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	NAPP2125143187
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Shelby Pennington	Contact Telephone 281-723-9353
Contact email shelby.pennington@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.10211 Longitude -103.82885
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 25 BD 127H	Site Type Production Well
Date Release Discovered 08/25/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
H	25	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 15.0	Volume Recovered (bbls) 5.0
	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, a leak developed on the hose that feeds the steel manifold that connects the frac pumps, causing fluids to release onto the pad. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2125143187
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? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

- ☒ The source of the release has been stopped.
- ☒ The impacted area has been secured to protect human health and the environment.
- ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 9/8/2021

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: Ramona Marcus Date: 9/12/2021

NAPP2125143187

Location:	**PLU 25 BD 127H**	
Spill Date:	**8/25/2021**	
Area 1		
Approximate Area =	4490.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	15.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**15.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**5.00**	**bbls**

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

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 47121
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	9/12/2021

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2125143187
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2125143187
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: 02/08/2022

email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2125143187
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 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 OCD 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 of 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: 02/08/2022

Email: adrian.baker@exxonmobil.com Telephone: 432-236-3808

ODC Only

Received by: Date:

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: Jennifer Nobui Date: 02/16/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

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

February 7, 2022

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

RE: Closure Request
PLU 25 BD 127H
Incident Number NAPP2125143187
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Poker Lake Unit (PLU) 25 Bushy Draw (BD) 127H (Site) located in Unit H, Section 25, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of produced water at the Site. Based on excavation activities and soil sample laboratory analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Number NAPP2125143187.

RELEASE BACKGROUND

On August 25, 2021, during frac operations, a leak developed on the hose that feeds the steel manifold that connects the frac pumps. Approximately 15 barrels (bbls) of produced water were released onto the caliche pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on September 8, 2021. The release was assigned Incident Number NAPP2125143187.

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 February 2021, WSP installed a soil boring (C-4498) located 0.7 miles west of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4498 was drilled to a depth of 109 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 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 109 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

During April 2021, WSP installed a soil boring (C-04500) utilizing a truck-mounted auger drill rig approximately 2.4 miles east of the Site. 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 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 at the borehole is greater than 110 feet. The borehole was properly abandoned with hydrated bentonite chips. The location of borehole C-04500 is provided on Figure 1.

In addition, the nearest USGS well (USGS 320643103465002) is located 2.8 miles northeast of the Site with a reported depth to water of 318 feet bgs, measured in 2012. The nearest NMOSE well (C 03781) is located 1.6 miles north of the Site with a reported depth to water of 325 feet bgs. The location of USGS well 320643103465002 and NMOSE well C 03871 are provided on Figure 1 and the Well Records are included in Attachment 1. Although the data points listed above are greater than NMOCD's preferred 0.5-mile radius from the Site, the consistent presence of non-water bearing lithology observed in boreholes located to the east and west of the Site, and with water well data to the north and northeast of the Site indicating a depth to water greater than 300 feet bgs, WSP proposes the number of distribution of data points is sufficient to estimate depth to groundwater at the Site as greater than 100 feet bgs.

The closest continuously flowing or significant watercourse to the Site is a wetland located approximately 378 feet 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 ACTIVITIES AND ANALYTICAL RESULTS

On November 5, 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 five preliminary assessment soil samples (SS01 through SS05) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of the impacted soil. Soil from the preliminary soil samples was 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, SS02, SS04, and SS05 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil sample SS03 indicated that TPH-GRO/TPH-DRO, TPH, and chloride concentrations exceeded the Closure Criteria. Based on elevated field screening activities and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

On December 28, 2021, WSP personnel returned to the Site to oversee delineation activities as indicated by field screening activities and laboratory analytical results for the preliminary soil samples.

Five potholes (PH01 through PH05) were advanced via track-mounted backhoe within the release extent to assess the vertical extent of impacted soil. Potholes PH01 through PH05 were advanced to a depth of 4 feet bgs. Potholes PH01, PH03, PH04, and PH05 were advanced at the SS01, SS02, SS04, and SS05 preliminary soil sample locations, respectively. Discrete delineation soil samples were collected from each pothole from depths ranging from 1-foot to 4 feet bgs. Soil from the

potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. Additionally, delineation samples SS06 through SS10 were collected from around the release extent from a depth of approximately 0.25 feet bgs to confirm the lateral extent of the release. The potholes and delineation soil sample locations are depicted on Figure 3. The delineation soil samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico. Photographic documentation was conducted during the Site visits. A photographic log is included in Attachment 3.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH05 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for delineation samples SS01 through SS10, collected around the release extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the most stringent Table 1 Closure Criteria.

EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Between December 28, 2021 and January 7, 2022, WSP personnel were at the Site to oversee excavation activities as indicated by field screening activities and laboratory analytical results for the preliminary soil samples.

Excavation activities were completed to remove impacted soil in the area surrounding preliminary soil sample SS03. Excavation activities were performed using a track-mounted backhoe and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation was completed to an approximate depth of 1.5 feet bgs.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the floor of the excavations. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS04, FS03A, and FS04A were collected from the floor of the excavation, from depths ranging from 1.5 feet to 1.65 feet bgs. Due to the shallow depth of the excavation, the soil samples represented the floor and sidewalls of the excavation. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above.

Laboratory analytical results for excavation floor samples FS01, FS02, FS03A, and FS04A, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for excavation floor samples FS03 and FS04 indicated that TPH-GRO/TPH-DRO and TPH

concentrations initially exceeded the Closure Criteria. Additional soil was removed from these areas and subsequent floor samples FS03A and FS04A were compliant. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4. The final excavation extent and excavation soil sample locations are presented on Figure 4.

The excavation measured approximately 760 square feet. A total of approximately 42 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was backfilled.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the August 25, 2021 release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, the release extent was laterally delineated to below the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further remediation was required. XTO backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions.

Initial response efforts and excavation of impacted soil have mitigated impacts at the Site. Depth to groundwater has been determined to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. WSP and XTO believe these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests no further action for Incident Number NAPP2125143187.

If you have any questions or comments, please do not hesitate to contact Ms. Aimee Cole at (720) 384-7365.

Sincerely,

WSP USA Inc.

Kalei Jennings
Consultant, Environmental Scientist

Aimee Cole
Sr. Consultant, Environmental Scientist

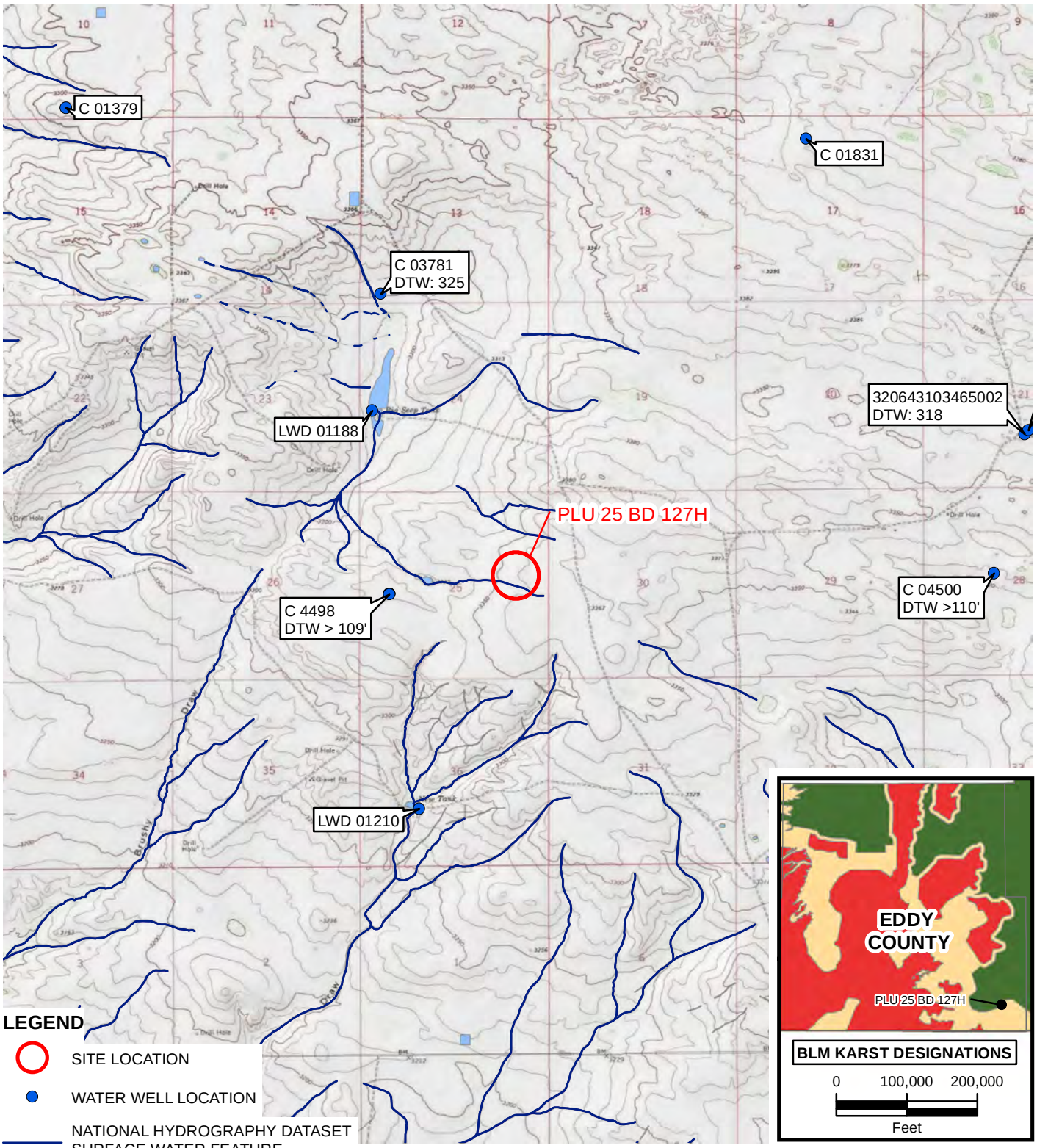
cc: Adrian Baker, XTO

Bureau of Land Management

Attachments:

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

FIGURES



LEGEND

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

DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBER NAPP2125143187

FIGURE 1
SITE LOCATION MAP
PLU 25 BD 127H
UNIT H SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\31403236.022.0129.09_PLU 25 BRUSHY DRAW 127H\MXD\31403236.022.0129.09_FIG01_SL_RECEPTOR_2021.mxd

IMAGE COURTESY OF ESRI

LEGEND

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

NOTE: INCIDENT NUMBER NAPP2125143187
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

0 100 200
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU 25 BD 127H
UNIT H SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\31403236.022.0129.09_PLU 25 BRUSHY DRAW 127H\MXD\31403236.022.0129.09_FIG02_PRELIMINARY_2022.mxd

IMAGE COURTESY OF ESRI

LEGEND

DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

0 100 200

Feet

N

NOTE: INCIDENT NUMBER NAPP2125143187
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
PLU 25 BD 127H
UNIT H SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\31403236.022.0129.09_PLU 25 BRUSHY DRAW 127H\MXD\31403236.022.0129.09_FIG03_DELINEATION_2022.mxd

LEGEND

FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

EXCAVATION EXTENT

IMAGE COURTESY OF ESRI

0 100 200

Feet

N

NOTE: INCIDENT NUMBER NAPP2125143187
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
PLU 25 BD 127H
UNIT H SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\31403236.022.0129.09_PLU 25 BRUSHY DRAW 127H\MXD\31403236.022.0129.09_FIG04_EXCAVATION_2022.mxd

TABLES

Table 1

Soil Analytical Results
PLU 25 BD 127H
Incident Number NAPP2125143187
XTO Energy
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Preliminary Soil Samples										
SS01	11/05/2021	0.5	<0.00199	<0.00398	50.6	<50.0	<50.0	50.6	50.6	3,930
SS02	11/05/2021	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	11,100
SS03	11/05/2021	0.5	<0.00198	0.00849	5,410	<49.8	357	**5,410**	**5,770**	**22,000**
SS04	11/05/2021	0.5	<0.00198	<0.00396	176	<50.0	64.1	176	240	2,400
SS05	11/05/2021	0.5	<0.00199	<0.00398	156	<49.8	<49.8	156	156	4,770
SS06	01/28/2022	0.25	<0.00199	<0.00398	69.2	<50.0	<50.0	69.2	69.2	235
SS07	01/28/2022	0.25	<0.00200	<0.00400	70.7	<50.0	<50.0	70.7	70.7	307
SS08	01/28/2022	0.25	<0.00200	<0.00401	79.3	<50.0	<50.0	79.3	79.3	378
SS09	12/28/2021	0.25	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	8.04
SS10	12/28/2021	0.25	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.97
Delineation Soil Samples										
PH01	12/28/2021	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	1,000
PH01A	12/28/2021	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	36.5
PH02	12/28/2021	1	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	1,590
PH02A	12/28/2021	4	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	27.5
PH03	12/28/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	4,210
PH03A	12/28/2021	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,070
PH04	12/28/2021	1	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,520
PH04A	12/28/2021	4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	293
PH05	12/28/2021	1	<0.00199	<0.00398	62.9	<50.0	<50.0	<50.0	<50.0	838
PH05A	12/28/2021	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	62.5

Table 1

Soil Analytical Results
PLU 25 BD 127H
Incident Number NAPP2125143187
XTO Energy
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Floor Samples										
FS01	12/28/2021	1.5	<0.00199	<0.00398	52.2	<50.0	<50.0	52.2	52.2	406
FS02	12/28/2021	1.5	<0.00198	<0.00397	210	<50.0	<50.0	210	210	1,470
FS03	12/28/2021	1.5	<0.00198	<0.00396	1,380	<50.0	<50.0	**1,380**	1,380	4,710
FS03A	01/07/2022	1.65	<0.00200	<0.00401	217	<50.0	<50.0	217	217	2,390
FS04	12/28/2021	1.5	<0.00199	<0.00398	1,290	<49.9	52.2	**1,290**	1,340	2,340
FS04A	01/07/2022	1.65	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	496

Notes

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - motor oil range organics
NMOCD - New Mexico Oil Conservation Division
NMAC - New Mexico Administrative Code
< - indicates result is less than the stated laboratory method practical quantitation limit
NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
Text - impacted soil was excavated

ATTACHMENT 1: **REFERENCED WELL RECORDS**

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

03/11/2021

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

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4498 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-4498Pod1.

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-4498

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'	1.96"	N
	LONGITUDE	-103°	50'	26.19"	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

NW SW NE Sec. 25 T25S R30E

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)
02/24/2021	02/24/2021	temporary well material	109	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	109	±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	34	34	Caliche, tan, no odor, no stain, gravel, dry	Y ✓ N	
34	40	6	sand/ cacliche, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
40	56	16	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
56	72	16	sandstone, low consolidation, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
72	79	7	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
79	109	30	sandstone, low - medium consolidation, tan, no odor, m-f grained, well sorted, m	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

~~METHOD~~ USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

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

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

Shane Eldridge

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 03/11/2021

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

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-4498- POD1

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

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

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

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

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

4) Date well plugging began: 03/02/2021 Date well plugging concluded: 03/02/2021

5) GPS Well Location: Latitude: 32 deg, 6 min, 1.96 sec
Longitude: -103 deg, 50 min, 26.19 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 109 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'	0-10' Hydrated Bentonite	Approx. 16 gallons	16 gallons	Augers	
10'-109'	10'-109' Drill Cuttings	Approx. 171 gallons	171 gallons	Boring	

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

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

03/11/2021

Date

Version: September 8, 2009
Page 2 of 2

2020-03-10_C-4498-POD1_OSE_Well Record and Log-forsign

Final Audit Report 2021-03-11

Created:	2021-03-11
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAq2m7g1wGV8cRoBzMugpPTk25-4ojFW8H

"2020-03-10_C-4498-POD1_OSE_Well Record and Log-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2021-03-11 - 7:17:39 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-03-11 - 7:18:18 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-03-11 - 7:29:33 PM GMT- IP address: 74.50.153.115

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-03-11 - 7:31:05 PM GMT - Time Source: server- IP address: 74.50.153.115

Agreement completed.
2021-03-11 - 7:31:05 PM GMT

COPY APPLICANT

OSE DIV MAR 11 2021 PM4:22

Adobe Sign

John R. D Antonio, Jr., P.E.
State Engineer

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

Trn Nbr: 682534
File Nbr: C 04500

Dec. 01, 2020

WSP USA
KOREY KENNEDY
820 MEGAN AVENUE UNIT B
RIFLE, CO 81650

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Andrew Dennis
(575)622-6521

Enclosure

explore

John R. D Antonio, Jr., P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 682534
File Nbr: C 04500

Dec. 01, 2020

XTO ENERGY INC
KYLE LITTRELL
6401 N HOLIDAY HILL DR
MIDLAND, TX 79707

Greetings:

Your approved copy of the above numbered permit to drill a well for non-consumptive purposes is enclosed. You must obtain an additional permit if you intend to use the water. It is your responsibility to provide the contracted well driller with a copy of the permit that must be made available during well drilling activities.

Carefully review the attached conditions of approval for all specific permit requirements.

* If use of this well is temporary in nature and the well will be plugged at the end of the well usage, the OSE must initially approve of the plugging. If plugging approval is not conditioned in this permit, the applicant must submit a Plugging Plan of Operations for approval prior to the well being plugged. The Plugging Record must be properly completed and submitted to the OSE within 30 days of the well plugging.

* If the final intended purpose and condition requires a well ID tag and meter installation, the applicant must immediately send a completed meter report form to this office.

* The well record and log must be submitted within 30 days of the completion of the well or if the attempt was a dry hole.

* This permit expires and will be cancelled if no well is drilled and/or a well log is not received by the date set forth in the conditions of approval.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us.

Sincerely,

Andrew Dennis
(575)622-6521

Enclosure

explore

File No. C-4500

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☒ Other(Describe): Environmental Sampling
☒ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date: November 18, 2020 Requested End Date: TBD

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Kyle Littrell	Name: Korey Kennedy
Contact or Agent: check here if Agent ☐ XTO Energy, Inc.	Contact or Agent: check here if Agent ☐ WSP USA
Mailing Address: 6401 N. Holiday Hill Dr.	Mailing Address: 820 Megan Avenue, Unit B
City: Midland	City: Rifle
State: Texas Zip Code: 79707	State: Colorado Zip Code: 81650
Phone: 970-317-1867 ☐ Home ☒ Cell Phone (Work):	Phone: (970) 456-2924 ☐ Home ☒ Cell Phone (Work):
E-mail (optional): kyle_littrell@xtoenergy.com	E-mail (optional): korey.kennedy@wsp.com

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.: C-4500	Trn. No.: 682534	Receipt No.: 42758
Trans Description (optional): C-4500 POD1		
Sub-Basin: CUB	PCW/LOG Due Date: 12/1/21	

2. **WELL(S)** Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

■ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range*) OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
BH01	-103.785209 -103° 47' 6.75"	32.101934 32° 6' 6.96"	SE/4 NW/4 SEC28 T25S R31E

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☐ Yes ■ No **If yes, how many**_____

Other description relating well to common landmarks, streets, or other:
INT NM-128 AND BUCK JACKSON RD, HEAD SW ON BUCK JACKSON RD AND FOLLOW FOR ~13.2 MI. TURN LEFT ONTO BUCKTHORN RD FOR ~0.9 MI. TURN RIGHT ONTO CROW RD FOR ~0.1 MI. TURN LEFT AND FOLLOW TO SITE (~1.4 MI).

