

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	NAPP2132248577
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

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

### Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Adrian Baker</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>11/18/2021</u>

NAPP2132248577

<b>Location:</b>	<b>Poker Lake Unit 423 TB</b>	
<b>Spill Date:</b>	<b>11/14/2021</b>	
<b>Area 1</b>		
Approximate Area =	719.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =	0.03	
<b>VOLUME OF LEAK</b>		
Total Crude Oil =	0.00	bbls
Total Produced Water =	20.64	bbls
<b>TOTAL VOLUME OF LEAK</b>		
Total Crude Oil =	0.00	bbls
Total Produced Water =	20.64	bbls
<b>TOTAL VOLUME RECOVERED</b>		
Total Crude Oil =	0.00	bbls
Total Produced Water =	20.00	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

Action 62594

**CONDITIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 62594
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
marcus	None	11/18/2021



Incident ID	NAPP2132248577
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## Site Assessment/Characterization

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

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

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

Printed Name: \_\_\_\_\_ Adrian Baker \_\_\_\_\_

Title: \_\_\_\_\_ Environmental Coordinator \_\_\_\_\_

Signature: \_\_\_\_\_  


Date: \_\_\_\_\_ 02/12/2022 \_\_\_\_\_

Email: \_\_\_\_\_ adrian.baker@exxonmobil.com \_\_\_\_\_

Telephone: \_\_\_\_\_ (432)-236-3808 \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_

Date: \_\_\_\_\_

Incident ID	NAPP2132248577
District RP	
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Application ID	

## Closure

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

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

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

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

Printed Name: \_\_\_\_\_ Adrian Baker \_\_\_\_\_ Title: \_\_\_\_\_ Environmental Coordinator \_\_\_\_\_

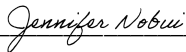
Signature: \_\_\_\_\_  \_\_\_\_\_ Date: \_\_\_\_\_ 02/12/2022 \_\_\_\_\_

email: \_\_\_\_\_ adrian.baker@exxonmobil.com \_\_\_\_\_ Telephone: \_\_\_\_\_ (432)-236-3808 \_\_\_\_\_

### OCD 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: \_\_\_\_\_  \_\_\_\_\_ 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 9, 2022

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

**RE: Closure Request  
Poker Lake Unit 423  
Incident Number nAPP2132248577  
Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Poker Lake Unit (PLU) 423 (Site) in Unit I, Section 19, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following the release of produced water at the Site. Based on the excavation activities and soil sample laboratory analytical results, XTO is submitting this Closure Request, and requesting no further action (NFA) for Incident Number nAPP2132248577.

## **RELEASE BACKGROUND**

On November 14, 2021, corrosion on the 4-inch main water dump line resulted in the release of 20.64 barrels (bbls) of produced water onto the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 20 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 November 18, 2021. The release was assigned Incident Number nAPP2132248577.

## **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. On February 4, 2020, WSP installed a soil boring (C-4394) within 0.5 miles of the Site utilizing a sonic drilling rig. Soil boring C-4394 was drilled to a depth of 110 feet bgs. A WSP geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Attachment 1. No moisture or groundwater was encountered during drilling activities. The location of the borehole is approximately 192 feet southwest of the Site and is depicted on Figure 1. The



borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 110 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 900 feet west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

### **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 December 22, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Two preliminary assessment samples (SS01 and SS02) were collected within the release extent from a depth of 0.5 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization 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 sample SS01 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 SS02 indicated that chloride concentrations exceeded the Closure Criteria; benzene, BTEX, TPH-GRO/TPH-DRO, and TPH concentrations were compliant with the Closure Criteria. Based on visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

### **DELINEATION ACTIVITIES AND ANALYTICAL RESULTS**

On January 18, 2022, WSP personnel returned to the Site to oversee delineation and excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples.

Potholes PH01 and PH02 were advanced via backhoe within the release extent to a depth of 2 feet bgs to assess the vertical extent of impacted soil. Discrete delineation samples were collected from each pothole (PH01/PH01A and PH02/PH02A) at depths of 1-foot and 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations were logged on lithologic/soil sampling logs, which are included in Attachment 2. Additionally, soil samples SS03 through SS07 were collected from a depth of 0.5 feet bgs around the release extent to confirm the lateral extent of the release. The pothole 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.

Laboratory analytical results for pothole delineation samples PH01/PH01A and PH02/PH02A indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for soil samples SS03 through SS07, collected around the release extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the most stringent Table 1 Closure Criteria.

### **EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS**

On January 18, 2022, upon completion of delineation activities, excavation was completed to remove surficial staining in the release footprint and remove impacted soil in the area surrounding preliminary soil sample SS02. Excavation activities were performed using a backhoe and hydro-vacuum. 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-foot bgs.



Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS04 were collected from the floor of the excavation, from a depth of 1-foot 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. The excavation extent and excavation soil sample locations are presented on Figure 4. Photographic documentation was completed during the Site visits and a photographic log is included in Attachment 3.

Laboratory analytical results for excavation soil samples FS01 through FS04 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

The excavation area measured approximately 678 square feet. A total of approximately 25 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was backfilled.

## **CLOSURE REQUEST**

Site assessment and excavation activities were conducted at the Site to address the November 14, 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 nAPP2132248577.



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

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads 'Nihaar Katoch'.

Nihaar Katoch  
Assistant Consultant, Geologist

A handwritten signature in black ink that reads 'Aimee Cole'.

Aimee Cole  
Senior Consultant, Environmental Scientist

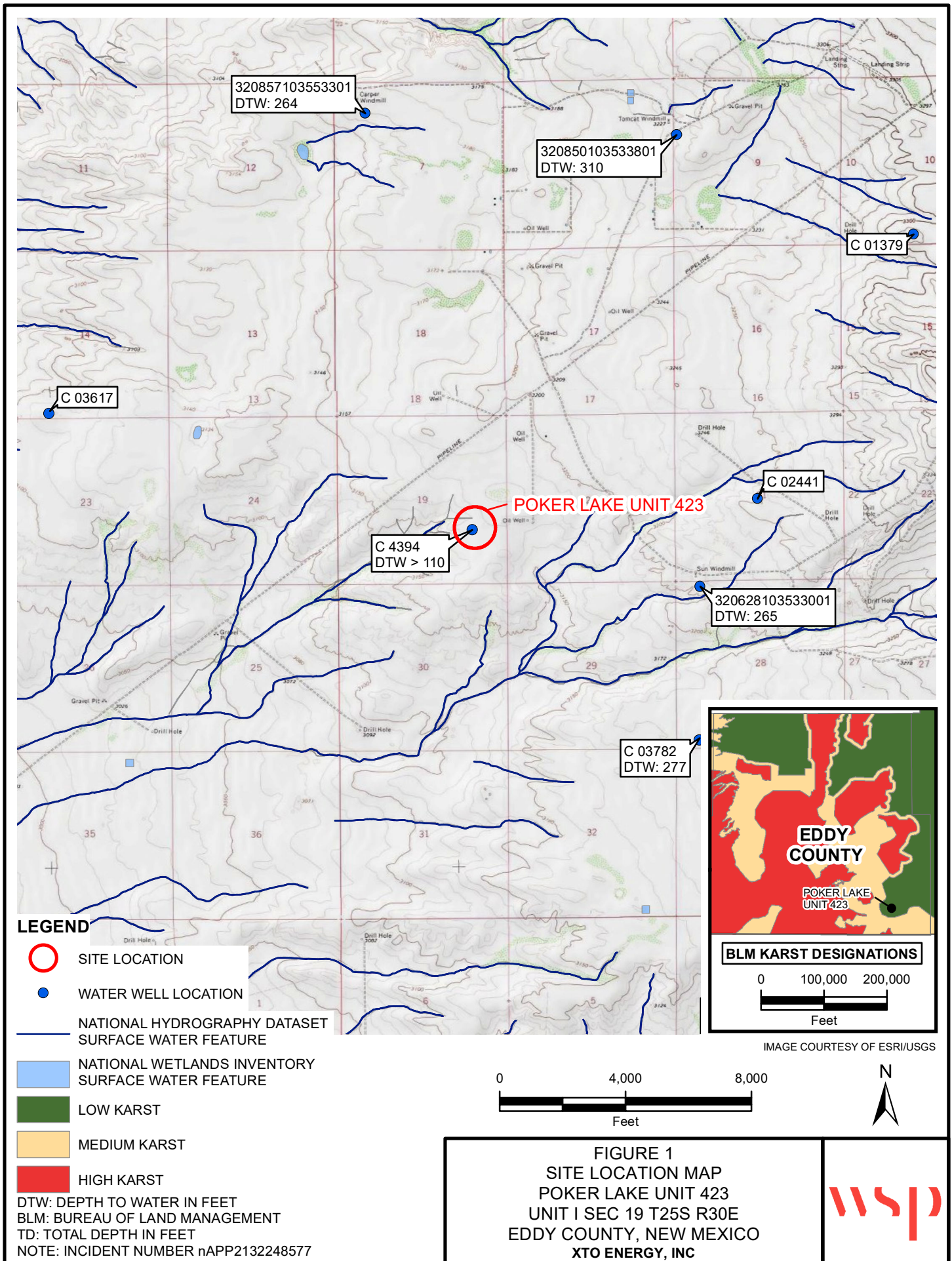
cc: Shelby Pennington, XTO  
Adrian Baker, XTO  
Bureau of Land Management

