sample Dup	112	104
MB 880-3777/5-A	Method Blank	88	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-774-1	SS05	115	110
890-774-1 MS	SS05	101	86
890-774-1 MSD	SS05	102	86
890-774-2	SS06	102	97
890-774-3	SS07	98	93
LCS 880-3811/2-A	Lab Control Sample	99	88
LCSD 880-3811/3-A	Lab Control Sample Dup	105	92
MB 880-3811/1-A	Method Blank	101	100

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3777/5-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3777

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 12:09	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/04/21 08:00	06/04/21 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*06/04/21 08:00*	*06/04/21 12:09*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/04/21 08:00*	*06/04/21 12:09*	*1*

Lab Sample ID: LCS 880-3777/1-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3777

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09657		mg/Kg		97	70 - 130		
Toluene			0.100	0.09386		mg/Kg		94	70 - 130		
Ethylbenzene			0.100	0.09879		mg/Kg		99	70 - 130		
m-Xylene & p-Xylene			0.200	0.2112		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1071		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-3777/2-A
Matrix: Solid
Analysis Batch: 3787

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3777

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09276		mg/Kg		93	70 - 130	4	35
Toluene			0.100	0.08908		mg/Kg		89	70 - 130	5	35
Ethylbenzene			0.100	0.09228		mg/Kg		92	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1962		mg/Kg		98	70 - 130	7	35
o-Xylene			0.100	0.09994		mg/Kg		100	70 - 130	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-3811/1-A
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3811

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1
Total TPH	<50.0	U	50.0		mg/Kg		06/04/21 15:34	06/05/21 00:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*06/04/21 15:34*	*06/05/21 00:39*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/04/21 15:34*	*06/05/21 00:39*	*1*

Lab Sample ID: LCS 880-3811/2-A
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3811

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	926.2		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1028		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: LCSD 880-3811/3-A
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3811

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	970.7		mg/Kg		97	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	1093		mg/Kg		109	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: 890-774-1 MS
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: SS05
Prep Type: Total/NA
Prep Batch: 3811

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	864.9		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	999	977.9		mg/Kg		94	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-774-1 MS
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: SS05
Prep Type: Total/NA
Prep Batch: 3811

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Lab Sample ID: 890-774-1 MSD
Matrix: Solid
Analysis Batch: 3802

Client Sample ID: SS05
Prep Type: Total/NA
Prep Batch: 3811

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	942.1		mg/Kg		92	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.8	U	998	985.4		mg/Kg		95	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*102*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3793/1-A
Matrix: Solid
Analysis Batch: 3853

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/07/21 13:09	1

Lab Sample ID: LCS 880-3793/2-A
Matrix: Solid
Analysis Batch: 3853

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	252.2		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-3793/3-A
Matrix: Solid
Analysis Batch: 3853

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	252.4		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

GC VOA

Prep Batch: 3777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-774-1	SS05	Total/NA	Solid	5035	
890-774-2	SS06	Total/NA	Solid	5035	
890-774-3	SS07	Total/NA	Solid	5035	
MB 880-3777/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-774-1	SS05	Total/NA	Solid	8021B	3777
890-774-2	SS06	Total/NA	Solid	8021B	3777
890-774-3	SS07	Total/NA	Solid	8021B	3777
MB 880-3777/5-A	Method Blank	Total/NA	Solid	8021B	3777
LCS 880-3777/1-A	Lab Control Sample	Total/NA	Solid	8021B	3777
LCSD 880-3777/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3777

GC Semi VOA

Analysis Batch: 3802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-774-1	SS05	Total/NA	Solid	8015B NM	3811
890-774-2	SS06	Total/NA	Solid	8015B NM	3811
890-774-3	SS07	Total/NA	Solid	8015B NM	3811
MB 880-3811/1-A	Method Blank	Total/NA	Solid	8015B NM	3811
LCS 880-3811/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3811
LCSD 880-3811/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3811
890-774-1 MS	SS05	Total/NA	Solid	8015B NM	3811
890-774-1 MSD	SS05	Total/NA	Solid	8015B NM	3811