Well is on land owned by: Bureau of Land Management

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. **Attached?** ☐ Yes ■ No
If yes, how many_____

Approximate depth of well (feet): 110	Outside diameter of well casing (inches): 2.25
Driller Name: Atkins Engineering Associate, Inc.	Driller License Number: 1249

3. **ADDITIONAL STATEMENTS OR EXPLANATIONS**

XTO Energy, Inc. respectfully requests access represented within the attached file to install (1) soil boring to assist with depth to water determination for incident file NRM2026238329 located at (32.10220, -103.78083) and additional incidents with 1/2 mile from the bore. Borings will be completed as a 2-inch inside diameter PVC wells. Monitoring wells are anticipated to be present for up to 2 years. Dry boreholes will be abandoned within 3 days of completion.

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-4500 | Trn No.: 682534

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory: ☐ Include a description of any proposed pump test, if applicable.	**Pollution Control and/or Recovery:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge. ☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	**Construction De-Watering:** ☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	**Mine De-Watering:** ☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ■ Include the reason for the monitoring well, and, ■ The duration of the planned monitoring.		**Ground Source Heat Pump:** ☐ Include a description of the geothermal heat exchange project, ☐ The number of boreholes for the completed project and required depths. ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Korey Kennedy
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Korey Kennedy
Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 1st day of December 20 20, for the State Engineer.

John R. D'Antonio Jr., P.E., State Engineer

By: Signature — Juan Hernandez, Print

Title: Water Resources Manager I
Print

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.: C-4500 | Trn No.: 682534

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

17-1A Depth of the well shall not exceed the thickness of the valley fill.

17-4 No water shall be appropriated and beneficially used under this permit.

17-6 The well authorized by this permit shall be plugged completely using the following method per Rules and Regulations Governing Well Driller Licensing, Construction, Repair and Plugging of Wells; Subsection C of 19.27.4.30 NMAC unless an alternative plugging method is proposed by the well owner and approved by the State Engineer upon completion of the permitted use. All pumping appurtenance shall be removed from the well prior to plugging. To plug a well, the entire well shall be filled from the bottom upwards to ground surface using a tremie pipe. The bottom of the tremie shall remain submerged in the sealant throughout the entire sealing process; other placement methods may be acceptable and approved by the state engineer. The well shall be plugged with an office of the state engineer approved sealant for use in the plugging of non-artesian wells. The well driller shall cut the casing off at least four (4) feet below ground surface and fill the open hole with at least two vertical feet of approved sealant. The driller must fill or cover any open annulus with sealant. Once the sealant has cured, the well driller or well owner may cover the seal with soil. A Plugging Report for said well shall be filed with the Office of the State Engineer in a District Office within 30 days of completion of the plugging.

17-7 The Permittee shall utilize the highest and best technology available to ensure conservation of water to the maximum extent practical.

Trn Desc: C 04500 POD1

File Number: C 04500
Trn Number: 682534

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

17-B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with 72-12-12 NMSA 1978. A licensed driller shall not be required for the construction of a well driven without the use of a drill rig, provided that the casing shall not exceed two and three-eighths (2 3/8) inches outside diameter.

17-C The well driller must file the well record with the State Engineer and the applicant within 30 days after the well is drilled or driven. It is the well owner's responsibility to ensure that the well driller files the well record.
The well driller may obtain the well record form from any District Office or the Office of the State Engineer website.

17-P The well shall be constructed, maintained, and operated to prevent inter-aquifer exchange of water and to prevent loss of hydraulic head between hydrogeologic zones.

17-Q The State Engineer retains jurisdiction over this permit.

17-R Pursuant to section 72-8-1 NMSA 1978, the permittee shall allow the State Engineer and OSE representatives entry upon private property for the performance of their respective duties, including access to the ditch or acequia to measure flow and also to the well for meter reading and water level measurement.

LOG The Point of Diversion C 04500 POD1 must be completed and the Well Log filed on or before 12/01/2021.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd: Date Rcvd. Corrected:
Formal Application Rcvd: 11/19/2020 Pub. of Notice Ordered:
Date Returned - Correction: Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed above.

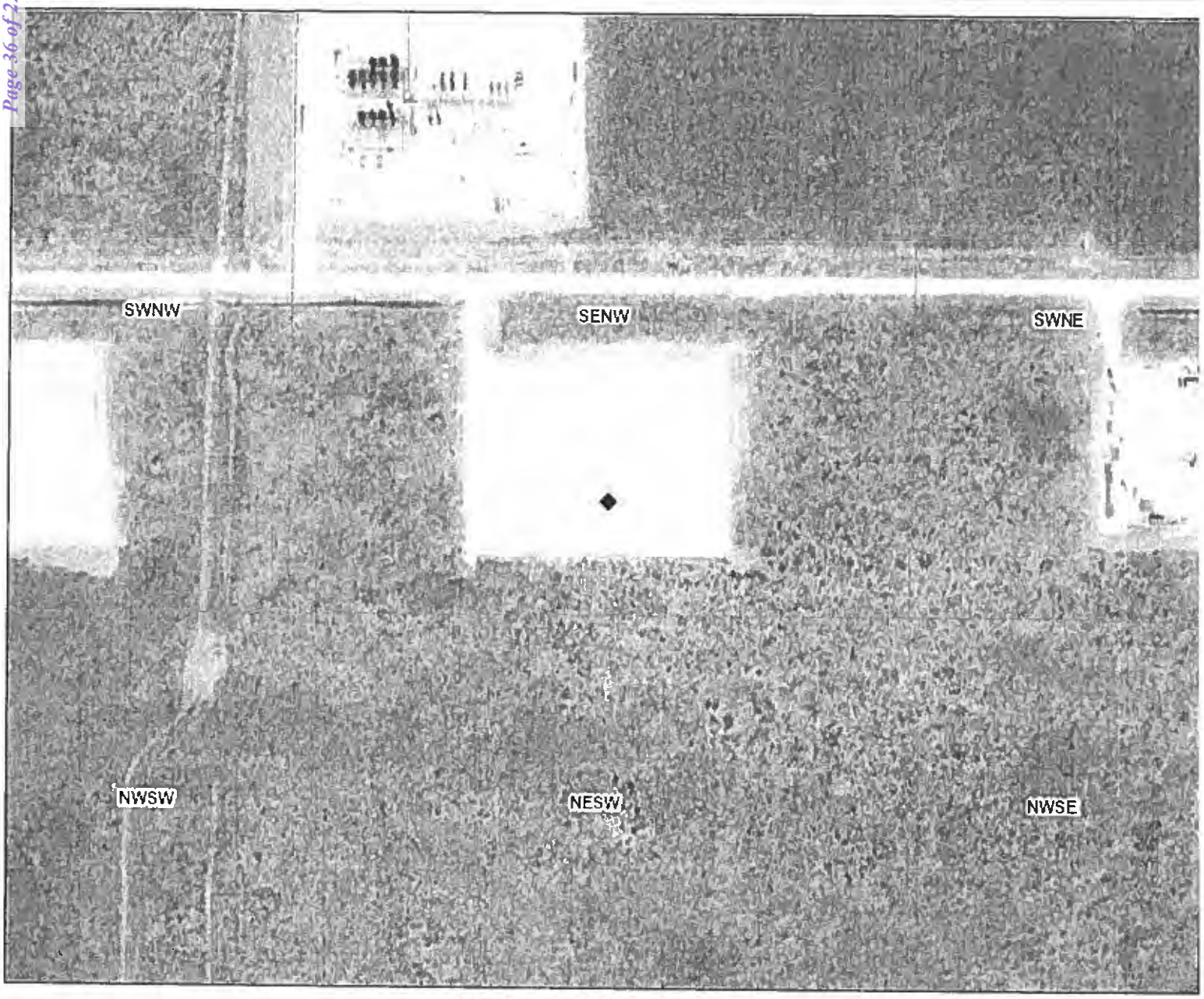
Witness my hand and seal this 01 day of De[illegible]

John R. D Antonio, Jr., P.E., State Engineer

By: JUAN HERNANDEZ

Trn Desc C 04500 POD1 File [illegible]4500

Trn Number: 682534



NEW MEXICO OFFICE OF THE STATE ENGINEER

Coordinates

UTM - NAD 83 (m) - Zone 13
Easting 614621.078
Northing 3552379.540

State Plane - NAD 83 (f) - Zone E
Easting 711065.446
Northing 401249.449

Degrees Minutes Seconds
Latitude 32 : 6 : 6.960000
Longitude -103 : 47 : 6.750000

Location pulled from Coordinate Search

N

1:4,514

ft
0 90 180 360

Image Info
Source: Maxar
Date: 11/2/2019
Resolution (m):0.46
Accuracy (m): 5

Spatial Information
OSE Administrative Area: Eddy
County: Eddy
Groundwater Basin: Carlsbad
Abstract Area:C
CUB
Sub-Basin: Lower Pecos-Red Bluff Reservoi
Land Grant: Not in Land Grant
Restrictions:
NA

PLSS Description
SWSESENW Qtr of Sec 28 of 025S 031E

POD Information
Owner: KYLE LITTRELL
File Number: C-4500-POD1
POD Status: NoData
Permit Status: NoData
Permit Use: NoData
Purpose: MON

Coord Search Location
WRAB Abstract Project Areas
Counties
Eddy County Parcels 2020

Hydro Survey Boundary
<all other values>
None
All
Partial
Hydro Survey Footprints

Sections
BLM Land Grant
PLSS Township
PLSS FirstDiv..
PLSS Second..

A DENNIS 12/1

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220-6292

In Reply Refer To:
3162.4 (NM-080)
NMLC0062140A

November 16, 2020

NM Office of the State Engineer
1900 W. Second St.
Roswell, NM 88201

Re: Poker Lake Unit 28 BS 703H
2310' FSL, 1920' FWL
Section 28, T25S-R31E
Eddy County, New Mexico

Gentlemen:

The above well location and the immediate area was impacted from a recent spill event. In order to fully delineate the impacted site, advanced soil boring will need to take place at approximately 110 feet below ground surface via a truck-mounted rig with hallow stem auger equipment. The boring will be secured and left open for 72 hours at which time XTO will assess for the presence or absence of groundwater. The Bureau of Land Management (landowner) authorizes the access of the pad to accomplish the full delineation of this site.

If you have any questions contact Crisha Morgan, at 575-234-5987.

Sincerely,

Crisha A. Morgan
Certified Environmental Protection Specialist

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No.
NMLC 0062140A

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
PLU 28 BS 703H

2. Name of Operator
XTO Energy, Inc.

9. API Well No.
30-015-45488

3a. Address
6401 Holiday Hill Road, Bldg 5
Midland, TX 79707

3b. Phone No. *(include area code)*
432-620-6724

10. Field and Pool or Exploratory Area
Bone Spring

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
Unit F-Sec 28-T25S-R31E / 32.101934, -103.785209

11. Country or Parish, State
Eddy County, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Surface Disturbance
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

XTO Energy, Inc. (XTO) respectfully requests access represented within the attached file to install one (1) soil boring at XTO's PLU 28 BS 703H well pad located at 32.101934, -103.785209 to assist with depth to water determination for incident number NRM2026238329 associated with the nearby PLU 28 BS 126H well located at 32.10220, -103.78083.

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*
Adrian Baker

Title SHE Coordinator

Signature

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
Title EPS
Date 11/16/20

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office CFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER
District 2 Office, Roswell, NM

John R. D'Antonio Jr., P.E.
State Engineer

1900 West Second Street
Roswell, New Mexico 88201
(575) 622-6521
FAX: (575) 623-8559

December 1, 2020

XTO Energy
c/o Korey Kennedy
WSP USA
820 Megan Avenue Unit B
Rifle, CO 81650

RE: *Well Plugging Plan of Operations for C-4500-POD1*

Greetings:

Enclosed is your copy of Well Plugging Plan of Operations for the above referenced project, which has been approved subject to the attached Specific Conditions of Approval. The following conditions of approval have been developed to ensure compliance with the Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells 19.27.4 NMAC adopted June 13, 2017, by the State Engineer.

Aggrieval of this permit, or any of the conditions of approval therein, suspends the permit. No plugging operations shall occur while a permit is aggrieved.

Sincerely,

Christopher Angel, PG
Water Resources Professional II
Water Resource Allocation Program

encl

WELL PLUGGING PLAN OF OPERATIONS

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP: ☐ Check here if proposing one plan for multiple monitoring wells on the same site and attaching WD-08m

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: C-4500 - POD1 (BH-01)

Name of well owner: XTO Energy , Inc. attn Kyle Littrell

Mailing address: 6401 Holiday Hill Dr. County: Midland

City: Midland State: Texas Zip code: 79707

Phone number: 432-682-8873 E-mail: kyle_littrell@xtoenergy.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Jackie D. Atkins (Atkins Engineering Associates, Inc.)

New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/2021

IV. WELL INFORMATION: ☐ **Check here if this plan describes method for plugging multiple monitoring wells on the same site and attach supplemental form WD-08m and skip to #2 in this section.**

Note: A copy of the existing Well Record for the well(s) to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: 32° deg, 6' min, 6.69" sec
Longitude: -103° deg, 47' min, 6.75" sec, NAD 83

2) Reason(s) for plugging well(s):

OSE DIT NOV 12 2020 PM

Soil boring to determine groundwater level

3) Was well used for any type of monitoring program? n/a If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? n/a If yes, provide additional detail, including analytical results and/or laboratory report(s):

5) Static water level: unknown feet below land surface / feet above land surface (circle one)

6) Depth of the well: 110 feet

7) Inside diameter of innermost casing: 2" inches.

8) Casing material: Temporary PVC SCH 40

9) The well was constructed with:

☐ an open-hole production interval, state the open interval: _____

☐ a well screen or perforated pipe, state the screened interval(s): _____

10) What annular interval surrounding the artesian casing of this well is cement-grouted? n/a

11) Was the well built with surface casing? no If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? n/a If yes, please describe:

12) Has all pumping equipment and associated piping been removed from the well? n/a If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

☐ **If plugging method differs between multiple wells on same site, a separate form must be completed for each method.**

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.

Also, if this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

The temporary 2" well material will be removed. If no water is encountered then drill cuttings will be used to (10) ten feet of land surface and plugged using hydrated bentonite. If ground water is encountered the boring will be plugged tremie from bottom to a slurry of Portland TYPE I/II Neat cement in lifts

2) Will well head be cut-off below land surface after plugging? n/a

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe from the cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: 287

4) Type of Cement proposed: Type I/II Neat Cement

5) Proposed cement grout mix: <6.0 gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____ batch-mixed and delivered to the site

X mixed on site

7) Grout additives requested, and percent by dry weight relative to cement:

N/A

8) Additional notes and calculations:

N/A

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

Volumes calculated on an up to an approximate 8" boring.

VIII. SIGNATURE:

I, Korey Kennedy, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

Korey Kennedy — Signature of Applicant

11/19/2020 — Date

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

RECEIVED OSE DIT NOV 25 2020 PM 1:23

✓ Approved subject to the attached conditions.

_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this 1st day of December, 2020

John R. D'Antonio Jr. P.E., New Mexico State Engineer

By: _____

Christopher Angel, PG

Water Resource Professional II

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)	N/A	N/A	0
Bottom of proposed interval of grout placement (ft bgl)	N/A	N/A	110
Theoretical volume of grout required per interval (gallons)	N/A	N/A	287
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement	N/A	N/A	<6.0
Mixed on-site or batch-mixed and delivered?	N/A	N/A	On-Site
Grout additive 1 requested	N/A	N/A	N/A
Additive 1 percent by dry weight relative to cement	N/A	N/A	N/A
Grout additive 2 requested	N/A	N/A	N/A
Additive 2 percent by dry weight relative to cement	N/A	N/A	N/A

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)	N/A	N/A	0
Bottom of proposed sealant of grout placement (ft bgl)	N/A	N/A	10
Theoretical volume of sealant required per interval (gallons)	N/A	N/A	26
Proposed abandonment sealant (manufacturer and trade name)	N/A	N/A	Bariod Hole Plug

Specific Conditions of C-4500-POD1

1) If groundwater is **not** encountered the borehole can be filled with drill cuttings up to 10 feet below ground surface. From 10 feet below ground surface to ground surface the borehole will be filled with bentonite. Bentonite chips shall be hydrated with 5 gallons of water per 50 pound sack.

2) If groundwater is encountered, a Type I/II neat Portland cement slurry with no more than 6.0 gallons water per 94-pound sack of Portland cement is approved.

   a) Grout shall be tremied from the bottom up.

3) A completed Plugging Record form shall be submitted no later than 30 days after completion of the plugging.

4) Before any attempts are made to plug this well, the O.S.E. District II Office shall be notified 48 hours in advance of the anticipated schedule for plugging, so that an O.S.E. representative has the opportunity to witness the procedures, if deemed necessary.

5) Any deviation from this plan must obtain an approved variance from this office prior to implementation.

6) Aggrieval of this permit, or any of the conditions of approval therein, suspends the permit. No plugging operations shall occur while a permit is aggrieved.

Witness my hand and seal this 1st day of December A.D., 2020

John R. D'Antonio Jr., P.E., State Engineer

By: _____
Christopher Angel, PG
Water Resources Professional II

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH01	Date: 4/20/2021
	Site Name: PLU 28 BS 126H	
	RP or Incident Number: NRM2026238329	
	LTE Job Number: TE012920137	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By SL	Method: Hollow Stem Auguer

Lat/Long: 32.101695,-103.785385	Field Screening: N/A	Hole Diameter: 8"	Total Depth: 110.3'

Comments: No field screening, only logged lithology, well screened from 90.3' - 110.3'

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	CCHE	0-1' Caliche, no odor, no stain, tan, light-brown
							SP-SM	1'-3' Sand, no odor, no stain, m-f, well sorted, brown, trace silt, low consolidation
						5	SP-SC	3'-7' Sandy clay, no odor, no stain, m-f, brown, well sorted, low plasticity, cohesive
						10		7'-23' Caliche, no stain, no odor, tan, light brown sand, m-f grained, poorly sorted, low consolidation
						15		
						20	CCHE	-16'-23' caliche gravel, large
								23'-110' sand, brown, no odor, no stain, fine grained, well sorted, low consolidation
						25		
						30		
						35		
						40		
						45		
						50		
						55		
						60	SP	
						65		
						70		
						75		
						80		
						85		
						90		
						95		
						100		
						105		
						110		
						115		TD @ 110.3'
						120		

National Water Information System: Web Interface

USGS Water Resources (Cooperator Access) Data Category: Site Information Geographic Area: United States GO

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

USGS 320643103465002 25S.31E.21.413314A

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°06'46.0", Longitude 103°46'56.3" NAD83
Eddy County, New Mexico , Hydrologic Unit 13070001
Well depth: 400 feet
Land surface altitude: 3,374.00 feet above NGVD29.
Well completed in "Pecos River Basin alluvial aquifer" (N100PCSRVR) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-02-17	2013-01-17	2
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