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**

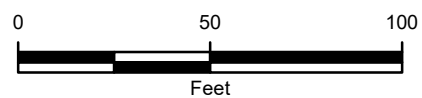
RELEASE LOCATION

PRELIMINARY SOIL SAMPLE WITH CONCENTRATIONS  
EXCEEDING APPLICABLE CLOSURE CRITERIAPRELIMINARY SOIL SAMPLE IN COMPLIANCE  
WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

NOTE: INCIDENT NUMBER nAPP2132248577  
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)  
 TEXT: INDICATES SOIL REPRESENTED BY SAMPLE  
 THAT WAS REMOVED

IMAGE COURTESY OF ESRI



**FIGURE 2**  
**PRELIMINARY SOIL SAMPLE LOCATIONS**  
**POKER LAKE UNIT 423**  
**UNIT 1 SEC 19 T25S R30E**  
**EDDY COUNTY, NEW MEXICO**  
**XTO ENERGY, INC.**







IMAGE COURTESY OF ESRI

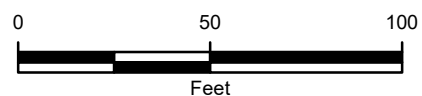
**LEGEND**

RELEASE LOCATION

DELINEATION SOIL SAMPLE IN COMPLIANCE  
WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

NOTE: INCIDENT NUMBER nAPP2132248577  
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)  
 TEXT: INDICATES SOIL REPRESENTED BY SAMPLE  
 THAT WAS REMOVED



**FIGURE 3**  
**DELINEATION SOIL SAMPLE LOCATIONS**  
**POKER LAKE UNIT 423**  
**UNIT I SEC 19 T25S R30E**  
**EDDY COUNTY, NEW MEXICO**  
**XTO ENERGY, INC.**

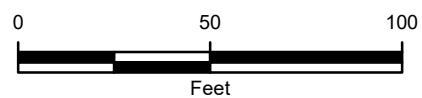




IMAGE COURTESY OF ESRI

**LEGEND**

- X** RELEASE LOCATION
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- EXCAVATION EXTENT



NOTE: INCIDENT NUMBER nAPP2132248577  
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 4**  
**EXCAVATION SOIL SAMPLE LOCATIONS**  
 POKER LAKE UNIT 423  
 UNIT I SEC 19 T25S R30E  
 EDDY COUNTY, NEW MEXICO  
 XTO ENERGY, INC.



TABLES

Table 1

**Soil Analytical Results**  
**Poker Lake Unit 423**  
**Incident Number: nAPP2132248577**  
**Eddy County, New Mexico**

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table 1 Closure Criteria (NMAC 19.15.29)</b>			10	50	NE	NE	NE	<b>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Preliminary Soil Samples</b>										
SS01	12/22/2021	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	9,400
SS02	12/22/2021	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	<b>31,600</b>
<b>Delineation Soil Samples</b>										
SS03	01/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	12.1
SS04	01/18/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	17.4
SS05	01/18/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	18.2
SS06	01/18/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	17.7
SS07	01/18/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	15.2
PH01	01/18/2022	1	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	154
PH01A	01/18/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	221
PH02	01/18/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,720
PH02A	01/18/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	690
<b>Excavation Soil Samples</b>										
FS01	01/18/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	726
FS02	01/18/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	6,170
FS03	01/18/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	160
FS04	01/18/2022	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	613

**Notes:**

ft - feet/foot

mg/Kg - milligrams per kilogram

bgs - below ground surface

GRO - Gasoline range organics

DRO - Diesel range organics

ORO - Oil range organics

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes

TPH - Total petroleum hydrocarbons

&lt; - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

NMOCD - New Mexico Oil Conservation Division


NMAC - New Mexico Administrative Code


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

Greyed data represents samples that were excavated


ATTACHMENT 1: REFERENCED WELL RECORDS



		<b>LT Environmental, Inc.</b> 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <b>MW01 C 4394</b>		Date: <b>2/4/2020</b>		
				Project Name: <b>PLU 423</b>		RP Number: <b>ZRP-3790</b>		
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>				Logged By: <b>FS</b>		Method: <b>SONIC</b>		
Lat/Long:		Field Screening: <del>CHLORIDES, PID</del>		Hole Diameter: <b>4"/6"</b>		Total Depth: <b>110'</b>		
Comments: <b>No sampling, Lithology remarks only</b>								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					1			hydrovac excavated (refusal @ 1')
					2			2.5' SAND, dry, well graded, coarse-fine graind,
					3		SW-S	light brwn - tan, no stain, no odor
					4			5' few silty sand pockets, reddish brwn, no plas, non cohesive
					5			
					6			
					7		SP	6' SAND, dry, poorly graded, light brwn - brwn, fine - very fine
					8			
					9			7.5' some mod. consol. ss
					10		SW-S	light brwn - brwn, sub rounded
					11			
					12			10' abundant ss 10-11' color change
					13		SP	12' ss gravel? absent tan-off white
					14			16' abundant ss gravel 13' back t/ (mod consol) light brwn -
					15			19' abundant - some brwn
					16			21.5' sandstone, light, abundant
					17		SW-S	brwn - tan, dry, mod well consolidated
					18			23' sandstone chunks absent
					19			
					20			
					21			
					22			
					23			
					24			
					25			

 <b>LT Environmental, Inc.</b> 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <b>MW01 C 4394</b>	Date: <b>2/4/2020</b>					
		Project Name: <b>PLU 423</b>	RP Number: <del>2RP-2674</del> <b>2RP-3790</b>					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>		Logged By: <b>FS</b>	Method: <b>SONIC</b>					
Lat/Long:		Field Screening: <del>CHLORIDES, PID</del>	Hole Diameter: <b>4 1/8"</b>					
			Total Depth: <b>110'</b>					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
					26			
					27			
D			Z		28		SP	27.5' SAND, dry, light brown-tan, poorly graded, fine-very fine grey-grey
					29			30' trace light brown-tan caliche pebbles (gravel), rounded
			Z		30			
					31			31' caliche pebbles absent
			Z		32			
					33			31.5' color change light brown-reddish brown
			Z		34			
					35			33-34' abundant ss chunks, mod consol
M			Z		36			35' ss chunks absent
					37		SW-S	
			Z		38			36' some clay pockets, reddish brown, few pebbles, rounded-subrounded, grey-light grey, few laminations w/ clay, caliche, dolomite?
					39			
			Z		40			
					41			
			Z		42			42.5' clay laminations, trace, reddish brown
					43			
			Z		44			44' color change, light brown-tan, SILTY sand
					45			
			Z		46		SP-SM	44.5' some SILTY sand, light brown-tan, no plasticity, non cohesive, trace high plas clay nodules, reddish brown
					47			
			Z		48			
					49			48.5' low plas clay band, orange (35-40 mm)
D					50			49.5' faint yellow band, (15-20 mm)

 rig adding  
 water

 <b>LT Environmental, Inc.</b> 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: <b>MW01 C 4394</b>	Date: <b>2/4/2020</b>					
		Project Name: <b>PLU 423</b>	RP Number: <b>ZRP-3790</b>					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>		Logged By: <b>FS</b>	Method: <b>sonic</b>					
Lat/Long:		Field Screening: <b>CHLORIDES, PH</b>	Hole Diameter: <b>4" / 6"</b>					
Total Depth: <b>110'</b>								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
U			Z		51		SP	51.5' trace, high plas clay nodules
U			Z		52			
U			Z		53			53-54' some silty ss, poorly consolidated
M			Z		54			
M			Z		55			55.5' color change tan-grey band (30mm)
M			Z		56			
M			Z		57			59.5' SILTY sand, light brwn-brwn, moist, no plas, non cohesive, no stain
M			Z		58			
M			Z		59			
M			Z		60		SM	62' more consolidated
U			Z		61			64' dark brwn color change, silty clay nodules
U			Z		62		sm-S	
M			Z		63			66' pockets of silty clay brwn-green
M			Z		64			
M			Z		65			68' low plas clay pockets some, few low plas clay laminations
U			Z		66			
U			Z		67			
U			Z		68			71' SILTY sand, dry, no plas, non cohesive, light brwn-tan
U			Z		69			
U			Z		70			74' trace caliche pebbles, light grey-grey
U			Z		71		SM	
U			Z		72			
U			Z		73			
U			Z		74			
U			Z		75			