Prep Batch: 3811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-774-1	SS05	Total/NA	Solid	8015NM Prep	
890-774-2	SS06	Total/NA	Solid	8015NM Prep	
890-774-3	SS07	Total/NA	Solid	8015NM Prep	
MB 880-3811/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3811/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3811/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-774-1 MS	SS05	Total/NA	Solid	8015NM Prep	
890-774-1 MSD	SS05	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-774-1	SS05	Soluble	Solid	DI Leach	
890-774-2	SS06	Soluble	Solid	DI Leach	
890-774-3	SS07	Soluble	Solid	DI Leach	
MB 880-3793/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

HPLC/IC

Analysis Batch: 3853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-774-1	SS05	Soluble	Solid	300.0	3793
890-774-2	SS06	Soluble	Solid	300.0	3793
890-774-3	SS07	Soluble	Solid	300.0	3793
MB 880-3793/1-A	Method Blank	Soluble	Solid	300.0	3793
LCS 880-3793/2-A	Lab Control Sample	Soluble	Solid	300.0	3793
LCSD 880-3793/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3793

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Client Sample ID: SS05
Date Collected: 06/03/21 12:20
Date Received: 06/03/21 16:26

Lab Sample ID: 890-774-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 19:19	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 01:41	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 14:46	CH	XEN MID

Client Sample ID: SS06
Date Collected: 06/03/21 12:22
Date Received: 06/03/21 16:26

Lab Sample ID: 890-774-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 19:39	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 02:44	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 14:51	CH	XEN MID

Client Sample ID: SS07
Date Collected: 06/03/21 12:25
Date Received: 06/03/21 16:26

Lab Sample ID: 890-774-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3777	06/04/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	3787	06/04/21 19:59	KL	XEN MID
Total/NA	Prep	8015NM Prep			3811	06/04/21 15:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3802	06/05/21 03:05	AM	XEN MID
Soluble	Leach	DI Leach			3793	06/04/21 09:46	CH	XEN MID
Soluble	Analysis	300.0		1	3853	06/07/21 15:06	CH	XEN MID

Laboratory References:
XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Laboratory: Eurofins Xenco, Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

XEN MID = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 28 BS 707H

Job ID: 890-774-1
SDG: TE012921011

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-774-1	SS05	Solid	06/03/21 12:20	06/03/21 16:26	- 0.5
890-774-2	SS06	Solid	06/03/21 12:22	06/03/21 16:26	- 0.5
890-774-3	SS07	Solid	06/03/21 12:25	06/03/21 16:26	- 0.5

API 3001545782
AFE DD.2017.01902.CAP.CMP.01

eurofins | Environment Testing Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Greene St
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(817)683-2503 Email:		Kalei.jennings@wsp.com, fatima.smith@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 28 BS 707H	Turn Around	☑ Routine ☐ Rush
Project Number:	TE012921011	Due Date:	
Project Location:	Eddy county	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Fatima Smith		
PO #:			

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:		T-WM-007
Cooler Custody Seals:	Yes / (No) N/A	Correction Factor:		-0.2
Sample Custody Seals:	Yes (No) N/A	Temperature Reading:		1.8
Total Containers:		Corrected Temperature:		1.6

ANALYSIS REQUEST

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	6/3/21	1220	0.5'		1		X	X	X	
SS02	S	6/3/21	1222	0.5'		1		X	X	X	
SS03	S	6/3/21	1225	0.5'		1		X	X	X	

890-774 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr 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 Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6:3:21 1626	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Xenco, Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-251 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-774-1
Address: 1211 W Florida Ave	Due Date Requested: 6/9/2021			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: PLU 28 BS 707H	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
			Preservation Code:								
SS01 (890-774-1)	6/3/21	12 20 Mountain		Solid			X	X	X	1	
SS02 (890-774-2)	6/3/21	12 22 Mountain		Solid			X	X	X	1	
SS03 (890-774-3)	6/3/21	12 25 Mountain		Solid			X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Cece Carpio 6.4.21	Date/Time:	Company	Received by:	Date/Time: 6-4-21 2:40 PM	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-774-1
SDG Number: TE012921011

Login Number: 774
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-774-1
SDG Number: TE012921011

Login Number: 774
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/04/21 02:45 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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 39584

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 39584
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	9/1/2021