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

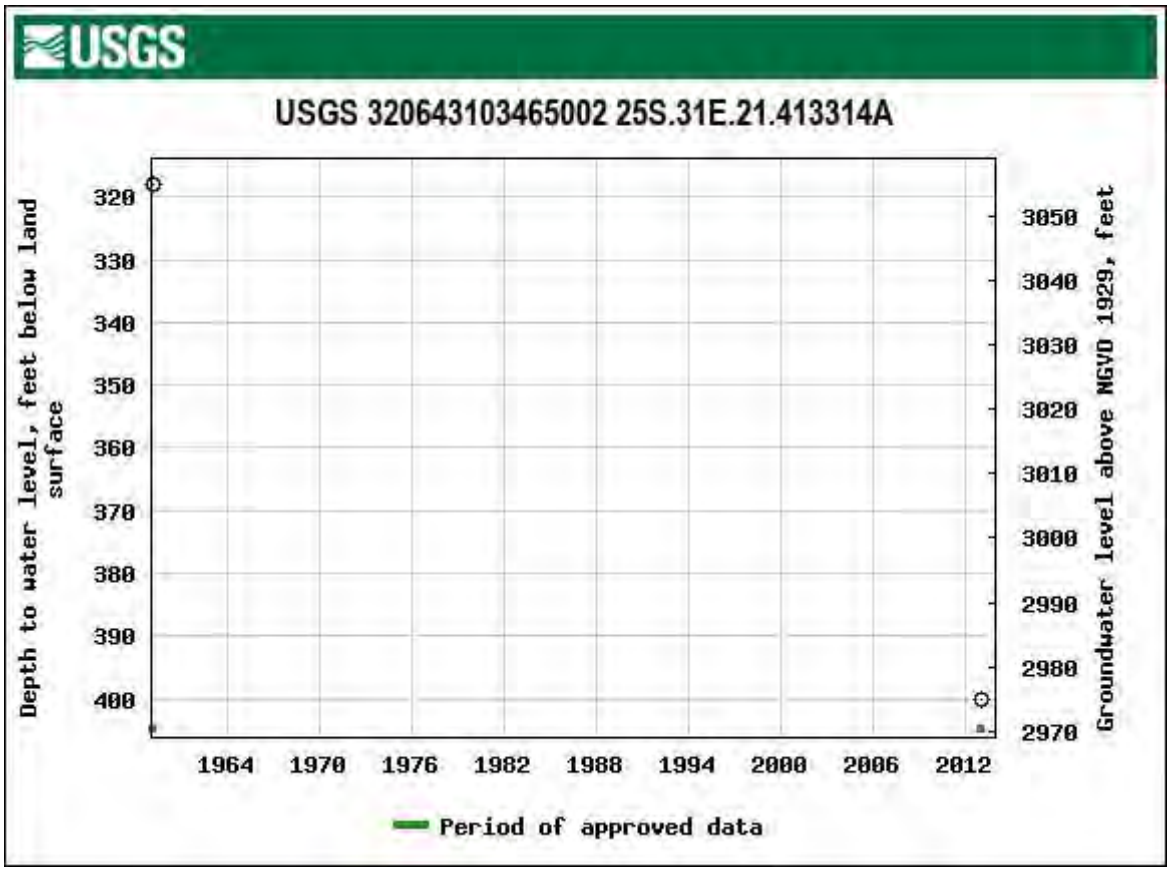
---

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms

Subscribe for system changes
News

Title: NWIS Site Information for USA: Site Inventory
URL: https://waterdata.usgs.gov/nwis/inventory?agency_code=USGS&site_no=320643103465002

Page Contact Information: New Mexico Water Data Support Team
Page Last Modified: 2021-10-06 08:45:24 EDT
0.29 0.28 sdww01


USGS
USGS 320643103465002 25S.31E.21.413314A
Depth to water level, feet below land surface
320
330
340
350
360
370
380
390
400
Groundwater level above NGVD 1929, feet
3050
3040
3030
3020
3010
3000
2990
2980
2970
1964
1970
1976
1982
1988
1994
2000
2006
2012
Period of approved data

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 03781 **Subbasin:** CUB **Cross Reference:** -

Primary Purpose: EXP EXPLORATION

Primary Status: PMT PERMIT

Total Acres: **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Agent: ATKINS ENGR ASSOC INC

Contact: CHRIS CORTEZ

Owner: BOPCO, L.P.

Contact: BRIAN PREGGER

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	555114	EXPL	2014-11-14	PMT	LOG	C 03781	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03781 POD1		Artesian	3	3	3	13	25S	30E	609306	3554761	1/3 MILE W. OF BUCK JACKSON RD

New Mexico Office of the State Engineer
Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
	C 03781 POD1	3	3	3	13	25S	30E	609306	3554761

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

Driller Name:

Drill Start Date: 01/08/2015 **Drill Finish Date:** 01/10/2015 **Plug Date:**

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

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

Casing Size: 8.63 **Depth Well:** 720 feet **Depth Water:** 325 feet

Water Bearing Stratifications:	Top	Bottom	Description
	200	370	Sandstone/Gravel/Conglomerate
	370	390	Sandstone/Gravel/Conglomerate
	390	410	Sandstone/Gravel/Conglomerate
	410	440	Sandstone/Gravel/Conglomerate
	440	460	Shale/Mudstone/Siltstone
	460	470	Shale/Mudstone/Siltstone
	470	490	Shale/Mudstone/Siltstone
	490	500	Shale/Mudstone/Siltstone
	500	510	Sandstone/Gravel/Conglomerate
	510	530	Shale/Mudstone/Siltstone
	530	660	Shale/Mudstone/Siltstone
	660	690	Shale/Mudstone/Siltstone
	690	700	Shale/Mudstone/Siltstone
	700	720	Shale/Mudstone/Siltstone

Casing Perforations:	Top	Bottom
	340	720

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOGS

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: **PH01**		Date: **12/28/2021**	
Site Name: **PLU 25 BS 127H**			
RP or Incident Number **NAPP2125143187**			
WSP Job Number: **31403236.022.0129 Task 09.02**			
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: PB	Method: Backhoe
Lat/Long: **32.10211, -103.82885**	Field Screening: Hach chloride strips, PID	Hole Diameter: N/A	Total Depth: **2 feet**

Comments: All chloride field screenings include a 40% correction factor
M-moist; D-dry; Y-yes; N-no; SAA- same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	1,602	0.2	N	PH01	1	1	CCHE	CALICHE, TAN, DRY, COARSE GRAINED, POORLY SORTED, TRACE H/C ODOR
D	<162.4	0.3	N	PH01A	2	2	SP-SC	SAND, BROWN, DRY,FINE GRAINED, MODERATLY SORTED, ABUNDANT SILT AND CLAY CONTENT, NO STAIN OR ODOR

Total Depth @ 2 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: **PH02**			Date: **12/28/2021**
Site Name: **PLU 25 BS 127H**			
RP or Incident Number **NAPP2125143187**			
WSP Job Number: **31403236.022.0129 Task 09.02**			
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: PB	Method: Backhoe
Lat/Long: **32.10211, -103.82885**	Field Screening: Hach chloride strips, PID	Hole Diameter: N/A	Total Depth: **4 feet**

Comments: All chloride field screenings include a 40% correction factor
M-moist; D-dry; Y-yes; N-no; SAA- same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	3,450	0.0	N	PH02	1	1	SP-SC	SAND, BROWN, DRY,MED-FINE GRAIN, POORLY SORTED, ABUNDANT CALICHE GRAVEL, NO STAIN OR ODOR
D	2,442.4	0.1	N	PH02A	2	2	SP-SC	SAA
D	<162.4	0.0	N	PH02B	4	4	CCHE	CALICHE, TAN-WHITE, DRY, COARSE GRAIN, NO STAIN OR ODOR

Total Depth @ 4 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: **PH03**	Date: **12/28/2021**		
Site Name: **PLU 25 BS 127H**			
RP or Incident Number **NAPP2125143187**			
WSP Job Number: **31403236.022.0129 Task 09.02**			
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: PB	Method: Backhoe	
Lat/Long: **32.10211, -103.82885**	Field Screening: Hach chloride strips, PID	Hole Diameter: N/A	Total Depth: **2 feet**

Comments: All chloride field screenings include a 40% correction factor
M-moist; D-dry; Y-yes; N-no; SAA- same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	<162.4	0.1	N	PH03	1	1	SP-SC	SAND, BROWN, DRY,MED-FINE GRAIN, POORLY SORTED, ABUNDANT CALICHE GRAVEL, NO STAIN, TRACE ODOR
D	700.0	0.1	N	PH03A	2	2	SP-SC	SAA

Total Depth @ 2 ft bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: **PH04**		Date: **12/28/2021**	
Site Name: **PLU 25 BS 127H**			
RP or Incident Number **NAPP2125143187**			
WSP Job Number: **31403236.022.0129 Task 09.02**			
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: PB	Method: Backhoe
Lat/Long: **32.10211, -103.82885**	Field Screening: Hach chloride strips, PID	Hole Diameter: N/A	Total Depth: **4 feet**

Comments: All chloride field screenings include a 40% correction factor
M-moist; D-dry; Y-yes; N-no; SAA- same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	2,368.8	0.0	N	PH04	1	1	CCHE	CALICHE, TAN-WHITE, DRY, COARSE GRAIN, NO STAIN TRACE ODOR
D	464.8	0.1	N	PH04A	2	2	CCHE	SAA, TRACE SAND
D	414	0.0	N	PH04B	4	4	CCHE	SAA, NO SAND

Total Depth @ 4 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: **PH05**		Date: **12/28/2021**	
Site Name: **PLU 25 BS 127H**			
RP or Incident Number **NAPP2125143187**			
WSP Job Number: **31403236.022.0129 Task 09.02**			
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: PB	Method: Backhoe
Lat/Long: **32.10211, -103.82885**	Field Screening: Hach chloride strips, PID	Hole Diameter: N/A	Total Depth: **2 feet**

Comments: All chloride field screenings include a 40% correction factor
M-moist; D-dry; Y-yes; N-no; SAA- same as above

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	1,786.4	0.0	N	PH05	1	1	CCHE	CALICHE, TAN-WHITE, DRY, ABUNDANT COARSE GRAIN SAND NO STAIN, TRACE ODOR
D	<162.4	0.0	N	PH05A	2	2	CCHE	SAA

Total Depth @ 2 ft bgs

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 25 BD 127H EDDY COUNTY, NEW MEXICO	NAPP2125143187

Photo No.	Date
1	November 05, 2021

View of release extent during initial site assessment

Photo No.	Date
2	November 05, 2021

View of release extent during initial site assessment

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 25 BD 127H EDDY COUNTY, NEW MEXICO	NAPP2125143187

Photo No.	Date
3	December 28, 2021

View of delineation activities

Photo No.	Date
4	December 28, 2021

View of excavation activities near pothole PH03

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: 890-1548-1
Laboratory Sample Delivery Group: 31403236.022.0129
Client Project/Site: PLU 25 BD 127

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
11/15/2021 3:48:30 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 25 BD 127

Laboratory Job ID: 890-1548-1
SDG: 31403236.022.0129

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

Job ID: 890-1548-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1548-1

Receipt
The samples were received on 11/8/2021 4:15 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 1.4°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
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11991 and analytical batch 880-11994 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-1548-1) and (890-1557-A-1-F). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-11991/1-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-12129 and analytical batch 880-12200 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

Client Sample ID: SS01

Lab Sample ID: 890-1548-1
Matrix: Solid
Date Collected: 11/05/21 12:34
Date Received: 11/08/21 16:15
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 12:47	1
Toluene	<0.00199	U F1	0.00199		mg/Kg		11/11/21 12:48	11/15/21 12:47	1
Ethylbenzene	<0.00199	U F1	0.00199		mg/Kg		11/11/21 12:48	11/15/21 12:47	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398		mg/Kg		11/11/21 12:48	11/15/21 12:47	1
o-Xylene	<0.00199	U F1	0.00199		mg/Kg		11/11/21 12:48	11/15/21 12:47	1
Xylenes, Total	<0.00398	U F1	0.00398		mg/Kg		11/11/21 12:48	11/15/21 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/11/21 12:48*	*11/15/21 12:47*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*11/11/21 12:48*	*11/15/21 12:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**50.6**		50.0		mg/Kg			11/11/21 15:24	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		11/11/21 08:22	11/11/21 16:48	1
Diesel Range Organics (Over C10-C28)	**50.6**		50.0		mg/Kg		11/11/21 08:22	11/11/21 16:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/11/21 08:22	11/11/21 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*11/11/21 08:22*	*11/11/21 16:48*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*11/11/21 08:22*	*11/11/21 16:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3930**		25.1		mg/Kg			11/14/21 02:43	5

Client Sample ID: SS02

Lab Sample ID: 890-1548-2
Matrix: Solid
Date Collected: 11/05/21 12:37
Date Received: 11/08/21 16:15
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 13:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 13:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 13:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/11/21 12:48	11/15/21 13:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/11/21 12:48	11/15/21 13:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/11/21 12:48	11/15/21 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*11/11/21 12:48*	*11/15/21 13:08*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

Client Sample ID: SS02 Lab Sample ID: 890-1548-2

Date Collected: 11/05/21 12:37 **Matrix: Solid**
Date Received: 11/08/21 16:15
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*11/11/21 12:48*	*11/15/21 13:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			11/11/21 15:24	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		11/11/21 08:22	11/11/21 17:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		11/11/21 08:22	11/11/21 17:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/11/21 08:22	11/11/21 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*11/11/21 08:22*	*11/11/21 17:09*	*1*
o-Terphenyl	*127*		*70 - 130*	*11/11/21 08:22*	*11/11/21 17:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11100**		49.7	mg/Kg			11/14/21 02:48	10

Client Sample ID: SS03 Lab Sample ID: 890-1548-3

Date Collected: 11/05/21 12:42 **Matrix: Solid**
Date Received: 11/08/21 16:15
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		11/11/21 12:48	11/15/21 13:28	1
Toluene	<0.00198	U	0.00198	mg/Kg		11/11/21 12:48	11/15/21 13:28	1
Ethylbenzene	**0.00242**		0.00198	mg/Kg		11/11/21 12:48	11/15/21 13:28	1
m-Xylene & p-Xylene	**0.00396**		0.00396	mg/Kg		11/11/21 12:48	11/15/21 13:28	1
o-Xylene	**0.00211**		0.00198	mg/Kg		11/11/21 12:48	11/15/21 13:28	1
Xylenes, Total	**0.00607**		0.00396	mg/Kg		11/11/21 12:48	11/15/21 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*	*S1-*	*70 - 130*	*11/11/21 12:48*	*11/15/21 13:28*	*1*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*11/11/21 12:48*	*11/15/21 13:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00849**		0.00396	mg/Kg			11/15/21 14:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**5770**		49.8	mg/Kg			11/11/21 15:24	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

Client Sample ID: SS03

Lab Sample ID: 890-1548-3
Matrix: Solid
Date Collected: 11/05/21 12:42
Date Received: 11/08/21 16:15
Sample Depth: 0.5

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		11/11/21 08:22	11/11/21 17:30	1
Diesel Range Organics (Over C10-C28)	**5410**		49.8		mg/Kg		11/11/21 08:22	11/11/21 17:30	1
Oil Range Organics (Over C28-C36)	**357**		49.8		mg/Kg		11/11/21 08:22	11/11/21 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*11/11/21 08:22*	*11/11/21 17:30*	*1*
o-Terphenyl	*99*		*70 - 130*	*11/11/21 08:22*	*11/11/21 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22000**		248		mg/Kg			11/14/21 03:03	50

Client Sample ID: SS04

Lab Sample ID: 890-1548-4
Matrix: Solid
Date Collected: 11/05/21 12:44
Date Received: 11/08/21 16:15
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 13:49	1
Toluene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 13:49	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 13:49	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		11/11/21 12:48	11/15/21 13:49	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		11/11/21 12:48	11/15/21 13:49	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		11/11/21 12:48	11/15/21 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*11/11/21 12:48*	*11/15/21 13:49*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*11/11/21 12:48*	*11/15/21 13:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			11/15/21 14:12	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**240**		50.0		mg/Kg			11/11/21 15:24	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		11/11/21 08:22	11/11/21 17:51	1
Diesel Range Organics (Over C10-C28)	**176**		50.0		mg/Kg		11/11/21 08:22	11/11/21 17:51	1
Oil Range Organics (Over C28-C36)	**64.1**		50.0		mg/Kg		11/11/21 08:22	11/11/21 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*11/11/21 08:22*	*11/11/21 17:51*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

Client Sample ID: SS04 Lab Sample ID: 890-1548-4

Date Collected: 11/05/21 12:44 **Matrix: Solid**
Date Received: 11/08/21 16:15
Sample Depth: 0.5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*70 - 130*	*11/11/21 08:22*	*11/11/21 17:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2400**		24.8	mg/Kg			11/14/21 03:07	5

Client Sample ID: SS05 Lab Sample ID: 890-1548-5

Date Collected: 11/05/21 12:48 **Matrix: Solid**
Date Received: 11/08/21 16:15
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		11/11/21 12:48	11/15/21 14:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/11/21 12:48	11/15/21 14:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/11/21 12:48	11/15/21 14:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/11/21 12:48	11/15/21 14:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/11/21 12:48	11/15/21 14:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/11/21 12:48	11/15/21 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*11/11/21 12:48*	*11/15/21 14:10*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*11/11/21 12:48*	*11/15/21 14:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			11/15/21 14:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**156**		49.8	mg/Kg			11/11/21 15:24	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		11/11/21 08:22	11/11/21 18:12	1
Diesel Range Organics (Over C10-C28)	**156**		49.8	mg/Kg		11/11/21 08:22	11/11/21 18:12	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/11/21 08:22	11/11/21 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*11/11/21 08:22*	*11/11/21 18:12*	*1*
o-Terphenyl	*120*		*70 - 130*	*11/11/21 08:22*	*11/11/21 18:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4770**		25.0	mg/Kg			11/14/21 03:12	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

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)										
890-1548-1	SS01	98	99										
890-1548-1 MS	SS01	91	95										
890-1548-1 MSD	SS01	98	99										
890-1548-2	SS02	101	102										
890-1548-3	SS03	67 S1-	123										
890-1548-4	SS04	103	114										
890-1548-5	SS05	98	109										
LCS 880-12021/1-A	Lab Control Sample	90	94										
LCSD 880-12021/2-A	Lab Control Sample Dup	94	95										
MB 880-12021/5-A	Method Blank	109	98										

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)										
890-1548-1	SS01	123	141 S1+										
890-1548-2	SS02	118	127										
890-1548-3	SS03	105	99										
890-1548-4	SS04	88	91										
890-1548-5	SS05	110	120										
890-1557-A-1-D MS	Matrix Spike	117	118										
890-1557-A-1-E MSD	Matrix Spike Duplicate	118	119										
LCS 880-11991/2-A	Lab Control Sample	79	84										
LCSD 880-11991/3-A	Lab Control Sample Dup	89	96										
MB 880-11991/1-A	Method Blank	121	143 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12021/5-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 12021

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/11/21 12:48	11/15/21 12:25	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/11/21 12:48	11/15/21 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*11/11/21 12:48*	*11/15/21 12:25*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*11/11/21 12:48*	*11/15/21 12:25*	*1*

Lab Sample ID: LCS 880-12021/1-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 12021

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08974		mg/Kg		90	70 - 130		
Toluene			0.100	0.07855		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.08329		mg/Kg		83	70 - 130		
m-Xylene & p-Xylene			0.200	0.1603		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.08127		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-12021/2-A
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 12021

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08682		mg/Kg		87	70 - 130	3	35
Toluene			0.100	0.08159		mg/Kg		82	70 - 130	4	35
Ethylbenzene			0.100	0.08606		mg/Kg		86	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1659		mg/Kg		83	70 - 130	3	35
o-Xylene			0.100	0.08365		mg/Kg		84	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-1548-1 MS
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 12021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.101	0.07122		mg/Kg		71	70 - 130		
Toluene	<0.00199	U F1	0.101	0.06549	F1	mg/Kg		65	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

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

Lab Sample ID: 890-1548-1 MS
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 12021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1	0.101	0.06525	F1	mg/Kg		65	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1260	F1	mg/Kg		63	70 - 130
o-Xylene	<0.00199	U F1	0.101	0.06337	F1	mg/Kg		63	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-1548-1 MSD
Matrix: Solid
Analysis Batch: 12220

Client Sample ID: SS01
Prep Type: Total/NA
Prep Batch: 12021

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.08385		mg/Kg		84	70 - 130	16	35
Toluene	<0.00199	U F1	0.100	0.07510		mg/Kg		75	70 - 130	14	35
Ethylbenzene	<0.00199	U F1	0.100	0.07458		mg/Kg		75	70 - 130	13	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1436		mg/Kg		72	70 - 130	13	35
o-Xylene	<0.00199	U F1	0.100	0.07240		mg/Kg		72	70 - 130	13	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 880-11991/1-A
Matrix: Solid
Analysis Batch: 11994