LT Environmental, Inc.  
508 West Stevens Street  
Carlsbad, New Mexico 88220

Compliance · Engineering · Remediation

Identifier: MWDI C 4394

Date: 2/4/2020

Project Name: PLU 423

RP Number: ZRP-3790

### LITHOLOGIC / SOIL SAMPLING LOG

Lat/Long:

Field Screening: CHLORIDES, PID

Logged By: FS, BB


Method: sonic

Hole Diameter: 6 1/4"

Total Depth: 110'

Comments:

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

 <b>LT Environmental, Inc.</b> 508 West Stevens Street Carlsbad, New Mexico 88220 Compliance · Engineering · Remediation		Identifier: MWO F 4394	Date: 2/5/2020					
		Project Name: PLU 423	RP Number: 2RP-3790					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>		Logged By: BP	Method: Sonic					
Lat/Long:		Field Screening: CHLORIDES, PID.	Hole Diameter: 6" / 4"					
			Total Depth: 110'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Depth	Soil/Rock Type	Lithology/Remarks
D			N		101		CH SP-S	101' - 105' SANDSTONE, tan-light brown, dry, moderately consolidated, calcareous cemented, poorly graded, no stain, no odor.
D			N		102			
D			N		103			
D			N		104			
m			N		105		CH	105' - 110' CLAY, moist, dark brown - brown, high plasticity, cohesive, thin sand laminations, no stain, no odor.
D			N		106			
D			N		107			
m			N		108			107' - 109' tan - light brown well consolidated fine green sandstone stringer.
			N		109			
					110			
					111		TD @ 110'	TD @ 110'
					112			
					113			
					114			
					115			
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					119			
					120			
					121			
					122			
					123			
					124			
					125			



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## National Water Information System: Web Interface

USGS Water Resources (Cooperator Access)

Data Category:

Groundwater

Geographic Area:

United States

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Click to hide News Bulletins

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

Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

## Search Results -- 1 sites found

site\_no list =

- 320628103533001

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

## USGS 320628103533001 25S.30E.21.333424

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°06'28", Longitude 103°53'30" NAD27

Land-surface elevation 3,207 feet above NAVD88

The depth of the well is 288 feet below land surface.

This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

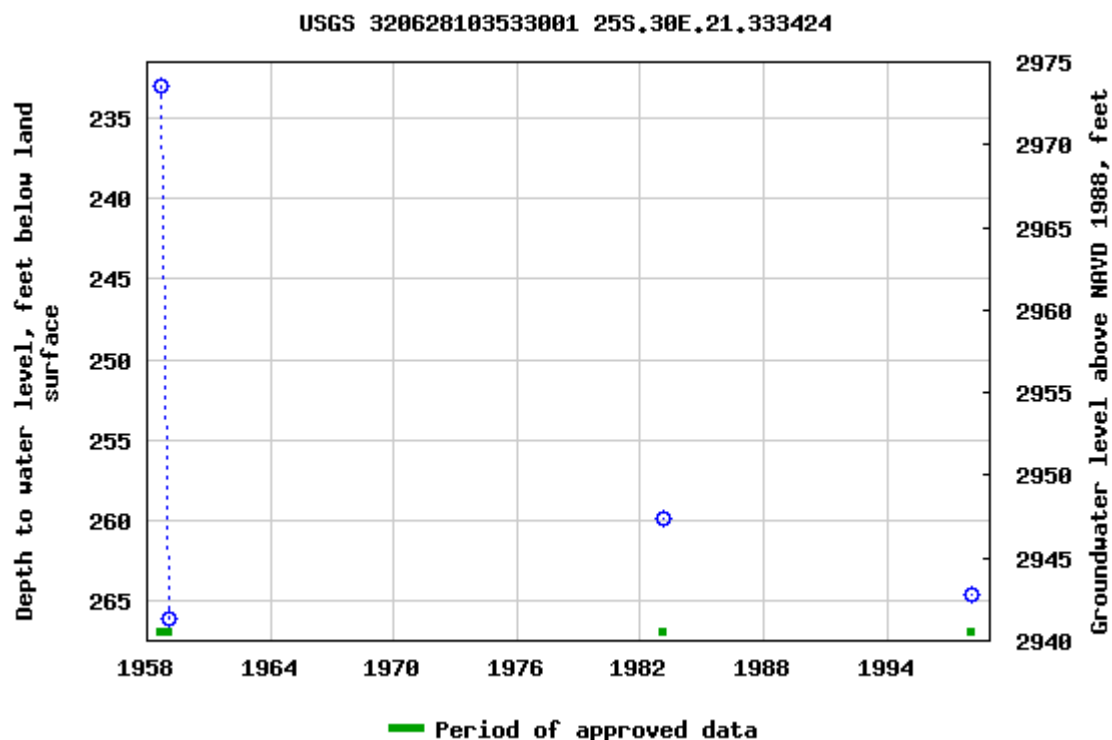
### Output formats

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Breaks in the plot represent a gap of at least one year between field measurements.

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**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**




Page Contact Information: [USGS Water Data Support Team](#)


Page Last Modified: 2022-02-03 13:07:48 EST

0.69 0.61 nadww02

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOGS



 <b>WSP USA</b> 508 West Stevens Street Carlsbad, New Mexico 88220								BH or PH Name:		Date:	
								PH01		1/18/2022	
								Site Name: PLU 423			
								RP or Incident Number: nAPP2132248577			
WSP Job Number: 31403236.029											
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>											
Lat/Long: 32.113025, -103.915401				Field Screening: TPH, Chlorides		Hole Diameter: N/A		Total Depth: 2 feet bgs			
Comments: All chloride field screenings include a 40% correction factor. M-moist; D-dry; Y-yes; N-no											
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, dry, tan, poorly consolidated, no stain, no odor, fill.			
D	274.4	0.1	N	PH01	1	1	SP	1'-2', SAND, dry, light brown-brown, poorly graded, fine-very fine grain, no stain, no odor.			
D	364.0	1.6	N	PH01A	2	2					
TD @ 2 feet bgs											

 <b>WSP USA</b> 508 West Stevens Street Carlsbad, New Mexico 88220								BH or PH Name:		Date:	
								PH02		1/18/2022	
								Site Name: PLU 423			
								RP or Incident Number: nAPP2132248577			
WSP Job Number: 31403236.029											
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>											
Lat/Long: 32.113006, -103.915440				Field Screening: TPH, Chlorides		Hole Diameter: N/A		Total Depth: 2 feet bgs			
Comments: All chloride field screenings include a 40% correction factor. M-moist; D-dry; Y-yes; N-no											
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, dry, tan, poorly consolidated, no stain, no odor, fill.			
D	2,951.2	0.0	N	PH02	1	1	SP	1'-2', SAND, dry, light brown-brown, poorly graded, fine-very fine grain, no stain, no odor.			
D	2,206.4	0.0	N	PH02A	2	2					
TD @ 2 feet bgs											

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG		
XTO Energy, Inc.	POKER LAKE UNIT 423 EDDY COUNTY, NEW MEXICO	NAPP2132248577



Photo No.	Date	
1	November 22, 2021	
View facing south of release extent during initial site assessment		 A photograph showing a view facing south of the release extent during an initial site assessment. The image depicts a dry, arid landscape with sparse vegetation. In the foreground, there are several large, dark, cylindrical pipes or tanks. In the background, a large satellite dish is visible on a structure, and a yellow fence runs across the middle ground. The sky is clear and blue.

Photo No.	Date	
2	November 22, 2021	
View facing north of release extent during initial site assessment		 A photograph showing a view facing north of the release extent during an initial site assessment. The image depicts a dry, arid landscape with sparse vegetation. In the foreground, there are several large, dark, cylindrical pipes or tanks. In the background, a large satellite dish is visible on a structure, and a yellow fence runs across the middle ground. The sky is clear and blue.





PHOTOGRAPHIC LOG		
XTO Energy, Inc.	POKER LAKE UNIT 423 EDDY COUNTY, NEW MEXICO	NAPP2132248577


Photo No.	Date	
3	January 18, 2022	
View facing south of excavation activities		

Photo No.	Date	
4	January 18, 2022	
View facing north of excavation activities		

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1752-1

Laboratory Sample Delivery Group: 31403236.029

Client Project/Site: PLU 423

For:

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

Attn: Benjamin Belill

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

Authorized for release by:  
1/4/2022 2:17:38 PM

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

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*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 423

Laboratory Job ID: 890-1752-1  
SDG: 31403236.029

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.
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.
α	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 423

Job ID: 890-1752-1  
SDG: 31403236.029

---

**Job ID: 890-1752-1**

---

**Laboratory: Eurofins Xenco, Carlsbad**

---

**Narrative**

---

**Job Narrative**  
**890-1752-1**

**Receipt**

The samples were received on 12/23/2021 9:57 AM. 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 2.2°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 laboratory control sample (LCS) associated with preparation batch 880-15659 and analytical batch 880-15677 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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 423

Job ID: 890-1752-1  
SDG: 31403236.029

Client Sample ID: SS01

Lab Sample ID: 890-1752-1

Date Collected: 12/22/21 13:33

Matrix: Solid

Date Received: 12/23/21 09:57

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		01/03/22 08:26	01/03/22 19:18	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/03/22 08:26	01/03/22 19:18	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/03/22 08:26	01/03/22 19:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/03/22 08:26	01/03/22 19:18	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/03/22 08:26	01/03/22 19:18	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/03/22 08:26	01/03/22 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	01/03/22 08:26	01/03/22 19:18	1
1,4-Difluorobenzene (Surr)	107		70 - 130	01/03/22 08:26	01/03/22 19:18	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			01/03/22 13:25	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			01/03/22 13:55	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		12/28/21 13:53	12/29/21 14:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U *	49.9	mg/Kg		12/28/21 13:53	12/29/21 14:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/28/21 13:53	12/29/21 14:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	12/28/21 13:53	12/29/21 14:42	1
o-Terphenyl	115		70 - 130	12/28/21 13:53	12/29/21 14:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9400		49.9	mg/Kg			12/31/21 01:04	10

Client Sample ID: SS02

Lab Sample ID: 890-1752-2

Date Collected: 12/22/21 13:37

Matrix: Solid

Date Received: 12/23/21 09:57

Sample Depth: 0.5

## 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 08:26	01/03/22 19:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/03/22 08:26	01/03/22 19:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/03/22 08:26	01/03/22 19:39	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/03/22 08:26	01/03/22 19:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/03/22 08:26	01/03/22 19:39	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/03/22 08:26	01/03/22 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	01/03/22 08:26	01/03/22 19:39	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

Client Sample ID: SS02

Lab Sample ID: 890-1752-2

Date Collected: 12/22/21 13:37

Matrix: Solid

Date Received: 12/23/21 09:57

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	89		70 - 130	01/03/22 08:26	01/03/22 19:39	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			01/03/22 13:25	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			01/03/22 13:55	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		12/28/21 13:53	12/29/21 15:03	1
Diesel Range Organics (Over C10-C28)	<49.9	U *+	49.9	mg/Kg		12/28/21 13:53	12/29/21 15:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/28/21 13:53	12/29/21 15:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130			12/28/21 13:53	12/29/21 15:03	1
o-Terphenyl	113		70 - 130			12/28/21 13:53	12/29/21 15:03	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31600		253	mg/Kg			12/31/21 01:15	50

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-9746-A-4-F MS	Matrix Spike	106	101
880-9746-A-4-G MSD	Matrix Spike Duplicate	101	95
890-1752-1	SS01	103	107
890-1752-2	SS02	114	89
LCS 880-15695/1-A	Lab Control Sample	121	105
LCSD 880-15695/2-A	Lab Control Sample Dup	123	113
MB 880-15695/5-A	Method Blank	112	102
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1751-A-1-B MS	Matrix Spike	110	93
890-1751-A-1-C MSD	Matrix Spike Duplicate	110	93
890-1752-1	SS01	114	115
890-1752-2	SS02	114	113
<b>Surrogate Legend</b>			
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)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-15659/2-A	Lab Control Sample	100	96
LCSD 880-15659/3-A	Lab Control Sample Dup	121	123
MB 880-15659/1-A	Method Blank	102	105
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

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

Lab Sample ID: MB 880-15695/5-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15695

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/03/22 08:26	01/03/22 12:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/03/22 08:26	01/03/22 12:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/03/22 08:26	01/03/22 12:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/03/22 08:26	01/03/22 12:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/03/22 08:26	01/03/22 12:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/03/22 08:26	01/03/22 12:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	01/03/22 08:26	01/03/22 12:28	1
1,4-Difluorobenzene (Surr)	102		70 - 130	01/03/22 08:26	01/03/22 12:28	1

Lab Sample ID: LCS 880-15695/1-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07196		mg/Kg		72	70 - 130
Toluene	0.100	0.07285		mg/Kg		73	70 - 130
Ethylbenzene	0.100	0.07540		mg/Kg		75	70 - 130
m-Xylene & p-Xylene	0.200	0.1547		mg/Kg		77	70 - 130
o-Xylene	0.100	0.08083		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-15695/2-A

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15695

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07588		mg/Kg		76	70 - 130	5	35
Toluene	0.100	0.07630		mg/Kg		76	70 - 130	5	35
Ethylbenzene	0.100	0.07958		mg/Kg		80	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1648		mg/Kg		82	70 - 130	6	35
o-Xylene	0.100	0.08517		mg/Kg		85	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 880-9746-A-4-F MS

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 15695

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F1	0.100	0.07063		mg/Kg		70	70 - 130
Toluene	<0.00200	U F1	0.100	0.06888	F1	mg/Kg		69	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

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

Lab Sample ID: 880-9746-A-4-F MS

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 15695

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.100	0.07657		mg/Kg		76	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.201	0.1580		mg/Kg		79	70 - 130
o-Xylene	<0.00200	U	0.100	0.08073		mg/Kg		80	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-9746-A-4-G MSD

Matrix: Solid

Analysis Batch: 15845

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 15695

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.0990	0.06583	F1	mg/Kg		66	70 - 130	7	35
Toluene	<0.00200	U F1	0.0990	0.06630	F1	mg/Kg		67	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.0990	0.06951		mg/Kg		70	70 - 130	10	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.1446		mg/Kg		73	70 - 130	9	35
o-Xylene	<0.00200	U	0.0990	0.07205		mg/Kg		73	70 - 130	11	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

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

Lab Sample ID: MB 880-15659/1-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15659

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		12/28/21 13:53	12/29/21 10:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/28/21 13:53	12/29/21 10:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/28/21 13:53	12/29/21 10:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	12/28/21 13:53	12/29/21 10:02	1
o-Terphenyl	105		70 - 130	12/28/21 13:53	12/29/21 10:02	1

Lab Sample ID: LCS 880-15659/2-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15659

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1088		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1110		mg/Kg		111	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

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

Lab Sample ID: LCS 880-15659/2-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15659

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-15659/3-A

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15659

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1188		mg/Kg		119	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1311	*+	mg/Kg		131	70 - 130	17	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 890-1751-A-1-B MS

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 15659

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	1990	2008		mg/Kg		101	70 - 130		
Diesel Range Organics (Over C10-C28)	64.4	F1 *+	1990	1989		mg/Kg		97	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-1751-A-1-C MSD

Matrix: Solid

Analysis Batch: 15677

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 15659

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	2000	2003		mg/Kg		100	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	64.4	F1 *+	2000	1983		mg/Kg		96	70 - 130	0	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	93		70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15694/1-A

Matrix: Solid

Analysis Batch: 15818

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			12/30/21 23:40	1

Lab Sample ID: LCS 880-15694/2-A

Matrix: Solid

Analysis Batch: 15818

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	259.4		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-15694/3-A

Matrix: Solid

Analysis Batch: 15818

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	260.1		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 890-1751-A-1-F MS

Matrix: Solid

Analysis Batch: 15818

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	33900	F1	12500	44650	F1	mg/Kg		86	90 - 110

Lab Sample ID: 890-1751-A-1-G MSD

Matrix: Solid

Analysis Batch: 15818

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	33900	F1	12500	45280		mg/Kg		91	90 - 110	1	20

Lab Sample ID: 890-1754-A-5-C MS

Matrix: Solid

Analysis Batch: 15818

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	1240		2480	3826		mg/Kg		105	90 - 110

Lab Sample ID: 890-1754-A-5-D MSD

Matrix: Solid

Analysis Batch: 15818

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	1240		2480	3895		mg/Kg		107	90 - 110	2	20