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 11991

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		11/11/21 08:22	11/11/21 09:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/11/21 08:22	11/11/21 09:47	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/11/21 08:22	11/11/21 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*11/11/21 08:22*	*11/11/21 09:47*	*1*
o-Terphenyl	*143*	*S1+*	*70 - 130*	*11/11/21 08:22*	*11/11/21 09:47*	*1*

Lab Sample ID: LCS 880-11991/2-A
Matrix: Solid
Analysis Batch: 11994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11991

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1281		mg/Kg		128	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1011		mg/Kg		101	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

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

Lab Sample ID: LCS 880-11991/2-A
Matrix: Solid
Analysis Batch: 11994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 11991

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: LCSD 880-11991/3-A
Matrix: Solid
Analysis Batch: 11994

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 11991

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1216		mg/Kg		122	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	943.3		mg/Kg		94	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: 890-1557-A-1-D MS
Matrix: Solid
Analysis Batch: 11994

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 11991

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	997	1600	F1	mg/Kg		160	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1097		mg/Kg		106	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: 890-1557-A-1-E MSD
Matrix: Solid
Analysis Batch: 11994

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 11991

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	<49.9	U F1	998	1611	F1	mg/Kg		161	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1109		mg/Kg		107	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	119		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12129/1-A
Matrix: Solid
Analysis Batch: 12200

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			11/14/21 01:05	1

Lab Sample ID: LCS 880-12129/2-A
Matrix: Solid
Analysis Batch: 12200

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	247.4		mg/Kg		99	90 - 110		

Lab Sample ID: LCSD 880-12129/3-A
Matrix: Solid
Analysis Batch: 12200

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	249.3		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 890-1547-A-6-J MS
Matrix: Solid
Analysis Batch: 12200

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	191	F1	249	408.1	F1	mg/Kg		87	90 - 110		

Lab Sample ID: 890-1547-A-6-K MSD
Matrix: Solid
Analysis Batch: 12200

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	191	F1	249	416.5		mg/Kg		91	90 - 110	2	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

GC VOA

Prep Batch: 12021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Total/NA	Solid	5035	
890-1548-2	SS02	Total/NA	Solid	5035	
890-1548-3	SS03	Total/NA	Solid	5035	
890-1548-4	SS04	Total/NA	Solid	5035	
890-1548-5	SS05	Total/NA	Solid	5035	
MB 880-12021/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12021/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12021/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1548-1 MS	SS01	Total/NA	Solid	5035	
890-1548-1 MSD	SS01	Total/NA	Solid	5035	

Analysis Batch: 12220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Total/NA	Solid	8021B	12021
890-1548-2	SS02	Total/NA	Solid	8021B	12021
890-1548-3	SS03	Total/NA	Solid	8021B	12021
890-1548-4	SS04	Total/NA	Solid	8021B	12021
890-1548-5	SS05	Total/NA	Solid	8021B	12021
MB 880-12021/5-A	Method Blank	Total/NA	Solid	8021B	12021
LCS 880-12021/1-A	Lab Control Sample	Total/NA	Solid	8021B	12021
LCSD 880-12021/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12021
890-1548-1 MS	SS01	Total/NA	Solid	8021B	12021
890-1548-1 MSD	SS01	Total/NA	Solid	8021B	12021

Analysis Batch: 12338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Total/NA	Solid	Total BTEX	
890-1548-2	SS02	Total/NA	Solid	Total BTEX	
890-1548-3	SS03	Total/NA	Solid	Total BTEX	
890-1548-4	SS04	Total/NA	Solid	Total BTEX	
890-1548-5	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Total/NA	Solid	8015NM Prep	
890-1548-2	SS02	Total/NA	Solid	8015NM Prep	
890-1548-3	SS03	Total/NA	Solid	8015NM Prep	
890-1548-4	SS04	Total/NA	Solid	8015NM Prep	
890-1548-5	SS05	Total/NA	Solid	8015NM Prep	
MB 880-11991/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11991/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11991/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1557-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1557-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Total/NA	Solid	8015B NM	11991
890-1548-2	SS02	Total/NA	Solid	8015B NM	11991

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QC Association Summary

Client: WSP USA Inc. Job ID: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

GC Semi VOA (Continued)

Analysis Batch: 11994 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-3	SS03	Total/NA	Solid	8015B NM	11991
890-1548-4	SS04	Total/NA	Solid	8015B NM	11991
890-1548-5	SS05	Total/NA	Solid	8015B NM	11991
MB 880-11991/1-A	Method Blank	Total/NA	Solid	8015B NM	11991
LCS 880-11991/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11991
LCSD 880-11991/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11991
890-1557-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	11991
890-1557-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11991

Analysis Batch: 12045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Total/NA	Solid	8015 NM	
890-1548-2	SS02	Total/NA	Solid	8015 NM	
890-1548-3	SS03	Total/NA	Solid	8015 NM	
890-1548-4	SS04	Total/NA	Solid	8015 NM	
890-1548-5	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Soluble	Solid	DI Leach	
890-1548-2	SS02	Soluble	Solid	DI Leach	
890-1548-3	SS03	Soluble	Solid	DI Leach	
890-1548-4	SS04	Soluble	Solid	DI Leach	
890-1548-5	SS05	Soluble	Solid	DI Leach	
MB 880-12129/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12129/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12129/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1547-A-6-J MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1547-A-6-K MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 12200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1548-1	SS01	Soluble	Solid	300.0	12129
890-1548-2	SS02	Soluble	Solid	300.0	12129
890-1548-3	SS03	Soluble	Solid	300.0	12129
890-1548-4	SS04	Soluble	Solid	300.0	12129
890-1548-5	SS05	Soluble	Solid	300.0	12129
MB 880-12129/1-A	Method Blank	Soluble	Solid	300.0	12129
LCS 880-12129/2-A	Lab Control Sample	Soluble	Solid	300.0	12129
LCSD 880-12129/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12129
890-1547-A-6-J MS	Matrix Spike	Soluble	Solid	300.0	12129
890-1547-A-6-K MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12129

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

Client Sample ID: SS01

Lab Sample ID: 890-1548-1
Matrix: Solid
Date Collected: 11/05/21 12:34
Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 12:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11991	11/11/21 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11994	11/11/21 16:48	AJ	XEN MID
Soluble	Leach	DI Leach			12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		5	12200	11/14/21 02:43	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1548-2
Matrix: Solid
Date Collected: 11/05/21 12:37
Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 13:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11991	11/11/21 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11994	11/11/21 17:09	AJ	XEN MID
Soluble	Leach	DI Leach			12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		10	12200	11/14/21 02:48	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1548-3
Matrix: Solid
Date Collected: 11/05/21 12:42
Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 13:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/15/21 14:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11991	11/11/21 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11994	11/11/21 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		50	12200	11/14/21 03:03	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-1548-4
Matrix: Solid
Date Collected: 11/05/21 12:44
Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 13:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/15/21 14:12	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

Client Sample ID: SS04 Lab Sample ID: 890-1548-4

Date Collected: 11/05/21 12:44 **Matrix: Solid**
Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11991	11/11/21 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11994	11/11/21 17:51	AJ	XEN MID
Soluble	Leach	DI Leach			12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		5	12200	11/14/21 03:07	CH	XEN MID

Client Sample ID: SS05 Lab Sample ID: 890-1548-5

Date Collected: 11/05/21 12:48 **Matrix: Solid**
Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			12021	11/11/21 12:48	KL	XEN MID
Total/NA	Analysis	8021B		1	12220	11/15/21 14:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	12338	11/15/21 14:12	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			11991	11/11/21 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1	11994	11/11/21 18:12	AJ	XEN MID
Soluble	Leach	DI Leach			12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		5	12200	11/14/21 03:12	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: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

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	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1548-1
Project/Site: PLU 25 BD 127 SDG: 31403236.022.0129

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

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 25 BD 127

Job ID: 890-1548-1
SDG: 31403236.022.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1548-1	SS01	Solid	11/05/21 12:34	11/08/21 16:15	0.5
890-1548-2	SS02	Solid	11/05/21 12:37	11/08/21 16:15	0.5
890-1548-3	SS03	Solid	11/05/21 12:42	11/08/21 16:15	0.5
890-1548-4	SS04	Solid	11/05/21 12:44	11/08/21 16:15	0.5
890-1548-5	SS05	Solid	11/05/21 12:48	11/08/21 16:15	0.5

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, INC.
Address:	3300 North A Street Bldg 1, Unit 222	Address:	3104 E Green St
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, New Mexico 88220
Phone:	817-683-2503	Email:	kalei.jennings@wsp.com, payton.benner@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 25 BD 127	Turn Around	
Project Number:	31403236.022.0129	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.6/1.4	Thermometer ID	TNM-003	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-1548 Chain of Custody

Work Order Notes

AFE: DD.2017.03804.CAP.CMP.01

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	11/05/21	12:34	0.5'	1	X	X	X	Discrete
SS02	S	11/05/21	12:37	0.5'	1	X	X	X	Discrete
SS03	S	11/05/21	12;42	0.5'	1	X	X	X	Discrete
SS04	S	11/05/21	12:44	0.5'	1	X	X	X	Discrete
SS05	S	11/05/21	12:48	0.5'	1	X	X	X	Discrete

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner	Clint	11.8.21 1615	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

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: 890-500 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 #: 890-1548-1
Address: 1211 W Florida Ave	Due Date Requested: 11/12/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: PLU 25 BD 127	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A HCL, B NaOH, C - Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, 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 (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SS01 (890-1548-1)	11/5/21	12 34 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-1548-2)	11/5/21	12 37 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-1548-3)	11/5/21	12 42 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-1548-4)	11/5/21	12 44 Mountain		Solid			X	X	X	X	X	1	
SS05 (890-1548-5)	11/5/21	12 48 Mountain		Solid			X	X	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 *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *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:	Date/Time	Company	Received by:	Date/Time:	Company
Clee Cudp 11.9.21			Kramer	11.10.21	
Relinquished by:	Date/Time	Company	Received by:	Date/Time 1115	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 3.8/3.9

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1548-1
SDG Number: 31403236.022.0129

Login Number: 1548
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: 890-1548-1
SDG Number: 31403236.022.0129

Login Number: 1548
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 11/10/21 11:22 AM

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	3.8/3.9
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").	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1773-1
Laboratory SDG: 31403236.022.0129 TASK09.02
Client Project/Site: PLU 25 BD 127 H
Revision: 1

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/7/2022 9:54:37 AM

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 25 BD 127 H

Laboratory Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
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 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Job ID: 890-1773-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1773-1

REVISION

The report being provided is a revision of the original report sent on 1/4/2022. The report (revision 1) is being revised due to Per client email, requesting sample ID change.

Report revision history

Receipt
The samples were received on 12/28/2021 3:25 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 1.2°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: PH01 (890-1773-1), PH02 (890-1773-3), PH02A (890-1773-4), PH03 (890-1773-5), PH03A (890-1773-6), PH04 (890-1773-7), PH04A (890-1773-8), PH05 (890-1773-9), PH05A (890-1773-10), SS09 (890-1773-11) and SS10 (890-1773-12). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15861 and analytical batch 880-15872 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH01

Date Collected: 12/28/21 09:05
Date Received: 12/28/21 15:25
Sample Depth: 1

Lab Sample ID: 890-1773-1
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		12/30/21 14:12	01/02/22 06:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 06:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 06:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/30/21 14:12	01/02/22 06:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 06:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/30/21 14:12	01/02/22 06:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*142*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/02/22 06:14*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*12/30/21 14:12*	*01/02/22 06:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/04/22 15:21	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 F1 F2	49.9		mg/Kg		01/03/22 09:15	01/03/22 12:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9		mg/Kg		01/03/22 09:15	01/03/22 12:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*01/03/22 09:15*	*01/03/22 12:01*	*1*
o-Terphenyl	*135*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 12:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1000**		4.98		mg/Kg			01/03/22 18:19	1

Client Sample ID: PH01A

Date Collected: 12/28/21 09:07
Date Received: 12/28/21 15:25
Sample Depth: 2

Lab Sample ID: 890-1773-2
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		12/30/21 14:12	01/02/22 06:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 06:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 06:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/30/21 14:12	01/02/22 06:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 06:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/30/21 14:12	01/02/22 06:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/02/22 06:41*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH01A
Date Collected: 12/28/21 09:07
Date Received: 12/28/21 15:25
Sample Depth: 2

Lab Sample ID: 890-1773-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*12/30/21 14:12*	*01/02/22 06:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 13:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/03/22 09:15	01/03/22 13:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/03/22 09:15	01/03/22 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*01/03/22 09:15*	*01/03/22 13:07*	*1*
o-Terphenyl	*129*		*70 - 130*	*01/03/22 09:15*	*01/03/22 13:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.5**		4.97	mg/Kg			01/03/22 18:30	1

Client Sample ID: PH02
Date Collected: 12/28/21 09:15
Date Received: 12/28/21 15:25
Sample Depth: 1

Lab Sample ID: 890-1773-3
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		12/30/21 14:12	01/02/22 07:08	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/30/21 14:12	01/02/22 07:08	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/30/21 14:12	01/02/22 07:08	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		12/30/21 14:12	01/02/22 07:08	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/30/21 14:12	01/02/22 07:08	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		12/30/21 14:12	01/02/22 07:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/02/22 07:08*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*12/30/21 14:12*	*01/02/22 07:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/04/22 15:21	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH02

Date Collected: 12/28/21 09:15
Date Received: 12/28/21 15:25
Sample Depth: 1

Lab Sample ID: 890-1773-3
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		01/03/22 09:15	01/03/22 13:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 13:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*126*		*70 - 130*	*01/03/22 09:15*	*01/03/22 13:28*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 13:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1590**		25.1		mg/Kg			01/03/22 18:42	5

Client Sample ID: PH02A

Date Collected: 12/28/21 09:01
Date Received: 12/28/21 15:25
Sample Depth: 4

Lab Sample ID: 890-1773-4
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		12/30/21 14:12	01/02/22 07:35	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/30/21 14:12	01/02/22 07:35	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/30/21 14:12	01/02/22 07:35	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/30/21 14:12	01/02/22 07:35	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/30/21 14:12	01/02/22 07:35	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/30/21 14:12	01/02/22 07:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*146*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/02/22 07:35*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*12/30/21 14:12*	*01/02/22 07:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 13:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 13:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 13:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*01/03/22 09:15*	*01/03/22 13:49*	*1*
o-Terphenyl	*138*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 13:49*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH02A
Lab Sample ID: 890-1773-4
Date Collected: 12/28/21 09:01
Matrix: Solid
Date Received: 12/28/21 15:25
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27.5		4.98		mg/Kg			01/03/22 19:18	1

Client Sample ID: PH03
Lab Sample ID: 890-1773-5
Date Collected: 12/28/21 09:28
Matrix: Solid
Date Received: 12/28/21 15:25
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		12/30/21 14:12	01/02/22 08:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 08:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 08:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/30/21 14:12	01/02/22 08:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/02/22 08:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/30/21 14:12	01/02/22 08:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*12/30/21 14:12*	*01/02/22 08:02*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*12/30/21 14:12*	*01/02/22 08:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 14:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 14:09	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*01/03/22 09:15*	*01/03/22 14:09*	*1*
o-Terphenyl	*140*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 14:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4210		25.3		mg/Kg			01/03/22 19:30	5

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH03A
Date Collected: 12/28/21 09:31
Date Received: 12/28/21 15:25
Sample Depth: 2

Lab Sample ID: 890-1773-6
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		01/03/22 10:00	01/04/22 10:22	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 10:22	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 10:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 10:22	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 10:22	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 10:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*161*	*S1+*	*70 - 130*	*01/03/22 10:00*	*01/04/22 10:22*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*01/03/22 10:00*	*01/04/22 10:22*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 14:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 14:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*120*		*70 - 130*	*01/03/22 09:15*	*01/03/22 14:30*	*1*
o-Terphenyl	*141*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 14:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2070**		25.1		mg/Kg			01/03/22 19:41	5

Client Sample ID: PH04
Date Collected: 12/28/21 10:24
Date Received: 12/28/21 15:25
Sample Depth: 1

Lab Sample ID: 890-1773-7
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		01/03/22 10:00	01/04/22 10:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 10:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 10:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/03/22 10:00	01/04/22 10:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 10:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/03/22 10:00	01/04/22 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*180*	*S1+*	*70 - 130*	*01/03/22 10:00*	*01/04/22 10:49*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH04

Date Collected: 12/28/21 10:24
Date Received: 12/28/21 15:25
Sample Depth: 1

Lab Sample ID: 890-1773-7
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*01/03/22 10:00*	*01/04/22 10:49*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 14:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/03/22 09:15	01/03/22 14:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/03/22 09:15	01/03/22 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*01/03/22 09:15*	*01/03/22 14:52*	*1*
o-Terphenyl	*146*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 14:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1520**		25.0	mg/Kg			01/03/22 19:53	5

Client Sample ID: PH04A

Date Collected: 12/28/21 10:29
Date Received: 12/28/21 15:25
Sample Depth: 4

Lab Sample ID: 890-1773-8
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		01/03/22 10:00	01/04/22 11:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/03/22 10:00	01/04/22 11:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/03/22 10:00	01/04/22 11:15	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/03/22 10:00	01/04/22 11:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/03/22 10:00	01/04/22 11:15	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/03/22 10:00	01/04/22 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*179*	*S1+*	*70 - 130*	*01/03/22 10:00*	*01/04/22 11:15*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*01/03/22 10:00*	*01/04/22 11:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/04/22 15:21	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH04A
Date Collected: 12/28/21 10:29
Date Received: 12/28/21 15:25
Sample Depth: 4

Lab Sample ID: 890-1773-8
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		01/03/22 09:15	01/03/22 15:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 15:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*124*		*70 - 130*	*01/03/22 09:15*	*01/03/22 15:13*	*1*
o-Terphenyl	*145*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 15:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**293**		49.8		mg/Kg			01/03/22 20:05	10

Client Sample ID: PH05
Date Collected: 12/28/21 10:35
Date Received: 12/28/21 15:25
Sample Depth: 1

Lab Sample ID: 890-1773-9
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		01/03/22 10:00	01/04/22 11:42	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 11:42	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 11:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 11:42	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 11:42	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*183*	*S1+*	*70 - 130*	*01/03/22 10:00*	*01/04/22 11:42*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*01/03/22 10:00*	*01/04/22 11:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**62.9**		50.0		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 15:36	1
Diesel Range Organics (Over C10-C28)	**62.9**		50.0		mg/Kg		01/03/22 09:15	01/03/22 15:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*122*		*70 - 130*	*01/03/22 09:15*	*01/03/22 15:36*	*1*
o-Terphenyl	*143*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 15:36*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH05
Date Collected: 12/28/21 10:35
Date Received: 12/28/21 15:25
Sample Depth: 1

Lab Sample ID: 890-1773-9
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	838		25.2		mg/Kg			01/03/22 20:17	5

Client Sample ID: PH05A
Date Collected: 12/28/21 10:37
Date Received: 12/28/21 15:25
Sample Depth: 2

Lab Sample ID: 890-1773-10
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		01/03/22 10:00	01/04/22 12:09	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 12:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 12:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 12:09	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 12:09	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*196*	*S1+*	*70 - 130*	*01/03/22 10:00*	*01/04/22 12:09*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*01/03/22 10:00*	*01/04/22 12:09*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 15:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 15:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*123*		*70 - 130*	*01/03/22 09:15*	*01/03/22 15:57*	*1*
o-Terphenyl	*143*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 15:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.5		4.98		mg/Kg			01/03/22 20:53	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: SS09