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

## GC VOA

## Prep Batch: 15695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Total/NA	Solid	5035	
890-1752-2	SS02	Total/NA	Solid	5035	
MB 880-15695/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15695/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15695/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9746-A-4-F MS	Matrix Spike	Total/NA	Solid	5035	
880-9746-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 15845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Total/NA	Solid	8021B	15695
890-1752-2	SS02	Total/NA	Solid	8021B	15695
MB 880-15695/5-A	Method Blank	Total/NA	Solid	8021B	15695
LCS 880-15695/1-A	Lab Control Sample	Total/NA	Solid	8021B	15695
LCSD 880-15695/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15695
880-9746-A-4-F MS	Matrix Spike	Total/NA	Solid	8021B	15695
880-9746-A-4-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15695

## Analysis Batch: 15908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Total/NA	Solid	Total BTEX	
890-1752-2	SS02	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 15659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Total/NA	Solid	8015NM Prep	
890-1752-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-15659/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15659/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1751-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1751-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 15677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Total/NA	Solid	8015B NM	15659
890-1752-2	SS02	Total/NA	Solid	8015B NM	15659
MB 880-15659/1-A	Method Blank	Total/NA	Solid	8015B NM	15659
LCS 880-15659/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15659
LCSD 880-15659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15659
890-1751-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	15659
890-1751-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15659

## Analysis Batch: 15912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Total/NA	Solid	8015 NM	
890-1752-2	SS02	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

## HPLC/IC

## Leach Batch: 15694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Soluble	Solid	DI Leach	
890-1752-2	SS02	Soluble	Solid	DI Leach	
MB 880-15694/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15694/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15694/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1751-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1751-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-1754-A-5-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1754-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 15818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1752-1	SS01	Soluble	Solid	300.0	15694
890-1752-2	SS02	Soluble	Solid	300.0	15694
MB 880-15694/1-A	Method Blank	Soluble	Solid	300.0	15694
LCS 880-15694/2-A	Lab Control Sample	Soluble	Solid	300.0	15694
LCSD 880-15694/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15694
890-1751-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	15694
890-1751-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15694
890-1754-A-5-C MS	Matrix Spike	Soluble	Solid	300.0	15694
890-1754-A-5-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15694

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

Client Sample ID: SS01

Lab Sample ID: 890-1752-1

Date Collected: 12/22/21 13:33

Matrix: Solid

Date Received: 12/23/21 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	15845	01/03/22 19:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15659	12/28/21 13:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15677	12/29/21 14:42	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		10	15818	12/31/21 01:04	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1752-2

Date Collected: 12/22/21 13:37

Matrix: Solid

Date Received: 12/23/21 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15695	01/03/22 08:26	MR	XEN MID
Total/NA	Analysis	8021B		1	15845	01/03/22 19:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15659	12/28/21 13:53	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15677	12/29/21 15:03	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		50	15818	12/31/21 01:15	CH	XEN MID

## Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: PLU 423

Job ID: 890-1752-1  
SDG: 31403236.029

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 423

Job ID: 890-1752-1  
SDG: 31403236.029

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 423

Job ID: 890-1752-1  
SDG: 31403236.029

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1752-1	SS01	Solid	12/22/21 13:33	12/23/21 09:57	0.5
890-1752-2	SS02	Solid	12/22/21 13:37	12/23/21 09:57	0.5

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## Chain of Custody

Work Order No: \_\_\_\_\_

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

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Project Manager:	Ben Beilli	Bill No: (if different)	Adrian Baker
Company Name:	WSP	Company Name	XTO Energy
Address:	3300 North A Street	Address	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City State ZIP	Carlsbad, NM 88220
Phone	989-854-0852	Email	Gilbert.Moreno@wsp.com, Adrian.Baker@exxonmobil.com

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> NRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	PLU 423	Turn Around	<input checked="" type="checkbox"/>
Project Number:	31403336-03 31403236.029	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Gilbert Moreno	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	24.2			Thermometer ID	1010051	
Received Intact:	Yes	No		Correction Factor:	-0.2	
Cooler Custody Seals:	Yes	No		Total Containers:		
Sample Custody Seals:	Yes	No				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth
SS01	S	12.22.21	13:33	0.5
SS02	S	12.22.22	13:37	0.5

ANALYSIS REQUEST		Work Order Notes
Number of Containers		
TPH (EPA 8015)		
BTEX (EPA 0=8021)		
Chloride (EPA 300.0)		
890-1752 Chain of Custody		
CC 1061221001 APE API		
TAT starts the day received by the lab, if received by 4:30pm		
Sample Comments		

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>Gilbert Moreno</i>	<i>Adrian Baker</i>	12.23.21 09:57			

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1752-1

SDG Number: 31403236.029

Login Number: 1752

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: 890-1752-1

SDG Number: 31403236.029

Login Number: 1752

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland

List Creation: 12/28/21 10:39 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	



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1857-1

Laboratory Sample Delivery Group: 31403236.029 TASK06.02

Client Project/Site: PLU #423

**For:**

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

Attn: Benjamin Belill

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

Authorized for release by:  
1/28/2022 1:27:54 PM

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

#### LINKS

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*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 #423

Laboratory Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

## 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
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
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.
α	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 #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

**Job ID: 890-1857-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-1857-1****Receipt**

The samples were received on 1/21/2022 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 1.4°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 880-17733 and analytical batch 880-17662 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 #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

Client Sample ID: SS03

Lab Sample ID: 890-1857-1

Date Collected: 01/18/22 14:05

Matrix: Solid

Date Received: 01/21/22 15:25

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		01/25/22 07:21	01/25/22 17:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/22 07:21	01/25/22 17:49	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/22 07:21	01/25/22 17:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/22 07:21	01/25/22 17:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/22 07:21	01/25/22 17:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/22 07:21	01/25/22 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	01/25/22 07:21	01/25/22 17:49	1
1,4-Difluorobenzene (Surr)	109		70 - 130	01/25/22 07:21	01/25/22 17:49	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			01/28/22 14:15	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			01/27/22 16:10	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	49.9	mg/Kg		01/25/22 15:06	01/25/22 22:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9	mg/Kg		01/25/22 15:06	01/25/22 22:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/25/22 15:06	01/25/22 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	01/25/22 15:06	01/25/22 22:32	1
o-Terphenyl	114		70 - 130	01/25/22 15:06	01/25/22 22:32	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		4.98	mg/Kg			01/27/22 19:52	1

Client Sample ID: SS04

Lab Sample ID: 890-1857-2

Date Collected: 01/18/22 14:10

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 18:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 18:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 18:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/25/22 07:21	01/25/22 18:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 18:09	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/25/22 07:21	01/25/22 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	01/25/22 07:21	01/25/22 18:09	1

Eurofins Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

Client Sample ID: SS04

Lab Sample ID: 890-1857-2

Date Collected: 01/18/22 14:10

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	115		70 - 130	01/25/22 07:21	01/25/22 18:09	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			01/28/22 14:15	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			01/27/22 16:10	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		01/25/22 15:06	01/25/22 23:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/25/22 15:06	01/25/22 23:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/25/22 15:06	01/25/22 23:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			01/25/22 15:06	01/25/22 23:38	1
o-Terphenyl	93		70 - 130			01/25/22 15:06	01/25/22 23:38	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.4		4.99	mg/Kg			01/27/22 19:59	1

Client Sample ID: SS05

Lab Sample ID: 890-1857-3

Date Collected: 01/18/22 14:15

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/25/22 07:21	01/25/22 18:29	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/25/22 07:21	01/25/22 18:29	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/25/22 07:21	01/25/22 18:29	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/25/22 07:21	01/25/22 18:29	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/25/22 07:21	01/25/22 18:29	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/25/22 07:21	01/25/22 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	01/25/22 07:21	01/25/22 18:29	1
1,4-Difluorobenzene (Surr)	109		70 - 130	01/25/22 07:21	01/25/22 18:29	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/28/22 14:15	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			01/27/22 16:10	1

Eurofins Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

Client Sample ID: SS05

Lab Sample ID: 890-1857-3

Date Collected: 01/18/22 14:15

Matrix: Solid

Date Received: 01/21/22 15:25

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	<50.0	U	50.0	mg/Kg		01/25/22 15:06	01/26/22 00:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/25/22 15:06	01/26/22 00:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/25/22 15:06	01/26/22 00:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130			01/25/22 15:06	01/26/22 00:00	1
o-Terphenyl	131	S1+	70 - 130			01/25/22 15:06	01/26/22 00:00	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18.2		4.95	mg/Kg			01/27/22 20:22	1