Date Collected: 12/28/21 12:26
Date Received: 12/28/21 15:25
Sample Depth: 0.25

Lab Sample ID: 890-1773-11
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		01/03/22 10:00	01/04/22 12:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 12:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 12:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/03/22 10:00	01/04/22 12:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 12:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/03/22 10:00	01/04/22 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*156*	*S1+*	*70 - 130*	*01/03/22 10:00*	*01/04/22 12:35*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/03/22 10:00*	*01/04/22 12:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 16:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 16:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*01/03/22 09:15*	*01/03/22 16:38*	*1*
o-Terphenyl	*138*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 16:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.04**		4.95		mg/Kg			01/03/22 21:05	1

Client Sample ID: SS10

Date Collected: 12/28/21 12:28
Date Received: 12/28/21 15:25
Sample Depth: 0.25

Lab Sample ID: 890-1773-12
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		01/03/22 10:00	01/04/22 13:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 13:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 13:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 13:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/03/22 10:00	01/04/22 13:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/03/22 10:00	01/04/22 13:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*155*	*S1+*	*70 - 130*	*01/03/22 10:00*	*01/04/22 13:01*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: SS10

Date Collected: 12/28/21 12:28
Date Received: 12/28/21 15:25
Sample Depth: 0.25

Lab Sample ID: 890-1773-12

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*01/03/22 10:00*	*01/04/22 13:01*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 16:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 16:59	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/03/22 09:15	01/03/22 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*125*		*70 - 130*	*01/03/22 09:15*	*01/03/22 16:59*	*1*
o-Terphenyl	*139*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 16:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			01/03/22 21:40	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

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)
880-9746-A-6-G MS	Matrix Spike	127	111
880-9746-A-6-H MSD	Matrix Spike Duplicate	127	106
890-1756-A-3-D MS	Matrix Spike	137 S1+	89
890-1756-A-3-E MSD	Matrix Spike Duplicate	168 S1+	101
890-1773-1	PH01	142 S1+	101
890-1773-2	PH01A	143 S1+	100
890-1773-3	PH02	146 S1+	99
890-1773-4	PH02A	146 S1+	100
890-1773-5	PH03	113	87
890-1773-6	PH03A	161 S1+	102
890-1773-7	PH04	180 S1+	98
890-1773-8	PH04A	179 S1+	112
890-1773-9	PH05	183 S1+	102
890-1773-10	PH05A	196 S1+	111
890-1773-11	SS09	156 S1+	99
890-1773-12	SS10	155 S1+	103
LCS 880-15802/1-A	Lab Control Sample	170 S1+	116
LCS 880-15812/1-A	Lab Control Sample	121	0 S1-
LCSD 880-15812/2-A	Lab Control Sample Dup	143 S1+	117
MB 880-15709/5-A	Method Blank	93	88
MB 880-15802/5-A	Method Blank	105	101
MB 880-15812/5-A	Method Blank	90	87

Surrogate Legend

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

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		
LCSD 880-15802/2-A	Lab Control Sample Dup		

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)
890-1773-1	PH01	120	135 S1+
890-1773-1 MS	PH01	113	118
890-1773-1 MSD	PH01	104	110
890-1773-2	PH01A	112	129
890-1773-3	PH02	126	145 S1+
890-1773-4	PH02A	120	138 S1+

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
890-1773-5	PH03	122	140 S1+										
890-1773-6	PH03A	120	141 S1+										
890-1773-7	PH04	125	146 S1+										
890-1773-8	PH04A	124	145 S1+										
890-1773-9	PH05	122	143 S1+										
890-1773-10	PH05A	123	143 S1+										
890-1773-11	SS09	125	138 S1+										
890-1773-12	SS10	125	139 S1+										
LCS 880-15861/2-A	Lab Control Sample	116	111										
LCSD 880-15861/3-A	Lab Control Sample Dup	107	102										
MB 880-15861/1-A	Method Blank	96	120										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15709/5-A
Matrix: Solid
Analysis Batch: 15877

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15709

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/03/22 09:02	01/03/22 13:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 09:02	01/03/22 13:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 09:02	01/03/22 13:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/03/22 09:02	01/03/22 13:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 09:02	01/03/22 13:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/03/22 09:02	01/03/22 13:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*01/03/22 09:02*	*01/03/22 13:34*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*01/03/22 09:02*	*01/03/22 13:34*	*1*

Lab Sample ID: MB 880-15802/5-A
Matrix: Solid
Analysis Batch: 15877

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15802

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 03:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 03:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 03:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/03/22 10:00	01/04/22 03:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/03/22 10:00	01/04/22 03:10	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/03/22 10:00	01/04/22 03:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/03/22 10:00*	*01/04/22 03:10*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/03/22 10:00*	*01/04/22 03:10*	*1*

Lab Sample ID: LCS 880-15802/1-A
Matrix: Solid
Analysis Batch: 15877

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15802

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07559		mg/Kg		76	70 - 130		
Toluene			0.100	0.07239		mg/Kg		72	70 - 130		
Ethylbenzene			0.100	0.08076		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1616		mg/Kg		81	70 - 130		
o-Xylene			0.100	0.08324		mg/Kg		83	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*170*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*

Lab Sample ID: LCSD 880-15802/2-A
Matrix: Solid
Analysis Batch: 15877

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15802

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07218		mg/Kg					

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

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

Lab Sample ID: LCSD 880-15802/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15877 **Prep Batch: 15802**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene			0.100	0.08053		mg/Kg					
Ethylbenzene			0.100	0.07951		mg/Kg					
m-Xylene & p-Xylene			0.200	0.1599		mg/Kg					
o-Xylene			0.100	0.08145		mg/Kg					

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

Lab Sample ID: 890-1756-A-3-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15877 **Prep Batch: 15802**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U F2 F1	0.0998	0.02064	F1	mg/Kg		21	70 - 130
Toluene	<0.00198	U F2 F1	0.0998	0.01910	F1	mg/Kg		19	70 - 130
Ethylbenzene	<0.00198	U F2 F1	0.0998	0.01619	F1	mg/Kg		16	70 - 130
m-Xylene & p-Xylene	<0.00396	U F2 F1	0.200	0.03186	F1	mg/Kg		16	70 - 130
o-Xylene	<0.00198	U F2 F1	0.0998	0.01958	F1	mg/Kg		20	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: 890-1756-A-3-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15877 **Prep Batch: 15802**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F2 F1	0.101	0.05926	F2 F1	mg/Kg		59	70 - 130	97	35
Toluene	<0.00198	U F2 F1	0.101	0.05203	F2 F1	mg/Kg		52	70 - 130	93	35
Ethylbenzene	<0.00198	U F2 F1	0.101	0.04861	F2 F1	mg/Kg		48	70 - 130	100	35
m-Xylene & p-Xylene	<0.00396	U F2 F1	0.202	0.09437	F2 F1	mg/Kg		47	70 - 130	99	35
o-Xylene	<0.00198	U F2 F1	0.101	0.05331	F2 F1	mg/Kg		53	70 - 130	93	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*168*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-15812/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15844 **Prep Batch: 15812**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/30/21 14:12	01/01/22 21:46	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

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

Lab Sample ID: MB 880-15812/5-A
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15812

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/30/21 14:12	01/01/22 21:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*12/30/21 14:12*	*01/01/22 21:46*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*12/30/21 14:12*	*01/01/22 21:46*	*1*

Lab Sample ID: LCS 880-15812/1-A
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15812

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09353		mg/Kg		94	70 - 130		
Toluene			0.100	0.08852		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.07882		mg/Kg		79	70 - 130		
m-Xylene & p-Xylene			0.200	0.1608		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.07679		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*0*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-15812/2-A
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15812

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07182		mg/Kg		72	70 - 130	26	35
Toluene			0.100	0.08616		mg/Kg		86	70 - 130	3	35
Ethylbenzene			0.100	0.08216		mg/Kg		82	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1660		mg/Kg		83	70 - 130	3	35
o-Xylene			0.100	0.08149		mg/Kg		81	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: 880-9746-A-6-G MS
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15812

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00202	U F1	0.0994	0.06266	F1	mg/Kg		63	70 - 130		
Toluene	<0.00202	U F2 F1	0.0994	0.06389	F1	mg/Kg		64	70 - 130		
Ethylbenzene	<0.00202	U F1	0.0994	0.06876	F1	mg/Kg		69	70 - 130		
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1390		mg/Kg		70	70 - 130		
o-Xylene	<0.00202	U F1	0.0994	0.06885	F1	mg/Kg		69	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

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

Lab Sample ID: 880-9746-A-6-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15844 — **Prep Batch: 15812**

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 880-9746-A-6-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15844 — **Prep Batch: 15812**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0998	0.06980		mg/Kg		70	70 - 130	11	35
Toluene	<0.00202	U F2 F1	0.0998	0.007273	F2 F1	mg/Kg		7	70 - 130	159	35
Ethylbenzene	<0.00202	U F1	0.0998	0.06958		mg/Kg		70	70 - 130	1	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1399		mg/Kg		70	70 - 130	1	35
o-Xylene	<0.00202	U F1	0.0998	0.06893	F1	mg/Kg		69	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	127		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-15861/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15872 — **Prep Batch: 15861**

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		01/03/22 09:15	01/03/22 10:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 10:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 10:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	01/03/22 09:15	01/03/22 10:57	1
o-Terphenyl	120		70 - 130	01/03/22 09:15	01/03/22 10:57	1

Lab Sample ID: LCS 880-15861/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15872 — **Prep Batch: 15861**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1059		mg/Kg		106	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1210		mg/Kg		121	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	111		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

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

Lab Sample ID: LCSD 880-15861/3-A
Matrix: Solid
Analysis Batch: 15872

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15861

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	985.7		mg/Kg		99	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1132		mg/Kg		113	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*107*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 890-1773-1 MS
Matrix: Solid
Analysis Batch: 15872

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 15861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	996	796.6		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	499.7	F1	mg/Kg		47	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*118*		*70 - 130*

Lab Sample ID: 890-1773-1 MSD
Matrix: Solid
Analysis Batch: 15872

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 15861

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	<49.9	U F1 F2	999	465.0	F1 F2	mg/Kg		47	70 - 130	53	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	469.3	F1	mg/Kg		44	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15803/1-A
Matrix: Solid
Analysis Batch: 15920

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			01/03/22 16:56	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-15803/2-A
Matrix: Solid
Analysis Batch: 15920

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	245.5		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-15803/3-A
Matrix: Solid
Analysis Batch: 15920

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	239.6		mg/Kg		96	90 - 110	2	20

Lab Sample ID: 890-1773-9 MS
Matrix: Solid
Analysis Batch: 15920

Client Sample ID: PH05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	838		1260	1988		mg/Kg		91	90 - 110		

Lab Sample ID: 890-1773-9 MSD
Matrix: Solid
Analysis Batch: 15920

Client Sample ID: PH05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	838		1260	1994		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

GC VOA

Prep Batch: 15709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15709/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 15802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-6	PH03A	Total/NA	Solid	5035	
890-1773-7	PH04	Total/NA	Solid	5035	
890-1773-8	PH04A	Total/NA	Solid	5035	
890-1773-9	PH05	Total/NA	Solid	5035	
890-1773-10	PH05A	Total/NA	Solid	5035	
890-1773-11	SS09	Total/NA	Solid	5035	
890-1773-12	SS10	Total/NA	Solid	5035	
MB 880-15802/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15802/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15802/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1756-A-3-D MS	Matrix Spike	Total/NA	Solid	5035	
890-1756-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 15812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Total/NA	Solid	5035	
890-1773-2	PH01A	Total/NA	Solid	5035	
890-1773-3	PH02	Total/NA	Solid	5035	
890-1773-4	PH02A	Total/NA	Solid	5035	
890-1773-5	PH03	Total/NA	Solid	5035	
MB 880-15812/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15812/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15812/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9746-A-6-G MS	Matrix Spike	Total/NA	Solid	5035	
880-9746-A-6-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 15844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Total/NA	Solid	8021B	15812
890-1773-2	PH01A	Total/NA	Solid	8021B	15812
890-1773-3	PH02	Total/NA	Solid	8021B	15812
890-1773-4	PH02A	Total/NA	Solid	8021B	15812
890-1773-5	PH03	Total/NA	Solid	8021B	15812
MB 880-15812/5-A	Method Blank	Total/NA	Solid	8021B	15812
LCS 880-15812/1-A	Lab Control Sample	Total/NA	Solid	8021B	15812
LCSD 880-15812/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15812
880-9746-A-6-G MS	Matrix Spike	Total/NA	Solid	8021B	15812
880-9746-A-6-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15812

Analysis Batch: 15877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-6	PH03A	Total/NA	Solid	8021B	15802
890-1773-7	PH04	Total/NA	Solid	8021B	15802
890-1773-8	PH04A	Total/NA	Solid	8021B	15802
890-1773-9	PH05	Total/NA	Solid	8021B	15802
890-1773-10	PH05A	Total/NA	Solid	8021B	15802
890-1773-11	SS09	Total/NA	Solid	8021B	15802

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

GC VOA (Continued)

Analysis Batch: 15877 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-12	SS10	Total/NA	Solid	8021B	15802
MB 880-15709/5-A	Method Blank	Total/NA	Solid	8021B	15709
MB 880-15802/5-A	Method Blank	Total/NA	Solid	8021B	15802
LCS 880-15802/1-A	Lab Control Sample	Total/NA	Solid	8021B	15802
LCSD 880-15802/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15802
890-1756-A-3-D MS	Matrix Spike	Total/NA	Solid	8021B	15802
890-1756-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15802

Analysis Batch: 16004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Total/NA	Solid	Total BTEX	
890-1773-2	PH01A	Total/NA	Solid	Total BTEX	
890-1773-3	PH02	Total/NA	Solid	Total BTEX	
890-1773-4	PH02A	Total/NA	Solid	Total BTEX	
890-1773-5	PH03	Total/NA	Solid	Total BTEX	
890-1773-6	PH03A	Total/NA	Solid	Total BTEX	
890-1773-7	PH04	Total/NA	Solid	Total BTEX	
890-1773-8	PH04A	Total/NA	Solid	Total BTEX	
890-1773-9	PH05	Total/NA	Solid	Total BTEX	
890-1773-10	PH05A	Total/NA	Solid	Total BTEX	
890-1773-11	SS09	Total/NA	Solid	Total BTEX	
890-1773-12	SS10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 15861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Total/NA	Solid	8015NM Prep	
890-1773-2	PH01A	Total/NA	Solid	8015NM Prep	
890-1773-3	PH02	Total/NA	Solid	8015NM Prep	
890-1773-4	PH02A	Total/NA	Solid	8015NM Prep	
890-1773-5	PH03	Total/NA	Solid	8015NM Prep	
890-1773-6	PH03A	Total/NA	Solid	8015NM Prep	
890-1773-7	PH04	Total/NA	Solid	8015NM Prep	
890-1773-8	PH04A	Total/NA	Solid	8015NM Prep	
890-1773-9	PH05	Total/NA	Solid	8015NM Prep	
890-1773-10	PH05A	Total/NA	Solid	8015NM Prep	
890-1773-11	SS09	Total/NA	Solid	8015NM Prep	
890-1773-12	SS10	Total/NA	Solid	8015NM Prep	
MB 880-15861/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15861/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15861/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1773-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-1773-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Total/NA	Solid	8015B NM	15861
890-1773-2	PH01A	Total/NA	Solid	8015B NM	15861
890-1773-3	PH02	Total/NA	Solid	8015B NM	15861
890-1773-4	PH02A	Total/NA	Solid	8015B NM	15861

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

GC Semi VOA (Continued)

Analysis Batch: 15872 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-5	PH03	Total/NA	Solid	8015B NM	15861
890-1773-6	PH03A	Total/NA	Solid	8015B NM	15861
890-1773-7	PH04	Total/NA	Solid	8015B NM	15861
890-1773-8	PH04A	Total/NA	Solid	8015B NM	15861
890-1773-9	PH05	Total/NA	Solid	8015B NM	15861
890-1773-10	PH05A	Total/NA	Solid	8015B NM	15861
890-1773-11	SS09	Total/NA	Solid	8015B NM	15861
890-1773-12	SS10	Total/NA	Solid	8015B NM	15861
MB 880-15861/1-A	Method Blank	Total/NA	Solid	8015B NM	15861
LCS 880-15861/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15861
LCSD 880-15861/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15861
890-1773-1 MS	PH01	Total/NA	Solid	8015B NM	15861
890-1773-1 MSD	PH01	Total/NA	Solid	8015B NM	15861

Analysis Batch: 15912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Total/NA	Solid	8015 NM	
890-1773-2	PH01A	Total/NA	Solid	8015 NM	
890-1773-3	PH02	Total/NA	Solid	8015 NM	
890-1773-4	PH02A	Total/NA	Solid	8015 NM	
890-1773-5	PH03	Total/NA	Solid	8015 NM	
890-1773-6	PH03A	Total/NA	Solid	8015 NM	
890-1773-7	PH04	Total/NA	Solid	8015 NM	
890-1773-8	PH04A	Total/NA	Solid	8015 NM	
890-1773-9	PH05	Total/NA	Solid	8015 NM	
890-1773-10	PH05A	Total/NA	Solid	8015 NM	
890-1773-11	SS09	Total/NA	Solid	8015 NM	
890-1773-12	SS10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Soluble	Solid	DI Leach	
890-1773-2	PH01A	Soluble	Solid	DI Leach	
890-1773-3	PH02	Soluble	Solid	DI Leach	
890-1773-4	PH02A	Soluble	Solid	DI Leach	
890-1773-5	PH03	Soluble	Solid	DI Leach	
890-1773-6	PH03A	Soluble	Solid	DI Leach	
890-1773-7	PH04	Soluble	Solid	DI Leach	
890-1773-8	PH04A	Soluble	Solid	DI Leach	
890-1773-9	PH05	Soluble	Solid	DI Leach	
890-1773-10	PH05A	Soluble	Solid	DI Leach	
890-1773-11	SS09	Soluble	Solid	DI Leach	
890-1773-12	SS10	Soluble	Solid	DI Leach	
MB 880-15803/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15803/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15803/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1773-9 MS	PH05	Soluble	Solid	DI Leach	
890-1773-9 MSD	PH05	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

HPLC/IC

Analysis Batch: 15920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1773-1	PH01	Soluble	Solid	300.0	15803
890-1773-2	PH01A	Soluble	Solid	300.0	15803
890-1773-3	PH02	Soluble	Solid	300.0	15803
890-1773-4	PH02A	Soluble	Solid	300.0	15803
890-1773-5	PH03	Soluble	Solid	300.0	15803
890-1773-6	PH03A	Soluble	Solid	300.0	15803
890-1773-7	PH04	Soluble	Solid	300.0	15803
890-1773-8	PH04A	Soluble	Solid	300.0	15803
890-1773-9	PH05	Soluble	Solid	300.0	15803
890-1773-10	PH05A	Soluble	Solid	300.0	15803
890-1773-11	SS09	Soluble	Solid	300.0	15803
890-1773-12	SS10	Soluble	Solid	300.0	15803
MB 880-15803/1-A	Method Blank	Soluble	Solid	300.0	15803
LCS 880-15803/2-A	Lab Control Sample	Soluble	Solid	300.0	15803
LCSD 880-15803/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15803
890-1773-9 MS	PH05	Soluble	Solid	300.0	15803
890-1773-9 MSD	PH05	Soluble	Solid	300.0	15803

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH01

Date Collected: 12/28/21 09:05
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/02/22 06:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 12:01	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/03/22 18:19	CH	XEN MID