Client Sample ID: SS06

Lab Sample ID: 890-1857-4

Date Collected: 01/18/22 14:20

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/25/22 07:21	01/25/22 18:50	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/25/22 07:21	01/25/22 18:50	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/25/22 07:21	01/25/22 18:50	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		01/25/22 07:21	01/25/22 18:50	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/25/22 07:21	01/25/22 18:50	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		01/25/22 07:21	01/25/22 18:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	165	S1+	70 - 130			01/25/22 07:21	01/25/22 18:50	1
1,4-Difluorobenzene (Surr)	84		70 - 130			01/25/22 07:21	01/25/22 18:50	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			01/28/22 14:15	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			01/27/22 16:10	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		01/25/22 15:06	01/26/22 00:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/25/22 15:06	01/26/22 00:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/25/22 15:06	01/26/22 00:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			01/25/22 15:06	01/26/22 00:23	1
o-Terphenyl	93		70 - 130			01/25/22 15:06	01/26/22 00:23	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

## Client Sample ID: SS06

## Lab Sample ID: 890-1857-4

Date Collected: 01/18/22 14:20

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 0.5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.7		5.02	mg/Kg			01/27/22 20:29	1

## Client Sample ID: SS07

## Lab Sample ID: 890-1857-5

Date Collected: 01/18/22 14:30

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 19:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 19:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 19:10	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/25/22 07:21	01/25/22 19:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 19:10	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/25/22 07:21	01/25/22 19:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	78		70 - 130			01/25/22 07:21	01/25/22 19:10	1
1,4-Difluorobenzene (Surr)	108		70 - 130			01/25/22 07:21	01/25/22 19:10	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			01/28/22 14:15	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			01/27/22 16:10	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		01/25/22 15:06	01/26/22 00:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/25/22 15:06	01/26/22 00:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/25/22 15:06	01/26/22 00:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130			01/25/22 15:06	01/26/22 00:46	1
o-Terphenyl	87		70 - 130			01/25/22 15:06	01/26/22 00:46	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.2		4.98	mg/Kg			01/27/22 20:52	1

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## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-10483-A-21-H MS	Matrix Spike	124	97
880-10483-A-21-I MSD	Matrix Spike Duplicate	120	99
890-1857-1	SS03	133 S1+	109
890-1857-2	SS04	123	115
890-1857-3	SS05	130	109
890-1857-4	SS06	165 S1+	84
890-1857-5	SS07	78	108
LCS 880-17653/1-A	Lab Control Sample	121	105
LCSD 880-17653/2-A	Lab Control Sample Dup	128	107
MB 880-17653/5-A	Method Blank	117	95
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1857-1	SS03	101	114
890-1857-1 MS	SS03	90	86
890-1857-1 MSD	SS03	91	87
890-1857-2	SS04	82	93
890-1857-3	SS05	115	131 S1+
890-1857-4	SS06	84	93
890-1857-5	SS07	77	87
LCS 880-17733/2-A	Lab Control Sample	106	114
LCSD 880-17733/3-A	Lab Control Sample Dup	121	127
MB 880-17733/1-A	Method Blank	90	101
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

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

Lab Sample ID: MB 880-17653/5-A

Matrix: Solid

Analysis Batch: 17654

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17653

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 10:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 10:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 10:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/22 07:21	01/25/22 10:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:21	01/25/22 10:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/25/22 07:21	01/25/22 10:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	01/25/22 07:21	01/25/22 10:44	1
1,4-Difluorobenzene (Surr)	95		70 - 130	01/25/22 07:21	01/25/22 10:44	1

Lab Sample ID: LCS 880-17653/1-A

Matrix: Solid

Analysis Batch: 17654

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17653

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09202		mg/Kg		92	70 - 130
Toluene	0.100	0.09924		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09918		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.1975		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09716		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-17653/2-A

Matrix: Solid

Analysis Batch: 17654

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17653

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09636		mg/Kg		96	70 - 130	5	35
Toluene	0.100	0.1042		mg/Kg		104	70 - 130	5	35
Ethylbenzene	0.100	0.1036		mg/Kg		104	70 - 130	4	35
m-Xylene & p-Xylene	0.200	0.2050		mg/Kg		103	70 - 130	4	35
o-Xylene	0.100	0.1040		mg/Kg		104	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	128		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 880-10483-A-21-H MS

Matrix: Solid

Analysis Batch: 17654

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 17653

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.100	0.08943		mg/Kg		89	70 - 130
Toluene	<0.00199	U	0.100	0.09753		mg/Kg		96	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

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

Lab Sample ID: 880-10483-A-21-H MS

Matrix: Solid

Analysis Batch: 17654

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 17653

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.100	0.09903		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.2022		mg/Kg		101	70 - 130
o-Xylene	<0.00199	U	0.100	0.09981		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	124		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-10483-A-21-I MSD

Matrix: Solid

Analysis Batch: 17654

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17653

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	0.09000		mg/Kg		90	70 - 130	1	35
Toluene	<0.00199	U	0.100	0.09198		mg/Kg		91	70 - 130	6	35
Ethylbenzene	<0.00199	U	0.100	0.09451		mg/Kg		94	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1866		mg/Kg		93	70 - 130	8	35
o-Xylene	<0.00199	U	0.100	0.09185		mg/Kg		91	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-17733/1-A

Matrix: Solid

Analysis Batch: 17662

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17733

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		01/25/22 15:06	01/25/22 21:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/25/22 15:06	01/25/22 21:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/25/22 15:06	01/25/22 21:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	01/25/22 15:06	01/25/22 21:23	1
o-Terphenyl	101		70 - 130	01/25/22 15:06	01/25/22 21:23	1

Lab Sample ID: LCS 880-17733/2-A

Matrix: Solid

Analysis Batch: 17662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17733

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	948.6		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1021		mg/Kg		102	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

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

Lab Sample ID: LCS 880-17733/2-A

Matrix: Solid

Analysis Batch: 17662

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17733

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: LCSD 880-17733/3-A

Matrix: Solid

Analysis Batch: 17662

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17733

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	996.4		mg/Kg		100	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1102		mg/Kg		110	70 - 130	8	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	121		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: 890-1857-1 MS

Matrix: Solid

Analysis Batch: 17662

Client Sample ID: SS03

Prep Type: Total/NA

Prep Batch: 17733

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	997	1370	F1	mg/Kg		137	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	1360	F1	mg/Kg		134	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 890-1857-1 MSD

Matrix: Solid

Analysis Batch: 17662

Client Sample ID: SS03

Prep Type: Total/NA

Prep Batch: 17733

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	996	1375	F1	mg/Kg		138	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	1357	F1	mg/Kg		134	70 - 130	0	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	87		70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-17707/1-A

Matrix: Solid

Analysis Batch: 17737

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			01/27/22 17:51	1

Lab Sample ID: LCS 880-17707/2-A

Matrix: Solid

Analysis Batch: 17737

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	274.3		mg/Kg		110	90 - 110

Lab Sample ID: LCSD 880-17707/3-A

Matrix: Solid

Analysis Batch: 17737

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	273.1		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 890-1857-2 MS

Matrix: Solid

Analysis Batch: 17737

Client Sample ID: SS04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	17.4		250	284.4		mg/Kg		107	90 - 110

Lab Sample ID: 890-1857-2 MSD

Matrix: Solid

Analysis Batch: 17737

Client Sample ID: SS04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	17.4		250	285.1		mg/Kg		107	90 - 110	0	20

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

## GC VOA

## Prep Batch: 17653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Total/NA	Solid	5035	
890-1857-2	SS04	Total/NA	Solid	5035	
890-1857-3	SS05	Total/NA	Solid	5035	
890-1857-4	SS06	Total/NA	Solid	5035	
890-1857-5	SS07	Total/NA	Solid	5035	
MB 880-17653/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17653/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17653/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-10483-A-21-H MS	Matrix Spike	Total/NA	Solid	5035	
880-10483-A-21-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 17654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Total/NA	Solid	8021B	17653
890-1857-2	SS04	Total/NA	Solid	8021B	17653
890-1857-3	SS05	Total/NA	Solid	8021B	17653
890-1857-4	SS06	Total/NA	Solid	8021B	17653
890-1857-5	SS07	Total/NA	Solid	8021B	17653
MB 880-17653/5-A	Method Blank	Total/NA	Solid	8021B	17653
LCS 880-17653/1-A	Lab Control Sample	Total/NA	Solid	8021B	17653
LCSD 880-17653/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17653
880-10483-A-21-H MS	Matrix Spike	Total/NA	Solid	8021B	17653
880-10483-A-21-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17653