Client Sample ID: PH01A

Date Collected: 12/28/21 09:07
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/02/22 06:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 13:07	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/03/22 18:30	CH	XEN MID

Client Sample ID: PH02

Date Collected: 12/28/21 09:15
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/02/22 07:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 13:28	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		5	15920	01/03/22 18:42	CH	XEN MID

Client Sample ID: PH02A

Date Collected: 12/28/21 09:01
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/02/22 07:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH02A
Date Collected: 12/28/21 09:01
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 13:49	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/03/22 19:18	CH	XEN MID

Client Sample ID: PH03
Date Collected: 12/28/21 09:28
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/02/22 08:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 14:09	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		5	15920	01/03/22 19:30	CH	XEN MID

Client Sample ID: PH03A
Date Collected: 12/28/21 09:31
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15802	01/03/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/04/22 10:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 14:30	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		5	15920	01/03/22 19:41	CH	XEN MID

Client Sample ID: PH04
Date Collected: 12/28/21 10:24
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15802	01/03/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/04/22 10:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 14:52	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Client Sample ID: PH04 Lab Sample ID: 890-1773-7
Date Collected: 12/28/21 10:24 **Matrix: Solid**
Date Received: 12/28/21 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		5	15920	01/03/22 19:53	CH	XEN MID

Client Sample ID: PH04A Lab Sample ID: 890-1773-8
Date Collected: 12/28/21 10:29 **Matrix: Solid**
Date Received: 12/28/21 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15802	01/03/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/04/22 11:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		10	15920	01/03/22 20:05	CH	XEN MID

Client Sample ID: PH05 Lab Sample ID: 890-1773-9
Date Collected: 12/28/21 10:35 **Matrix: Solid**
Date Received: 12/28/21 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15802	01/03/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/04/22 11:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 15:36	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		5	15920	01/03/22 20:17	CH	XEN MID

Client Sample ID: PH05A Lab Sample ID: 890-1773-10
Date Collected: 12/28/21 10:37 **Matrix: Solid**
Date Received: 12/28/21 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15802	01/03/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/04/22 12:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 15:57	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/03/22 20:53	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Client Sample ID: SS09
Date Collected: 12/28/21 12:26
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15802	01/03/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/04/22 12:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 16:38	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/03/22 21:05	CH	XEN MID

Client Sample ID: SS10
Date Collected: 12/28/21 12:28
Date Received: 12/28/21 15:25

Lab Sample ID: 890-1773-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15802	01/03/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/04/22 13:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 16:59	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/03/22 21:40	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1773-1
Project/Site: PLU 25 BD 127 H SDG: 31403236.022.0129 TASK09.02

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127 H

Job ID: 890-1773-1
SDG: 31403236.022.0129 TASK09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1773-1	PH01	Solid	12/28/21 09:05	12/28/21 15:25	1
890-1773-2	PH01A	Solid	12/28/21 09:07	12/28/21 15:25	2
890-1773-3	PH02	Solid	12/28/21 09:15	12/28/21 15:25	1
890-1773-4	PH02A	Solid	12/28/21 09:01	12/28/21 15:25	4
890-1773-5	PH03	Solid	12/28/21 09:28	12/28/21 15:25	1
890-1773-6	PH03A	Solid	12/28/21 09:31	12/28/21 15:25	2
890-1773-7	PH04	Solid	12/28/21 10:24	12/28/21 15:25	1
890-1773-8	PH04A	Solid	12/28/21 10:29	12/28/21 15:25	4
890-1773-9	PH05	Solid	12/28/21 10:35	12/28/21 15:25	1
890-1773-10	PH05A	Solid	12/28/21 10:37	12/28/21 15:25	2
890-1773-11	SS09	Solid	12/28/21 12:26	12/28/21 15:25	0.25
890-1773-12	SS10	Solid	12/28/21 12:28	12/28/21 15:25	0.25

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 2

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, INC.
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E. Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, New Mexico 88220
Phone:	817-683-2503 Email:	Kalei.jennings@wsp.com	

Work Order Comments

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

Project Name:	PLU 25 BD 127 H	Turn Around	
Project Number:	31403236.022.0129 Task 09.02	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
PH01	S	12/28/21	9:05	1	1	X	X	X	Discrete
PH01A	S	12/28/21	9:07	2	1	X	X	X	Discrete
PH02	S	12/28/21	9:15	1	1	X	X	X	Discrete
PH02A	S	12/28/21	9:19	4	1	X	X	X	Discrete
PH03	S	12/28/21	9:28	1	1	X	X	X	Discrete
PH03A	S	12/28/21	9:31	2	1	X	X	X	Discrete
PH04	S	12/28/21	10:24	1	1	X	X	X	Discrete
PH04A	S	12/28/21	10:29	4	1	X	X	X	Discrete
PH05	S	12/28/21	10:35	1	1	X	X	X	Discrete
PH05A	S	12/28/21	10:37	2	1	X	X	X	Discrete

890-1773 Chain of Custody

Work Order Notes

API: 30-015-45854
AFE: DD.2017.03804.CAP.CM

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 p benner		12.28.21 / 3:25	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, INC.
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E. Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, New Mexico 88220
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments

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

Project Name:	PLU 25 BD 127 H	Turn Around	
Project Number:	31403236.022.0129 Task 09.02	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS01	S	12/28/21	12:26	0.25	1	X	X	X
SS02	S	12/28/21	12:28	0.25	1	X	X	X

Work Order Notes

API: 30-015-45854
AFE: DD.2017.03804.CAP.CM

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

Sample Comments

Discrete
Discrete

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner	N. Ellen	12.28.21 / 3:25	2		
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1773-1
SDG Number: 31403236.022.0129 TASK09.02

Login Number: 1773
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins 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: 890-1773-1
SDG Number: 31403236.022.0129 TASK09.02

Login Number: 1773
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 12/30/21 11:52 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1774-1
Laboratory SDG: 31403236.022.0129 TASK 09.02
Client Project/Site: PLU 25 BD 127H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
1/4/2022 2:47:36 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 25 BD 127H

Laboratory Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Job ID: 890-1774-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1774-1

Receipt
The samples were received on 12/28/2021 3:26 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 1.2°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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: FS01 (890-1774-1), FS02 (890-1774-2), FS03 (890-1774-3), FS04 (890-1774-4) and (890-1773-A-1-C). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15861 and analytical batch 880-15872 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-15803 and analytical batch 880-15920 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS01

Lab Sample ID: 890-1774-1
Matrix: Solid
Date Collected: 12/28/21 12:42
Date Received: 12/28/21 15:26
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/30/21 14:12	01/01/22 23:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/30/21 14:12	01/01/22 23:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/30/21 14:12	01/01/22 23:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/30/21 14:12	01/01/22 23:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/30/21 14:12	01/01/22 23:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/30/21 14:12	01/01/22 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*145*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/01/22 23:08*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*12/30/21 14:12*	*01/01/22 23:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**52.2**		50.0		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 17:19	1
Diesel Range Organics (Over C10-C28)	**52.2**		50.0		mg/Kg		01/03/22 09:15	01/03/22 17:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*127*		*70 - 130*	*01/03/22 09:15*	*01/03/22 17:19*	*1*
o-Terphenyl	*149*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 17:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**406**		4.98		mg/Kg			01/03/22 21:52	1

Client Sample ID: FS02

Lab Sample ID: 890-1774-2
Matrix: Solid
Date Collected: 12/28/21 12:44
Date Received: 12/28/21 15:26
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/30/21 14:12	01/01/22 23:34	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/30/21 14:12	01/01/22 23:34	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/30/21 14:12	01/01/22 23:34	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		12/30/21 14:12	01/01/22 23:34	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/30/21 14:12	01/01/22 23:34	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		12/30/21 14:12	01/01/22 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/01/22 23:34*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS02 — Lab Sample ID: 890-1774-2

Date Collected: 12/28/21 12:44 **Matrix: Solid**
Date Received: 12/28/21 15:26
Sample Depth: 1.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*12/30/21 14:12*	*01/01/22 23:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**210**		50.0	mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 17:39	1
Diesel Range Organics (Over C10-C28)	**210**		50.0	mg/Kg		01/03/22 09:15	01/03/22 17:39	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/03/22 09:15	01/03/22 17:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*143*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 17:39*	*1*
o-Terphenyl	*162*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 17:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1470**		5.00	mg/Kg			01/04/22 08:33	1

Client Sample ID: FS03 — Lab Sample ID: 890-1774-3

Date Collected: 12/28/21 13:01 **Matrix: Solid**
Date Received: 12/28/21 15:26
Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		12/30/21 14:12	01/02/22 00:01	1
Toluene	<0.00198	U	0.00198	mg/Kg		12/30/21 14:12	01/02/22 00:01	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		12/30/21 14:12	01/02/22 00:01	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		12/30/21 14:12	01/02/22 00:01	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		12/30/21 14:12	01/02/22 00:01	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		12/30/21 14:12	01/02/22 00:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*182*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/02/22 00:01*	*1*
1,4-Difluorobenzene (Surr)	*58*	*S1-*	*70 - 130*	*12/30/21 14:12*	*01/02/22 00:01*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1380**		50.0	mg/Kg			01/04/22 15:21	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS03 — Lab Sample ID: 890-1774-3

Date Collected: 12/28/21 13:01
Date Received: 12/28/21 15:26
Sample Depth: 1.5
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	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 17:59	1
Diesel Range Organics (Over C10-C28)	**1380**		50.0		mg/Kg		01/03/22 09:15	01/03/22 17:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*134*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 17:59*	*1*
o-Terphenyl	*151*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 17:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4710**		25.0		mg/Kg			01/04/22 08:45	5

Client Sample ID: FS04 — Lab Sample ID: 890-1774-4

Date Collected: 12/28/21 13:03
Date Received: 12/28/21 15:26
Sample Depth: 1.5
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		12/30/21 14:12	01/02/22 00:27	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/30/21 14:12	01/02/22 00:27	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/30/21 14:12	01/02/22 00:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/30/21 14:12	01/02/22 00:27	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/30/21 14:12	01/02/22 00:27	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/30/21 14:12	01/02/22 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*12/30/21 14:12*	*01/02/22 00:27*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*12/30/21 14:12*	*01/02/22 00:27*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/04/22 15:22	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1340**		49.9		mg/Kg			01/04/22 15:21	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		01/03/22 09:15	01/03/22 18:19	1
Diesel Range Organics (Over C10-C28)	**1290**		49.9		mg/Kg		01/03/22 09:15	01/03/22 18:19	1
Oil Range Organics (Over C28-C36)	**52.2**		49.9		mg/Kg		01/03/22 09:15	01/03/22 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*143*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 18:19*	*1*
o-Terphenyl	*160*	*S1+*	*70 - 130*	*01/03/22 09:15*	*01/03/22 18:19*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS04
Date Collected: 12/28/21 13:03
Date Received: 12/28/21 15:26
Sample Depth: 1.5

Lab Sample ID: 890-1774-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2340	F1	25.0		mg/Kg			12/30/21 20:03	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

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)
880-9746-A-6-G MS	Matrix Spike	127	111
880-9746-A-6-H MSD	Matrix Spike Duplicate	127	106
890-1774-1	FS01	145 S1+	76
890-1774-2	FS02	139 S1+	79
890-1774-3	FS03	182 S1+	58 S1-
890-1774-4	FS04	139 S1+	72
LCS 880-15812/1-A	Lab Control Sample	121	0 S1-
LCSD 880-15812/2-A	Lab Control Sample Dup	143 S1+	117
MB 880-15812/5-A	Method Blank	90	87

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)
890-1773-A-1-D MS	Matrix Spike	113	118
890-1773-A-1-E MSD	Matrix Spike Duplicate	104	110
890-1774-1	FS01	127	149 S1+
890-1774-2	FS02	143 S1+	162 S1+
890-1774-3	FS03	134 S1+	151 S1+
890-1774-4	FS04	143 S1+	160 S1+
LCS 880-15861/2-A	Lab Control Sample	116	111
LCSD 880-15861/3-A	Lab Control Sample Dup	107	102
MB 880-15861/1-A	Method Blank	96	120

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-15812/5-A
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 15812

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/30/21 14:12	01/01/22 21:46	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/30/21 14:12	01/01/22 21:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*12/30/21 14:12*	*01/01/22 21:46*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*12/30/21 14:12*	*01/01/22 21:46*	*1*

Lab Sample ID: LCS 880-15812/1-A
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15812

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09353		mg/Kg		94	70 - 130		
Toluene			0.100	0.08852		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.07882		mg/Kg		79	70 - 130		
m-Xylene & p-Xylene			0.200	0.1608		mg/Kg		80	70 - 130		
o-Xylene			0.100	0.07679		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*
1,4-Difluorobenzene (Surr)	*0*	*S1-*	*70 - 130*

Lab Sample ID: LCSD 880-15812/2-A
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15812

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07182		mg/Kg		72	70 - 130	26	35
Toluene			0.100	0.08616		mg/Kg		86	70 - 130	3	35
Ethylbenzene			0.100	0.08216		mg/Kg		82	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1660		mg/Kg		83	70 - 130	3	35
o-Xylene			0.100	0.08149		mg/Kg		81	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: 880-9746-A-6-G MS
Matrix: Solid
Analysis Batch: 15844

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15812

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00202	U	0.0994	0.06266	F1	mg/Kg		63	70 - 130		
Toluene	<0.00202	U	0.0994	0.06389	F1	mg/Kg		64	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: 880-9746-A-6-G MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15844 — **Prep Batch: 15812**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.0994	0.06876	F1	mg/Kg		69	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1390		mg/Kg		70	70 - 130
o-Xylene	<0.00202	U	0.0994	0.06885	F1	mg/Kg		69	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 880-9746-A-6-H MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15844 — **Prep Batch: 15812**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0998	0.06980		mg/Kg		70	70 - 130	11	35
Toluene	<0.00202	U	0.0998	0.007273	F1 F2	mg/Kg		7	70 - 130	159	35
Ethylbenzene	<0.00202	U	0.0998	0.06958		mg/Kg		70	70 - 130	1	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1399		mg/Kg		70	70 - 130	1	35
o-Xylene	<0.00202	U	0.0998	0.06893	F1	mg/Kg		69	70 - 130	0	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: MB 880-15861/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15872 — **Prep Batch: 15861**

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		01/03/22 09:15	01/03/22 10:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 10:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/03/22 09:15	01/03/22 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*01/03/22 09:15*	*01/03/22 10:57*	*1*
o-Terphenyl	*120*		*70 - 130*	*01/03/22 09:15*	*01/03/22 10:57*	*1*

Lab Sample ID: LCS 880-15861/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15872 — **Prep Batch: 15861**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1059		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1210		mg/Kg		121	70 - 130

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: LCS 880-15861/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15872 **Prep Batch: 15861**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	116		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-15861/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15872 **Prep Batch: 15861**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	985.7		mg/Kg		99	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	1132		mg/Kg		113	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-1773-A-1-D MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15872 **Prep Batch: 15861**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1 F2	996	796.6		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	499.7	F1	mg/Kg		47	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	118		70 - 130

Lab Sample ID: 890-1773-A-1-E MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15872 **Prep Batch: 15861**

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	<49.9	U F1 F2	999	465.0	F1 F2	mg/Kg		47	70 - 130	53	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	469.3	F1	mg/Kg		44	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	110		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15804/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15822

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/30/21 19:31	1

Lab Sample ID: LCS 880-15804/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15822

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	253.0		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-15804/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15822

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	260.2		mg/Kg		104	90 - 110	3	20

Lab Sample ID: 890-1774-4 MS — **Client Sample ID: FS04**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	2340	F1	1250	3776	F1	mg/Kg		115	90 - 110		

Lab Sample ID: 890-1774-4 MSD — **Client Sample ID: FS04**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2340	F1	1250	3885	F1	mg/Kg		124	90 - 110	3	20

Lab Sample ID: MB 880-15803/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15920

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/03/22 16:56	1

Lab Sample ID: LCS 880-15803/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15920

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	245.5		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-15803/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15920

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	239.6		mg/Kg		96	90 - 110	2	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1770-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15920

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	287	F1	250	527.7		mg/Kg		97	90 - 110

Lab Sample ID: 890-1770-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15920

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	287	F1	250	505.3	F1	mg/Kg		88	90 - 110	4	20

Lab Sample ID: 890-1773-A-9-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15920

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	838		1260	1988		mg/Kg		91	90 - 110

Lab Sample ID: 890-1773-A-9-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15920

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	838		1260	1994		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

GC VOA

Prep Batch: 15812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Total/NA	Solid	5035	
890-1774-2	FS02	Total/NA	Solid	5035	
890-1774-3	FS03	Total/NA	Solid	5035	
890-1774-4	FS04	Total/NA	Solid	5035	
MB 880-15812/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15812/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15812/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9746-A-6-G MS	Matrix Spike	Total/NA	Solid	5035	
880-9746-A-6-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 15844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Total/NA	Solid	8021B	15812
890-1774-2	FS02	Total/NA	Solid	8021B	15812
890-1774-3	FS03	Total/NA	Solid	8021B	15812
890-1774-4	FS04	Total/NA	Solid	8021B	15812
MB 880-15812/5-A	Method Blank	Total/NA	Solid	8021B	15812
LCS 880-15812/1-A	Lab Control Sample	Total/NA	Solid	8021B	15812
LCSD 880-15812/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15812
880-9746-A-6-G MS	Matrix Spike	Total/NA	Solid	8021B	15812
880-9746-A-6-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15812

Analysis Batch: 16004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Total/NA	Solid	Total BTEX	
890-1774-2	FS02	Total/NA	Solid	Total BTEX	
890-1774-3	FS03	Total/NA	Solid	Total BTEX	
890-1774-4	FS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 15861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Total/NA	Solid	8015NM Prep	
890-1774-2	FS02	Total/NA	Solid	8015NM Prep	
890-1774-3	FS03	Total/NA	Solid	8015NM Prep	
890-1774-4	FS04	Total/NA	Solid	8015NM Prep	
MB 880-15861/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15861/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15861/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1773-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1773-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Total/NA	Solid	8015B NM	15861
890-1774-2	FS02	Total/NA	Solid	8015B NM	15861
890-1774-3	FS03	Total/NA	Solid	8015B NM	15861
890-1774-4	FS04	Total/NA	Solid	8015B NM	15861
MB 880-15861/1-A	Method Blank	Total/NA	Solid	8015B NM	15861
LCS 880-15861/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15861

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

GC Semi VOA (Continued)

Analysis Batch: 15872 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-15861/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15861
890-1773-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	15861
890-1773-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15861

Analysis Batch: 15912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Total/NA	Solid	8015 NM	
890-1774-2	FS02	Total/NA	Solid	8015 NM	
890-1774-3	FS03	Total/NA	Solid	8015 NM	
890-1774-4	FS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Soluble	Solid	DI Leach	
890-1774-2	FS02	Soluble	Solid	DI Leach	
890-1774-3	FS03	Soluble	Solid	DI Leach	
MB 880-15803/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15803/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15803/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1770-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1770-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-1773-A-9-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1773-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 15804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-4	FS04	Soluble	Solid	DI Leach	
MB 880-15804/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15804/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15804/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1774-4 MS	FS04	Soluble	Solid	DI Leach	
890-1774-4 MSD	FS04	Soluble	Solid	DI Leach	

Analysis Batch: 15822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-4	FS04	Soluble	Solid	300.0	15804
MB 880-15804/1-A	Method Blank	Soluble	Solid	300.0	15804
LCS 880-15804/2-A	Lab Control Sample	Soluble	Solid	300.0	15804
LCSD 880-15804/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15804
890-1774-4 MS	FS04	Soluble	Solid	300.0	15804
890-1774-4 MSD	FS04	Soluble	Solid	300.0	15804