## Analysis Batch: 18058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Total/NA	Solid	Total BTEX	
890-1857-2	SS04	Total/NA	Solid	Total BTEX	
890-1857-3	SS05	Total/NA	Solid	Total BTEX	
890-1857-4	SS06	Total/NA	Solid	Total BTEX	
890-1857-5	SS07	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 17662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Total/NA	Solid	8015B NM	17733
890-1857-2	SS04	Total/NA	Solid	8015B NM	17733
890-1857-3	SS05	Total/NA	Solid	8015B NM	17733
890-1857-4	SS06	Total/NA	Solid	8015B NM	17733
890-1857-5	SS07	Total/NA	Solid	8015B NM	17733
MB 880-17733/1-A	Method Blank	Total/NA	Solid	8015B NM	17733
LCS 880-17733/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	17733
LCSD 880-17733/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17733
890-1857-1 MS	SS03	Total/NA	Solid	8015B NM	17733
890-1857-1 MSD	SS03	Total/NA	Solid	8015B NM	17733

## Prep Batch: 17733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Total/NA	Solid	8015NM Prep	
890-1857-2	SS04	Total/NA	Solid	8015NM Prep	

Eurofins Carlsbad



## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

## GC Semi VOA (Continued)

## Prep Batch: 17733 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-3	SS05	Total/NA	Solid	8015NM Prep	
890-1857-4	SS06	Total/NA	Solid	8015NM Prep	
890-1857-5	SS07	Total/NA	Solid	8015NM Prep	
MB 880-17733/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-17733/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-17733/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1857-1 MS	SS03	Total/NA	Solid	8015NM Prep	
890-1857-1 MSD	SS03	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 17951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Total/NA	Solid	8015 NM	
890-1857-2	SS04	Total/NA	Solid	8015 NM	
890-1857-3	SS05	Total/NA	Solid	8015 NM	
890-1857-4	SS06	Total/NA	Solid	8015 NM	
890-1857-5	SS07	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 17707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Soluble	Solid	DI Leach	
890-1857-2	SS04	Soluble	Solid	DI Leach	
890-1857-3	SS05	Soluble	Solid	DI Leach	
890-1857-4	SS06	Soluble	Solid	DI Leach	
890-1857-5	SS07	Soluble	Solid	DI Leach	
MB 880-17707/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17707/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17707/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1857-2 MS	SS04	Soluble	Solid	DI Leach	
890-1857-2 MSD	SS04	Soluble	Solid	DI Leach	

## Analysis Batch: 17737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1857-1	SS03	Soluble	Solid	300.0	17707
890-1857-2	SS04	Soluble	Solid	300.0	17707
890-1857-3	SS05	Soluble	Solid	300.0	17707
890-1857-4	SS06	Soluble	Solid	300.0	17707
890-1857-5	SS07	Soluble	Solid	300.0	17707
MB 880-17707/1-A	Method Blank	Soluble	Solid	300.0	17707
LCS 880-17707/2-A	Lab Control Sample	Soluble	Solid	300.0	17707
LCSD 880-17707/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17707
890-1857-2 MS	SS04	Soluble	Solid	300.0	17707
890-1857-2 MSD	SS04	Soluble	Solid	300.0	17707

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

Client Sample ID: SS03

Lab Sample ID: 890-1857-1

Date Collected: 01/18/22 14:05

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17653	01/25/22 07:21	KL	XEN MID
Total/NA	Analysis	8021B		1	17654	01/25/22 17:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17733	01/25/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17662	01/25/22 22:32	AJ	XEN MID
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		1	17737	01/27/22 19:52	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-1857-2

Date Collected: 01/18/22 14:10

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17653	01/25/22 07:21	KL	XEN MID
Total/NA	Analysis	8021B		1	17654	01/25/22 18:09	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17733	01/25/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17662	01/25/22 23:38	AJ	XEN MID
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		1	17737	01/27/22 19:59	CH	XEN MID

Client Sample ID: SS05

Lab Sample ID: 890-1857-3

Date Collected: 01/18/22 14:15

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17653	01/25/22 07:21	KL	XEN MID
Total/NA	Analysis	8021B		1	17654	01/25/22 18:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17733	01/25/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17662	01/26/22 00:00	AJ	XEN MID
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		1	17737	01/27/22 20:22	CH	XEN MID

Client Sample ID: SS06

Lab Sample ID: 890-1857-4

Date Collected: 01/18/22 14:20

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17653	01/25/22 07:21	KL	XEN MID
Total/NA	Analysis	8021B		1	17654	01/25/22 18:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

## Client Sample ID: SS06

## Lab Sample ID: 890-1857-4

Date Collected: 01/18/22 14:20

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17733	01/25/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17662	01/26/22 00:23	AJ	XEN MID
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		1	17737	01/27/22 20:29	CH	XEN MID

## Client Sample ID: SS07

## Lab Sample ID: 890-1857-5

Date Collected: 01/18/22 14:30

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17653	01/25/22 07:21	KL	XEN MID
Total/NA	Analysis	8021B		1	17654	01/25/22 19:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17733	01/25/22 15:06	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17662	01/26/22 00:46	AJ	XEN MID
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		1	17737	01/27/22 20:52	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.  
Project/Site: PLU #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

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 #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

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 #423

Job ID: 890-1857-1  
SDG: 31403236.029 TASK06.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1857-1	SS03	Solid	01/18/22 14:05	01/21/22 15:25	0.5
890-1857-2	SS04	Solid	01/18/22 14:10	01/21/22 15:25	0.5
890-1857-3	SS05	Solid	01/18/22 14:15	01/21/22 15:25	0.5
890-1857-4	SS06	Solid	01/18/22 14:20	01/21/22 15:25	0.5
890-1857-5	SS07	Solid	01/18/22 14:30	01/21/22 15:25	0.5





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

## Chain of Custody

**Work Order No**

[www.xenco.com](http://www.xenco.com)


Page 1 of 1

Project Manager:	Benjamin Bellil	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc.	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	Alexis.Castro@wsp.com, Benjamin.Bellil@wsp.com

Work Order Comments			
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>		
State of Project:			
Reporting Level II	<input type="checkbox"/> Level III	<input type="checkbox"/> PST/UST	<input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/>	ADAPT <input type="checkbox"/>	Other: <input type="text"/>

<b>Project Name:</b>	PLU #423	<b>Turn Around</b>	<b>ANALYSIS REQUEST</b>						<b>Work Order Notes</b>

Project Number:	31403236.029	Task #:	06.02	Routine	<input checked="" type="checkbox"/>
P.O. Number:				Rush:	
Sampler's Name:	Alexis Castro			Due Date:	



INC: nAPp2132248577

CC: 1081221001

API: 30-015-40710

SAMPLE RECEIPT		Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	1.6/1.4	Thermometer ID			
Received intact:	Yes No	10 W-007			
Cooler Custody Seals:	Yes No	-0.2			
Sample Custody Seals:	Yes No	N/A			
Total Containers:					

Number of Containers

(EPA 8015)

(EPA 0=8021)

(EPA 300.0)

890-1857 Chain of Custody

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

[illegible]

Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010	200.8 / 6020:
8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr II Sn U V Zn	
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg

**Notice:** Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

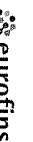
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>W. W. W.</i>	<i>W. W. W.</i>	1.07.22 15:25			
3		4			
5		6			

Revised Date: 05/11/18 Rev: 201

## Eurofine Carlehad

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

## Chain of Custody Record



## Environment Testing

[illegible]

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1857-1

SDG Number: 31403236.029 TASK06.02

Login Number: 1857

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: 890-1857-1

SDG Number: 31403236.029 TASK06.02

Login Number: 1857

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/25/22 11:57 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	



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1856-1  
Laboratory SDG: 31403236.029 TASK #06.02  
Client Project/Site: PLU #423

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

Attn: Benjamin Belill

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

Authorized for release by:  
1/28/2022 1:27:27 PM

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

#### LINKS

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*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 #423

Laboratory Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## 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
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.
α	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 #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

**Job ID: 890-1856-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-1856-1****Receipt**

The samples were received on 1/21/2022 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 1.4°C

**GC VOA**

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS02 (890-1856-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**GC Semi VOA**

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-17707 and analytical batch 880-17737 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 #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Client Sample ID: PH01