Analysis Batch: 15920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1774-1	FS01	Soluble	Solid	300.0	15803
890-1774-2	FS02	Soluble	Solid	300.0	15803
890-1774-3	FS03	Soluble	Solid	300.0	15803
MB 880-15803/1-A	Method Blank	Soluble	Solid	300.0	15803
LCS 880-15803/2-A	Lab Control Sample	Soluble	Solid	300.0	15803

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

HPLC/IC (Continued)

Analysis Batch: 15920 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-15803/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15803
890-1770-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	15803
890-1770-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15803
890-1773-A-9-B MS	Matrix Spike	Soluble	Solid	300.0	15803
890-1773-A-9-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15803

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS01 Lab Sample ID: 890-1774-1

Date Collected: 12/28/21 12:42 **Matrix: Solid**
Date Received: 12/28/21 15:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/01/22 23:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 17:19	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/03/22 21:52	CH	XEN MID

Client Sample ID: FS02 Lab Sample ID: 890-1774-2

Date Collected: 12/28/21 12:44 **Matrix: Solid**
Date Received: 12/28/21 15:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/01/22 23:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 17:39	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		1	15920	01/04/22 08:33	CH	XEN MID

Client Sample ID: FS03 Lab Sample ID: 890-1774-3

Date Collected: 12/28/21 13:01 **Matrix: Solid**
Date Received: 12/28/21 15:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/02/22 00:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 17:59	AJ	XEN MID
Soluble	Leach	DI Leach			15803	12/30/21 12:27	CA	XEN MID
Soluble	Analysis	300.0		5	15920	01/04/22 08:45	CH	XEN MID

Client Sample ID: FS04 Lab Sample ID: 890-1774-4

Date Collected: 12/28/21 13:03 **Matrix: Solid**
Date Received: 12/28/21 15:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15812	12/30/21 14:12	MR	XEN MID
Total/NA	Analysis	8021B		1	15844	01/02/22 00:27	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	16004	01/04/22 15:22	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS04

Date Collected: 12/28/21 13:03
Date Received: 12/28/21 15:26

Lab Sample ID: 890-1774-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15912	01/04/22 15:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15861	01/03/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15872	01/03/22 18:19	AJ	XEN MID
Soluble	Leach	DI Leach			15804	12/30/21 12:33	CA	XEN MID
Soluble	Analysis	300.0		5	15822	12/30/21 20:03	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: 890-1774-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

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	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

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 25 BD 127H

Job ID: 890-1774-1
SDG: 31403236.022.0129 TASK 09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1774-1	FS01	Solid	12/28/21 12:42	12/28/21 15:26	1.5
890-1774-2	FS02	Solid	12/28/21 12:44	12/28/21 15:26	1.5
890-1774-3	FS03	Solid	12/28/21 13:01	12/28/21 15:26	1.5
890-1774-4	FS04	Solid	12/28/21 13:03	12/28/21 15:26	1.5

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, INC.
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E. Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, New Mexico 88220
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments

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

Project Name:	PLU 25 BD 127 H	Turn Around	
Project Number:	31403236.022.0129 Task 09.02	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

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

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS01	S	12/28/21	12:42	1.5	1	X	X	X	Composite
FS02	S	12/28/21	12:44	1.5	1	X	X	X	Composite
FS03	S	12/28/21	13:01	1.5	1	X	X	X	Composite
FS04	S	12/28/21	13:03	1.5	1	X	X	X	Composite

890-1774 Chain of Custody

Work Order Notes

API: 30-015-45854
AFE: DD.2017.03804.CAP.CM

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

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010:** 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 JBenner		12.28.21 13:26	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1774-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1774
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: 890-1774-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1774
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland
List Creation: 12/30/21 11:52 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
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	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1809-1
Laboratory SDG: 31403236.022.0129 TASK 09.02
Client Project/Site: PLU 25 BD 127H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
1/14/2022 1:12:52 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 25 BD 127H

Laboratory Job ID: 890-1809-1
SDG: 31403236.022.0129 TASK 09.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Job ID: 890-1809-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1809-1

Receipt
The samples were received on 1/7/2022 1:37 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 3.2°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
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-16424 and analytical batch 880-16336 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-16432 and 880-16432 and analytical batch 880-16543 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS03A — Lab Sample ID: 890-1809-1

Date Collected: 01/07/22 11:15 **Matrix: Solid**
Date Received: 01/07/22 13:37
Sample Depth: 1.65

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 12:46	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 12:46	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 12:46	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/11/22 07:30	01/11/22 12:46	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 12:46	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/11/22 07:30	01/11/22 12:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/11/22 07:30*	*01/11/22 12:46*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*01/11/22 07:30*	*01/11/22 12:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/12/22 13:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**217**		50.0		mg/Kg			01/12/22 14:00	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		01/10/22 11:18	01/11/22 00:06	1
Diesel Range Organics (Over C10-C28)	**217**		50.0		mg/Kg		01/10/22 11:18	01/11/22 00:06	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/10/22 11:18	01/11/22 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*01/10/22 11:18*	*01/11/22 00:06*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/10/22 11:18*	*01/11/22 00:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2390**		25.0		mg/Kg			01/14/22 00:53	5

Client Sample ID: FS04A — Lab Sample ID: 890-1809-2

Date Collected: 01/07/22 11:18 **Matrix: Solid**
Date Received: 01/07/22 13:37
Sample Depth: 1.65

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 13:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 13:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 13:07	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/11/22 07:30	01/11/22 13:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 13:07	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/11/22 07:30	01/11/22 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*01/11/22 07:30*	*01/11/22 13:07*	*1*

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1809-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS04A
Date Collected: 01/07/22 11:18
Date Received: 01/07/22 13:37
Sample Depth: 1.65

Lab Sample ID: 890-1809-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*01/11/22 07:30*	*01/11/22 13:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/12/22 13:10	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/12/22 14:00	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		01/10/22 11:18	01/11/22 00:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/10/22 11:18	01/11/22 00:26	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/10/22 11:18	01/11/22 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*01/10/22 11:18*	*01/11/22 00:26*	*1*
o-Terphenyl	*89*		*70 - 130*	*01/10/22 11:18*	*01/11/22 00:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**496**		5.00		mg/Kg			01/14/22 00:59	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1809-1
SDG: 31403236.022.0129 TASK 09.02

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)										
890-1808-A-1-A MS	Matrix Spike	113	97										
890-1808-A-1-B MSD	Matrix Spike Duplicate	114	99										
890-1809-1	FS03A	110	102										
890-1809-2	FS04A	116	108										
LCS 880-16375/1-A	Lab Control Sample	106	102										
LCSD 880-16375/2-A	Lab Control Sample Dup	100	95										
MB 880-16375/5-A	Method Blank	122	104										

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)										
890-1808-A-1-E MS	Matrix Spike	75	66 S1-										
890-1808-A-1-F MSD	Matrix Spike Duplicate	77	75										
890-1809-1	FS03A	90	90										
890-1809-2	FS04A	95	89										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO2	OTPH2										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
LCS 880-16424/2-A	Lab Control Sample	88	82										
LCSD 880-16424/3-A	Lab Control Sample Dup	90	85										
MB 880-16424/1-A	Method Blank	85	86										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1809-1
SDG: 31403236.022.0129 TASK 09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-16375/5-A
Matrix: Solid
Analysis Batch: 16473

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 16375

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 10:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 10:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 10:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/11/22 07:30	01/11/22 10:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/11/22 07:30	01/11/22 10:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/11/22 07:30	01/11/22 10:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*01/11/22 07:30*	*01/11/22 10:56*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/11/22 07:30*	*01/11/22 10:56*	*1*

Lab Sample ID: LCS 880-16375/1-A
Matrix: Solid
Analysis Batch: 16473

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 16375

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08315		mg/Kg		83	70 - 130		
Toluene			0.100	0.08870		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.09339		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1861		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.08889		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-16375/2-A
Matrix: Solid
Analysis Batch: 16473

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 16375

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07953		mg/Kg		80	70 - 130	4	35
Toluene			0.100	0.08523		mg/Kg		85	70 - 130	4	35
Ethylbenzene			0.100	0.08496		mg/Kg		85	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.1720		mg/Kg		86	70 - 130	8	35
o-Xylene			0.100	0.08408		mg/Kg		84	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 890-1808-A-1-A MS
Matrix: Solid
Analysis Batch: 16473

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 16375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00202	U	0.0996	0.07065		mg/Kg		71	70 - 130		
Toluene	<0.00202	U	0.0996	0.08138		mg/Kg		81	70 - 130		

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: 890-1808-A-1-A MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16473 **Prep Batch: 16375**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U	0.0996	0.08297		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.199	0.1604		mg/Kg		81	70 - 130
o-Xylene	<0.00202	U	0.0996	0.07909		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 890-1808-A-1-B MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16473 **Prep Batch: 16375**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.07696		mg/Kg		77	70 - 130	9	35
Toluene	<0.00202	U	0.100	0.08435		mg/Kg		84	70 - 130	4	35
Ethylbenzene	<0.00202	U	0.100	0.08810		mg/Kg		88	70 - 130	6	35
m-Xylene & p-Xylene	<0.00403	U	0.200	0.1699		mg/Kg		85	70 - 130	6	35
o-Xylene	<0.00202	U	0.100	0.08222		mg/Kg		82	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

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

Lab Sample ID: MB 880-16424/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16336 **Prep Batch: 16424**

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		01/10/22 11:18	01/10/22 20:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/10/22 11:18	01/10/22 20:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/10/22 11:18	01/10/22 20:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*01/10/22 11:18*	*01/10/22 20:35*	*1*
o-Terphenyl	*86*		*70 - 130*	*01/10/22 11:18*	*01/10/22 20:35*	*1*

Lab Sample ID: LCS 880-16424/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16336 **Prep Batch: 16424**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	826.7		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)			1000	915.4		mg/Kg		92	70 - 130

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: LCS 880-16424/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16336 **Prep Batch: 16424**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: LCSD 880-16424/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16336 **Prep Batch: 16424**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	841.5		mg/Kg		84	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	916.2		mg/Kg		92	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: 890-1808-A-1-E MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16336 **Prep Batch: 16424**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	977.5		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	851.8		mg/Kg		86	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	75		70 - 130
o-Terphenyl	66	S1-	70 - 130

Lab Sample ID: 890-1808-A-1-F MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 16336 **Prep Batch: 16424**

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	<49.9	U	999	1093		mg/Kg		107	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	862.8		mg/Kg		86	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	75		70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-16432/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16543

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/13/22 21:45	1

Lab Sample ID: LCS 880-16432/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16543

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	264.9		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-16432/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16543

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	270.8		mg/Kg		108	90 - 110	2	20

Lab Sample ID: 890-1807-A-3-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16543

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	278	F1	250	567.3	F1	mg/Kg		116	90 - 110		

Lab Sample ID: 890-1807-A-3-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 16543

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	278	F1	250	567.6	F1	mg/Kg		116	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

GC VOA

Prep Batch: 16375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Total/NA	Solid	5035	
890-1809-2	FS04A	Total/NA	Solid	5035	
MB 880-16375/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-16375/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-16375/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1808-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-1808-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 16473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Total/NA	Solid	8021B	16375
890-1809-2	FS04A	Total/NA	Solid	8021B	16375
MB 880-16375/5-A	Method Blank	Total/NA	Solid	8021B	16375
LCS 880-16375/1-A	Lab Control Sample	Total/NA	Solid	8021B	16375
LCSD 880-16375/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	16375
890-1808-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	16375
890-1808-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	16375

Analysis Batch: 16668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Total/NA	Solid	Total BTEX	
890-1809-2	FS04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 16336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Total/NA	Solid	8015B NM	16424
890-1809-2	FS04A	Total/NA	Solid	8015B NM	16424
MB 880-16424/1-A	Method Blank	Total/NA	Solid	8015B NM	16424
LCS 880-16424/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	16424
LCSD 880-16424/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	16424
890-1808-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	16424
890-1808-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	16424

Prep Batch: 16424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Total/NA	Solid	8015NM Prep	
890-1809-2	FS04A	Total/NA	Solid	8015NM Prep	
MB 880-16424/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-16424/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-16424/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1808-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1808-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 16554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Total/NA	Solid	8015 NM	
890-1809-2	FS04A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

HPLC/IC

Leach Batch: 16432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Soluble	Solid	DI Leach	
890-1809-2	FS04A	Soluble	Solid	DI Leach	
MB 880-16432/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-16432/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-16432/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1807-A-3-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1807-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 16543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1809-1	FS03A	Soluble	Solid	300.0	16432
890-1809-2	FS04A	Soluble	Solid	300.0	16432
MB 880-16432/1-A	Method Blank	Soluble	Solid	300.0	16432
LCS 880-16432/2-A	Lab Control Sample	Soluble	Solid	300.0	16432
LCSD 880-16432/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	16432
890-1807-A-3-D MS	Matrix Spike	Soluble	Solid	300.0	16432
890-1807-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	16432

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1809-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: FS03A
Date Collected: 01/07/22 11:15
Date Received: 01/07/22 13:37

Lab Sample ID: 890-1809-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			16375	01/11/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	16473	01/11/22 12:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	16668	01/12/22 13:10	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	16554	01/12/22 14:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			16424	01/10/22 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	16336	01/11/22 00:06	AJ	XEN MID
Soluble	Leach	DI Leach			16432	01/10/22 13:08	CH	XEN MID
Soluble	Analysis	300.0		5	16543	01/14/22 00:53	CH	XEN MID

Client Sample ID: FS04A
Date Collected: 01/07/22 11:18
Date Received: 01/07/22 13:37

Lab Sample ID: 890-1809-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			16375	01/11/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	16473	01/11/22 13:07	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	16668	01/12/22 13:10	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	16554	01/12/22 14:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			16424	01/10/22 11:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1	16336	01/11/22 00:26	AJ	XEN MID
Soluble	Leach	DI Leach			16432	01/10/22 13:08	CH	XEN MID
Soluble	Analysis	300.0		1	16543	01/14/22 00:59	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1809-1
Project/Site: PLU 25 BD 127H SDG: 31403236.022.0129 TASK 09.02

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BD 127H

Job ID: 890-1809-1
SDG: 31403236.022.0129 TASK 09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1809-1	FS03A	Solid	01/07/22 11:15	01/07/22 13:37	1.65
890-1809-2	FS04A	Solid	01/07/22 11:18	01/07/22 13:37	1.65

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy Inc.
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments

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

Project Name:	PLU 25 BD 127H	Turn Around	
Project Number:	31403236.022.0129 Task 09.02	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	3.4/3.2	Thermometer ID	TAMU07	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-1809 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS03A	S	01/07/22	11:15	1.65	1	X	X	X
FS04A	S	01/07/22	11:18	1.65	1	X	X	X

Work Order Notes

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

Sample Comments

COMPOSITE
COMPOSITE

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Plenner	Ace Cruz	01-07-22 1337	2		
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1809-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1809
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins 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: 890-1809-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1809
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Midland
List Creation: 01/10/22 08:22 AM

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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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1886-1
Laboratory SDG: 31403236.022.0129 TASK 09.02
Client Project/Site: PLU 25 BS 127H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/1/2022 1:32:30 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 25 BS 127H

Laboratory Job ID: 890-1886-1
SDG: 31403236.022.0129 TASK 09.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
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. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Job ID: 890-1886-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1886-1

Receipt
The sample was received on 1/28/2022 12:32 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°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
Method 8015MOD_NM: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-18105 and analytical batch 880-18112 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28). These analytes were biased high in the LCS however, the RPD was in therefore the data was qualified and reported.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-18105 and analytical batch 880-18112 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory sample control laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-10637-A-115-B MS) and (880-10637-A-115-C MSD). Evidence of matrix interferences is not obvious.

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 25 BS 127H

Job ID: 890-1886-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: SS08

Date Collected: 01/28/22 10:32
Date Received: 01/28/22 12:32
Sample Depth: 0.25

Lab Sample ID: 890-1886-1

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		01/31/22 07:24	01/31/22 13:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 13:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 13:07	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/31/22 07:24	01/31/22 13:07	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 13:07	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/31/22 07:24	01/31/22 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*01/31/22 07:24*	*01/31/22 13:07*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/31/22 07:24*	*01/31/22 13:07*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/31/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**79.3**		50.0		mg/Kg			01/31/22 13:01	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		01/31/22 08:28	01/31/22 13:45	1
Diesel Range Organics (Over C10-C28)	**79.3**	***+**	50.0		mg/Kg		01/31/22 08:28	01/31/22 13:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*01/31/22 08:28*	*01/31/22 13:45*	*1*
o-Terphenyl	*95*		*70 - 130*	*01/31/22 08:28*	*01/31/22 13:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**378**		4.97		mg/Kg			01/31/22 18:52	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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)
880-10720-A-1-E MS	Matrix Spike	102	103
880-10720-A-1-F MSD	Matrix Spike Duplicate	96	97
890-1886-1	SS08	139 S1+	104
LCS 880-18098/1-A	Lab Control Sample	102	101
LCSD 880-18098/2-A	Lab Control Sample Dup	98	99
MB 880-18098/5-A	Method Blank	98	95

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)
880-10637-A-115-B MS	Matrix Spike	66 S1-	62 S1-
880-10637-A-115-C MSD	Matrix Spike Duplicate	65 S1-	61 S1-
890-1886-1	SS08	93	95
LCS 880-18105/2-A	Lab Control Sample	86	85
LCSD 880-18105/3-A	Lab Control Sample Dup	86	84
MB 880-18105/1-A	Method Blank	75	80

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1886-1
SDG: 31403236.022.0129 TASK 09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18098/5-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18098

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*

Lab Sample ID: LCS 880-18098/1-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07904		mg/Kg		79	70 - 130		
Toluene			0.100	0.07722		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07702		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1584		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.07663		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-18098/2-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08134		mg/Kg		81	70 - 130	3	35
Toluene			0.100	0.07230		mg/Kg		72	70 - 130	7	35
Ethylbenzene			0.100	0.07478		mg/Kg		75	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1517		mg/Kg		76	70 - 130	4	35
o-Xylene			0.100	0.07439		mg/Kg		74	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-10720-A-1-E MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.100	0.08526		mg/Kg		85	70 - 130		
Toluene	<0.00200	U	0.100	0.08078		mg/Kg		81	70 - 130		

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: 880-10720-A-1-E MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18100 **Prep Batch: 18098**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.100	0.08135		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1659		mg/Kg		83	70 - 130
o-Xylene	<0.00200	U	0.100	0.08128		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-10720-A-1-F MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18100 **Prep Batch: 18098**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.08653		mg/Kg		87	70 - 130	1	35
Toluene	<0.00200	U	0.0996	0.08058		mg/Kg		81	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.07884		mg/Kg		79	70 - 130	3	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1589		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00200	U	0.0996	0.07941		mg/Kg		80	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-18105/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

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		01/31/22 08:28	01/31/22 11:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 11:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*01/31/22 08:28*	*01/31/22 11:07*	*1*
o-Terphenyl	*80*		*70 - 130*	*01/31/22 08:28*	*01/31/22 11:07*	*1*

Lab Sample ID: LCS 880-18105/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1112		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1380	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: LCS 880-18105/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: LCSD 880-18105/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	978.8		mg/Kg		98	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1214		mg/Kg		121	70 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 880-10637-A-115-B MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1024		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	90.7	*+ F1	997	739.3	F1	mg/Kg		65	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	66	S1-	70 - 130
o-Terphenyl	62	S1-	70 - 130

Lab Sample ID: 880-10637-A-115-C MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

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	<49.9	U	996	861.7		mg/Kg		83	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	90.7	*+ F1	996	706.0	F1	mg/Kg		62	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	65	S1-	70 - 130
o-Terphenyl	61	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18091/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/31/22 15:08	1

Lab Sample ID: LCS 880-18091/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-18091/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	268.7		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-1862-A-4-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	281		249	549.6		mg/Kg		108	90 - 110		

Lab Sample ID: 890-1862-A-4-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	281		249	546.4		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

GC VOA

Prep Batch: 18098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Total/NA	Solid	5035	
MB 880-18098/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 18100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Total/NA	Solid	8021B	18098
MB 880-18098/5-A	Method Blank	Total/NA	Solid	8021B	18098
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	8021B	18098
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18098
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	18098
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	18098

Analysis Batch: 18172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 18105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Total/NA	Solid	8015NM Prep	
MB 880-18105/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18105/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18105/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10637-A-115-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10637-A-115-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Total/NA	Solid	8015B NM	18105
MB 880-18105/1-A	Method Blank	Total/NA	Solid	8015B NM	18105
LCS 880-18105/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18105
LCSD 880-18105/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18105
880-10637-A-115-B MS	Matrix Spike	Total/NA	Solid	8015B NM	18105
880-10637-A-115-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18105

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Soluble	Solid	DI Leach	
MB 880-18091/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

HPLC/IC (Continued)

Leach Batch: 18091 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 18196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1886-1	SS08	Soluble	Solid	300.0	18091
MB 880-18091/1-A	Method Blank	Soluble	Solid	300.0	18091
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	300.0	18091
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18091
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	300.0	18091
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	18091

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1886-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: SS08
Date Collected: 01/28/22 10:32
Date Received: 01/28/22 12:32

Lab Sample ID: 890-1886-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			18098	01/31/22 07:24	KL	XEN MID
Total/NA	Analysis	8021B		1	18100	01/31/22 13:07	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	18172	01/31/22 13:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	18170	01/31/22 13:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			18105	01/31/22 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	18112	01/31/22 13:45	AJ	XEN MID
Soluble	Leach	DI Leach			18091	01/29/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1	18196	01/31/22 18:52	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1886-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1886-1
SDG: 31403236.022.0129 TASK 09.02

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1886-1
SDG: 31403236.022.0129 TASK 09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1886-1	SS08	Solid	01/28/22 10:32	01/28/22 12:32	0.25

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E Green St
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 8820
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments

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

Project Name:	PLU 25 BS 127H	Turn Around	
Project Number:	31403236.022.0129 Task 09.02	Routine	☐
P.O. Number:		Rush:	24 HR
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT					
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No		
Temperature (°C):	2.0 / 1.8	Thermometer ID	IWM-007		
Received Intact:	(Yes) No				
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2		
Sample Custody Seals:	Yes No (N/A)	Total Containers:			

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015) 24 RUSH	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
SS08	S	01/28/22	10:32	0.25	1	X	X	X

890-1886 Chain of Custody

Work Order Notes

AFE: DD.2017.03804.CAP.CM
API: 30-015-45854

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

Sample Comments

DISCRETE

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner	Cire Cat	1.28.22 1232	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1886-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1886
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins 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: 890-1886-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1886
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 01/31/22 08:21 AM

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").	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1887-1
Laboratory SDG: 31403236.022.0129 TASK 09.02
Client Project/Site: PLU 25 BS 127H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/1/2022 1:32:53 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 25 BS 127H

Laboratory Job ID: 890-1887-1
SDG: 31403236.022.0129 TASK 09.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
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. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Job ID: 890-1887-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1887-1

Receipt
The sample was received on 1/28/2022 12:32 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°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
Method 8015MOD_NM: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-18105 and analytical batch 880-18112 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28). These analytes were biased high in the LCS however, the RPD was in therefore the data was qualified and reported.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-18105 and analytical batch 880-18112 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory sample control laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-10637-A-115-B MS) and (880-10637-A-115-C MSD). Evidence of matrix interferences is not obvious.

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 25 BS 127H

Job ID: 890-1887-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: SS07

Date Collected: 01/28/22 10:30
Date Received: 01/28/22 12:32
Sample Depth: 0.25

Lab Sample ID: 890-1887-1

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		01/31/22 07:24	01/31/22 13:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 13:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 13:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 13:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 13:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*01/31/22 07:24*	*01/31/22 13:28*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*01/31/22 07:24*	*01/31/22 13:28*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			01/31/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**70.7**		50.0		mg/Kg			01/31/22 13:01	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		01/31/22 08:28	01/31/22 14:07	1
Diesel Range Organics (Over C10-C28)	**70.7**	***+**	50.0		mg/Kg		01/31/22 08:28	01/31/22 14:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/31/22 08:28*	*01/31/22 14:07*	*1*
o-Terphenyl	*90*		*70 - 130*	*01/31/22 08:28*	*01/31/22 14:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**307**		5.00		mg/Kg			01/31/22 18:37	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1887-1
SDG: 31403236.022.0129 TASK 09.02

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)
880-10720-A-1-E MS	Matrix Spike	102	103
880-10720-A-1-F MSD	Matrix Spike Duplicate	96	97
890-1887-1	SS07	113	94
LCS 880-18098/1-A	Lab Control Sample	102	101
LCSD 880-18098/2-A	Lab Control Sample Dup	98	99
MB 880-18098/5-A	Method Blank	98	95

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)
880-10637-A-115-B MS	Matrix Spike	66 S1-	62 S1-
880-10637-A-115-C MSD	Matrix Spike Duplicate	65 S1-	61 S1-
890-1887-1	SS07	88	90
LCS 880-18105/2-A	Lab Control Sample	86	85
LCSD 880-18105/3-A	Lab Control Sample Dup	86	84
MB 880-18105/1-A	Method Blank	75	80

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1887-1
SDG: 31403236.022.0129 TASK 09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18098/5-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18098

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*

Lab Sample ID: LCS 880-18098/1-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07904		mg/Kg		79	70 - 130		
Toluene			0.100	0.07722		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07702		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1584		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.07663		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-18098/2-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08134		mg/Kg		81	70 - 130	3	35
Toluene			0.100	0.07230		mg/Kg		72	70 - 130	7	35
Ethylbenzene			0.100	0.07478		mg/Kg		75	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1517		mg/Kg		76	70 - 130	4	35
o-Xylene			0.100	0.07439		mg/Kg		74	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-10720-A-1-E MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.100	0.08526		mg/Kg		85	70 - 130		
Toluene	<0.00200	U	0.100	0.08078		mg/Kg		81	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: 880-10720-A-1-E MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18100 **Prep Batch: 18098**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.100	0.08135		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1659		mg/Kg		83	70 - 130
o-Xylene	<0.00200	U	0.100	0.08128		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-10720-A-1-F MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18100 **Prep Batch: 18098**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.08653		mg/Kg		87	70 - 130	1	35
Toluene	<0.00200	U	0.0996	0.08058		mg/Kg		81	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.07884		mg/Kg		79	70 - 130	3	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1589		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00200	U	0.0996	0.07941		mg/Kg		80	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-18105/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

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		01/31/22 08:28	01/31/22 11:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 11:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*01/31/22 08:28*	*01/31/22 11:07*	*1*
o-Terphenyl	*80*		*70 - 130*	*01/31/22 08:28*	*01/31/22 11:07*	*1*

Lab Sample ID: LCS 880-18105/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1112		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1380	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: LCS 880-18105/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: LCSD 880-18105/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	978.8		mg/Kg		98	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1214		mg/Kg		121	70 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 880-10637-A-115-B MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1024		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	90.7	*+ F1	997	739.3	F1	mg/Kg		65	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	66	S1-	70 - 130
o-Terphenyl	62	S1-	70 - 130

Lab Sample ID: 880-10637-A-115-C MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

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	<49.9	U	996	861.7		mg/Kg		83	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	90.7	*+ F1	996	706.0	F1	mg/Kg		62	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	65	S1-	70 - 130
o-Terphenyl	61	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18091/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/31/22 15:08	1

Lab Sample ID: LCS 880-18091/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-18091/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	268.7		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-1862-A-4-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	281		249	549.6		mg/Kg		108	90 - 110		

Lab Sample ID: 890-1862-A-4-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	281		249	546.4		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

GC VOA

Prep Batch: 18098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Total/NA	Solid	5035	
MB 880-18098/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 18100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Total/NA	Solid	8021B	18098
MB 880-18098/5-A	Method Blank	Total/NA	Solid	8021B	18098
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	8021B	18098
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18098
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	18098
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	18098

Analysis Batch: 18172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 18105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-18105/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18105/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18105/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10637-A-115-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10637-A-115-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Total/NA	Solid	8015B NM	18105
MB 880-18105/1-A	Method Blank	Total/NA	Solid	8015B NM	18105
LCS 880-18105/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18105
LCSD 880-18105/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18105
880-10637-A-115-B MS	Matrix Spike	Total/NA	Solid	8015B NM	18105
880-10637-A-115-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18105

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Soluble	Solid	DI Leach	
MB 880-18091/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

HPLC/IC (Continued)

Leach Batch: 18091 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 18196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1887-1	SS07	Soluble	Solid	300.0	18091
MB 880-18091/1-A	Method Blank	Soluble	Solid	300.0	18091
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	300.0	18091
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18091
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	300.0	18091
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	18091

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1887-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: SS07
Date Collected: 01/28/22 10:30
Date Received: 01/28/22 12:32

Lab Sample ID: 890-1887-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			18098	01/31/22 07:24	KL	XEN MID
Total/NA	Analysis	8021B		1	18100	01/31/22 13:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	18172	01/31/22 13:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	18170	01/31/22 13:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			18105	01/31/22 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	18112	01/31/22 14:07	AJ	XEN MID
Soluble	Leach	DI Leach			18091	01/29/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1	18196	01/31/22 18:37	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1887-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1887-1
SDG: 31403236.022.0129 TASK 09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1887-1	SS07	Solid	01/28/22 10:30	01/28/22 12:32	0.25

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

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Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E Green St
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 8820
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Work Order Comments

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

Project Name:	PLU 25 BS 127H	Turn Around	
Project Number:	31403236.022.0129 Task 09.02	Routine	☐
P.O. Number:		Rush:	24HR
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.0/1.8	Thermometer ID	TM007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015) 24 RUSH	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS07	S	01/28/22	10:30	0.25	1	X	X	X	DISCRETE

890-1887 Chain of Custody

Work Order Notes

AFE: DD.2017.03804.CAP.CM
API: 30-015-45854

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	pbenner		1.28.22 1232			
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1887-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1887
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins 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: 890-1887-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1887
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 01/31/22 08:21 AM

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").	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1888-1
Laboratory SDG: 31403236.022.0129 TASK 09.02
Client Project/Site: PLU 25 BS 127H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
2/1/2022 1:33:11 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 25 BS 127H

Laboratory Job ID: 890-1888-1
SDG: 31403236.022.0129 TASK 09.02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
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. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Job ID: 890-1888-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1888-1

Receipt
The sample was received on 1/28/2022 12:32 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°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
Method 8015MOD_NM: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 880-18105 and analytical batch 880-18112 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28). These analytes were biased high in the LCS however, the RPD was in therefore the data was qualified and reported.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-18105 and analytical batch 880-18112 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory sample control laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-10637-A-115-B MS) and (880-10637-A-115-C MSD). Evidence of matrix interferences is not obvious.

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 25 BS 127H

Job ID: 890-1888-1
SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: SS06
Date Collected: 01/28/22 08:50
Date Received: 01/28/22 12:32
Sample Depth: 0.25

Lab Sample ID: 890-1888-1
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		01/31/22 07:24	01/31/22 13:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 13:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 13:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/31/22 07:24	01/31/22 13:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/31/22 07:24	01/31/22 13:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/31/22 07:24	01/31/22 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*140*	*S1+*	*70 - 130*	*01/31/22 07:24*	*01/31/22 13:48*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*01/31/22 07:24*	*01/31/22 13:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/31/22 13:52	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**69.2**		50.0		mg/Kg			01/31/22 13:01	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		01/31/22 08:28	01/31/22 14:28	1
Diesel Range Organics (Over C10-C28)	**69.2**	***+**	50.0		mg/Kg		01/31/22 08:28	01/31/22 14:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*01/31/22 08:28*	*01/31/22 14:28*	*1*
o-Terphenyl	*89*		*70 - 130*	*01/31/22 08:28*	*01/31/22 14:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**235**		4.96		mg/Kg			01/31/22 18:44	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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)
880-10720-A-1-E MS	Matrix Spike	102	103
880-10720-A-1-F MSD	Matrix Spike Duplicate	96	97
890-1888-1	SS06	140 S1+	104
LCS 880-18098/1-A	Lab Control Sample	102	101
LCSD 880-18098/2-A	Lab Control Sample Dup	98	99
MB 880-18098/5-A	Method Blank	98	95

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)
880-10637-A-115-B MS	Matrix Spike	66 S1-	62 S1-
880-10637-A-115-C MSD	Matrix Spike Duplicate	65 S1-	61 S1-
890-1888-1	SS06	85	89
LCS 880-18105/2-A	Lab Control Sample	86	85
LCSD 880-18105/3-A	Lab Control Sample Dup	86	84
MB 880-18105/1-A	Method Blank	75	80

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1888-1
SDG: 31403236.022.0129 TASK 09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-18098/5-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18098

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/31/22 07:24	01/31/22 10:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/31/22 07:24	01/31/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/31/22 07:24*	*01/31/22 10:43*	*1*

Lab Sample ID: LCS 880-18098/1-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07904		mg/Kg		79	70 - 130		
Toluene			0.100	0.07722		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07702		mg/Kg		77	70 - 130		
m-Xylene & p-Xylene			0.200	0.1584		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.07663		mg/Kg		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-18098/2-A
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 18098

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08134		mg/Kg		81	70 - 130	3	35
Toluene			0.100	0.07230		mg/Kg		72	70 - 130	7	35
Ethylbenzene			0.100	0.07478		mg/Kg		75	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1517		mg/Kg		76	70 - 130	4	35
o-Xylene			0.100	0.07439		mg/Kg		74	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 880-10720-A-1-E MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.100	0.08526		mg/Kg		85	70 - 130		
Toluene	<0.00200	U	0.100	0.08078		mg/Kg		81	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1888-1
SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: 880-10720-A-1-E MS
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.100	0.08135		mg/Kg		81	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1659		mg/Kg		83	70 - 130
o-Xylene	<0.00200	U	0.100	0.08128		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-10720-A-1-F MSD
Matrix: Solid
Analysis Batch: 18100

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 18098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.08653		mg/Kg		87	70 - 130	1	35
Toluene	<0.00200	U	0.0996	0.08058		mg/Kg		81	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.07884		mg/Kg		79	70 - 130	3	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1589		mg/Kg		80	70 - 130	4	35
o-Xylene	<0.00200	U	0.0996	0.07941		mg/Kg		80	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-18105/1-A
Matrix: Solid
Analysis Batch: 18112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 18105

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		01/31/22 08:28	01/31/22 11:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 11:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/31/22 08:28	01/31/22 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*01/31/22 08:28*	*01/31/22 11:07*	*1*
o-Terphenyl	*80*		*70 - 130*	*01/31/22 08:28*	*01/31/22 11:07*	*1*

Lab Sample ID: LCS 880-18105/2-A
Matrix: Solid
Analysis Batch: 18112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 18105

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1112		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1380	*+	mg/Kg		138	70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

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

Lab Sample ID: LCS 880-18105/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	85		70 - 130

Lab Sample ID: LCSD 880-18105/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	978.8		mg/Kg		98	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1214		mg/Kg		121	70 - 130	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 880-10637-A-115-B MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1024		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	90.7	*+ F1	997	739.3	F1	mg/Kg		65	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	66	S1-	70 - 130
o-Terphenyl	62	S1-	70 - 130

Lab Sample ID: 880-10637-A-115-C MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 18112 **Prep Batch: 18105**

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	<49.9	U	996	861.7		mg/Kg		83	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	90.7	*+ F1	996	706.0	F1	mg/Kg		62	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	65	S1-	70 - 130
o-Terphenyl	61	S1-	70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-18091/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			01/31/22 15:08	1

Lab Sample ID: LCS 880-18091/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.4		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-18091/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	268.7		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-1862-A-4-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	281		249	549.6		mg/Kg		108	90 - 110		

Lab Sample ID: 890-1862-A-4-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 18196

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	281		249	546.4		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

GC VOA

Prep Batch: 18098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Total/NA	Solid	5035	
MB 880-18098/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 18100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Total/NA	Solid	8021B	18098
MB 880-18098/5-A	Method Blank	Total/NA	Solid	8021B	18098
LCS 880-18098/1-A	Lab Control Sample	Total/NA	Solid	8021B	18098
LCSD 880-18098/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	18098
880-10720-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	18098
880-10720-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	18098

Analysis Batch: 18172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 18105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-18105/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-18105/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-18105/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-10637-A-115-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-10637-A-115-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 18112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Total/NA	Solid	8015B NM	18105
MB 880-18105/1-A	Method Blank	Total/NA	Solid	8015B NM	18105
LCS 880-18105/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	18105
LCSD 880-18105/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	18105
880-10637-A-115-B MS	Matrix Spike	Total/NA	Solid	8015B NM	18105
880-10637-A-115-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	18105

Analysis Batch: 18170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 18091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Soluble	Solid	DI Leach	
MB 880-18091/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

HPLC/IC (Continued)

Leach Batch: 18091 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 18196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1888-1	SS06	Soluble	Solid	300.0	18091
MB 880-18091/1-A	Method Blank	Soluble	Solid	300.0	18091
LCS 880-18091/2-A	Lab Control Sample	Soluble	Solid	300.0	18091
LCSD 880-18091/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	18091
890-1862-A-4-E MS	Matrix Spike	Soluble	Solid	300.0	18091
890-1862-A-4-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	18091

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Client Sample ID: SS06 **Lab Sample ID: 890-1888-1**
Date Collected: 01/28/22 08:50 **Matrix: Solid**
Date Received: 01/28/22 12:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			18098	01/31/22 07:24	KL	XEN MID
Total/NA	Analysis	8021B		1	18100	01/31/22 13:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	18172	01/31/22 13:52	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	18170	01/31/22 13:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			18105	01/31/22 08:28	DM	XEN MID
Total/NA	Analysis	8015B NM		1	18112	01/31/22 14:28	AJ	XEN MID
Soluble	Leach	DI Leach			18091	01/29/22 10:41	CH	XEN MID
Soluble	Analysis	300.0		1	18196	01/31/22 18:44	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

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
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc. Job ID: 890-1888-1
Project/Site: PLU 25 BS 127H SDG: 31403236.022.0129 TASK 09.02

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (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.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 25 BS 127H

Job ID: 890-1888-1
SDG: 31403236.022.0129 TASK 09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1888-1	SS06	Solid	01/28/22 08:50	01/28/22 12:32	0.25

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	WSP USA	Company Name:	XTO Energy, Inc.
Address:	3300 North A Street Building 1, unit 222	Address:	3104 E Green St
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 8820
Phone:	817-683-2503 Email:	Kalei.jennings@wsp.com	

Work Order Comments

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

Project Name:	PLU 25 BS 127H	Turn Around	
Project Number:	31403236.022.0129 Task 09.02	Routine ☐	
P.O. Number:		Rush: 24 HR	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.0 / 1.8	Thermometer ID	TNM007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015) 24 RUSH	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS06	S	01/28/22	8:50	0.25	1	X	X	X	DISCRETE

890-1888 Chain of Custody

Work Order Notes

AFE: DD.2017.03804.CAP.CM
API: 30-015-45854

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

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

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner	Clue Cup	1.28.22 1232	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1888-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1888
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins 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: 890-1888-1
SDG Number: 31403236.022.0129 TASK 09.02

Login Number: 1888
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 01/31/22 08:21 AM

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").	N/A	

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 80526

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 80526
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please apply 19.15.29.13 NMAC when P&A of site.	2/16/2022