Lab Sample ID: 890-1856-1

Date Collected: 01/18/22 10:00

Matrix: Solid

Date Received: 01/21/22 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		01/25/22 16:00	01/25/22 19:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/22 16:00	01/25/22 19:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/22 16:00	01/25/22 19:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/22 16:00	01/25/22 19:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/22 16:00	01/25/22 19:48	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/25/22 16:00	01/25/22 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	163	S1+	70 - 130	01/25/22 16:00	01/25/22 19:48	1
1,4-Difluorobenzene (Surr)	95		70 - 130	01/25/22 16:00	01/25/22 19:48	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			01/28/22 14:15	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			01/27/22 16:10	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		01/26/22 08:15	01/26/22 12:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 12:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 12:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130	01/26/22 08:15	01/26/22 12:17	1
o-Terphenyl	82		70 - 130	01/26/22 08:15	01/26/22 12:17	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	154		5.01	mg/Kg			01/28/22 04:39	1

Client Sample ID: PH01A

Lab Sample ID: 890-1856-2

Date Collected: 01/18/22 10:15

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:16	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:16	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/22 16:00	01/25/22 20:16	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:16	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/22 16:00	01/25/22 20:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	01/25/22 16:00	01/25/22 20:16	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Client Sample ID: PH01A

Lab Sample ID: 890-1856-2

Date Collected: 01/18/22 10:15

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	103		70 - 130	01/25/22 16:00	01/25/22 20:16	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			01/28/22 14:15	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			01/27/22 16:10	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		01/26/22 08:15	01/26/22 13:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 13:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 13:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130			01/26/22 08:15	01/26/22 13:24	1
o-Terphenyl	81		70 - 130			01/26/22 08:15	01/26/22 13:24	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	221		4.96	mg/Kg			01/28/22 04:51	1

Client Sample ID: PH02

Lab Sample ID: 890-1856-3

Date Collected: 01/18/22 10:30

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:44	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:44	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/22 16:00	01/25/22 20:44	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 20:44	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/22 16:00	01/25/22 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	01/25/22 16:00	01/25/22 20:44	1
1,4-Difluorobenzene (Surr)	105		70 - 130	01/25/22 16:00	01/25/22 20:44	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			01/28/22 14:15	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			01/27/22 16:10	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## Client Sample ID: PH02

## Lab Sample ID: 890-1856-3

Date Collected: 01/18/22 10:30

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 13:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 13:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 13:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130			01/26/22 08:15	01/26/22 13:46	1
o-Terphenyl	92		70 - 130			01/26/22 08:15	01/26/22 13:46	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2720		25.0	mg/Kg			01/28/22 05:03	5

## Client Sample ID: PH02A

## Lab Sample ID: 890-1856-4

Date Collected: 01/18/22 10:45

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 21:12	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 21:12	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 21:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/25/22 16:00	01/25/22 21:12	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 21:12	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/25/22 16:00	01/25/22 21:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			01/25/22 16:00	01/25/22 21:12	1
1,4-Difluorobenzene (Surr)	89		70 - 130			01/25/22 16:00	01/25/22 21:12	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/28/22 14:15	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			01/27/22 16:10	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		01/26/22 08:15	01/26/22 14:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 14:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 14:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			01/26/22 08:15	01/26/22 14:08	1
o-Terphenyl	102		70 - 130			01/26/22 08:15	01/26/22 14:08	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## Client Sample ID: PH02A

## Lab Sample ID: 890-1856-4

Date Collected: 01/18/22 10:45

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 2

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	690		24.9	mg/Kg			01/28/22 05:15	5

## Client Sample ID: FS03

## Lab Sample ID: 890-1856-5

Date Collected: 01/18/22 14:40

Matrix: Solid

Date Received: 01/21/22 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		01/25/22 16:00	01/25/22 21:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/22 16:00	01/25/22 21:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/22 16:00	01/25/22 21:40	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/25/22 16:00	01/25/22 21:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/22 16:00	01/25/22 21:40	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/25/22 16:00	01/25/22 21:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130			01/25/22 16:00	01/25/22 21:40	1
1,4-Difluorobenzene (Surr)	93		70 - 130			01/25/22 16:00	01/25/22 21:40	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			01/28/22 14:15	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			01/27/22 16:10	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		01/26/22 08:15	01/26/22 14:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 14:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 14:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			01/26/22 08:15	01/26/22 14:52	1
o-Terphenyl	85		70 - 130			01/26/22 08:15	01/26/22 14:52	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	160		5.00	mg/Kg			01/28/22 05:26	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Client Sample ID: FS02

Lab Sample ID: 890-1856-6

Date Collected: 01/18/22 14:45

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		01/25/22 16:00	01/25/22 22:08	1
Toluene	<0.00202	U	0.00202	mg/Kg		01/25/22 16:00	01/25/22 22:08	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		01/25/22 16:00	01/25/22 22:08	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		01/25/22 16:00	01/25/22 22:08	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		01/25/22 16:00	01/25/22 22:08	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		01/25/22 16:00	01/25/22 22:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	178	S1+	70 - 130	01/25/22 16:00	01/25/22 22:08	1
1,4-Difluorobenzene (Surr)	79		70 - 130	01/25/22 16:00	01/25/22 22:08	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			01/28/22 14:15	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			01/27/22 16:10	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		01/26/22 08:15	01/26/22 15:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	01/26/22 08:15	01/26/22 15:13	1
o-Terphenyl	98		70 - 130	01/26/22 08:15	01/26/22 15:13	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6170		50.0	mg/Kg			01/27/22 19:29	10

Client Sample ID: FS01

Lab Sample ID: 890-1856-7

Date Collected: 01/18/22 14:50

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 22:37	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 22:37	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 22:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/25/22 16:00	01/25/22 22:37	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/25/22 16:00	01/25/22 22:37	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/25/22 16:00	01/25/22 22:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	01/25/22 16:00	01/25/22 22:37	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Client Sample ID: FS01

Lab Sample ID: 890-1856-7

Date Collected: 01/18/22 14:50

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	01/25/22 16:00	01/25/22 22:37	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			01/28/22 14:15	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			01/27/22 16:10	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		01/26/22 08:15	01/26/22 15:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 15:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 15:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			01/26/22 08:15	01/26/22 15:36	1
o-Terphenyl	91		70 - 130			01/26/22 08:15	01/26/22 15:36	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	726		5.00	mg/Kg			01/27/22 19:36	1

Client Sample ID: FS04

Lab Sample ID: 890-1856-8

Date Collected: 01/18/22 15:00

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 23:05	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 23:05	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 23:05	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/25/22 16:00	01/25/22 23:05	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/25/22 16:00	01/25/22 23:05	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/25/22 16:00	01/25/22 23:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	01/25/22 16:00	01/25/22 23:05	1
1,4-Difluorobenzene (Surr)	99		70 - 130	01/25/22 16:00	01/25/22 23:05	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/28/22 14:15	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			01/27/22 16:10	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Client Sample ID: FS04

Lab Sample ID: 890-1856-8

Date Collected: 01/18/22 15:00

Matrix: Solid

Date Received: 01/21/22 15:25

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 15:57	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 15:57	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/26/22 08:15	01/26/22 15:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	01/26/22 08:15	01/26/22 15:57	1
o-Terphenyl	98		70 - 130	01/26/22 08:15	01/26/22 15:57	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	613		5.01	mg/Kg			01/27/22 19:44	1

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1855-A-1-D MS	Matrix Spike	115	113
890-1855-A-1-E MSD	Matrix Spike Duplicate	110	109
890-1856-1	PH01	163 S1+	95
890-1856-2	PH01A	119	103
890-1856-3	PH02	119	105
890-1856-4	PH02A	93	89
890-1856-5	FS03	97	93
890-1856-6	FS02	178 S1+	79
890-1856-7	FS01	120	104
890-1856-8	FS04	112	99
LCS 880-17655/1-A	Lab Control Sample	103	106
LCSD 880-17655/2-A	Lab Control Sample Dup	106	110
MB 880-17655/5-A	Method Blank	75	91
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1856-1	PH01	72	82
890-1856-1 MS	PH01	75	75
890-1856-1 MSD	PH01	68 S1-	69 S1-
890-1856-2	PH01A	72	81
890-1856-3	PH02	79	92
890-1856-4	PH02A	86	102
890-1856-5	FS03	78	85
890-1856-6	FS02	86	98
890-1856-7	FS01	82	91
890-1856-8	FS04	86	98
LCS 880-17748/2-A	Lab Control Sample	103	110
LCSD 880-17748/3-A	Lab Control Sample Dup	102	108
MB 880-17748/1-A	Method Blank	93	110
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

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

Lab Sample ID: MB 880-17655/5-A

Matrix: Solid

Analysis Batch: 17656

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17655

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:25	01/25/22 11:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:25	01/25/22 11:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:25	01/25/22 11:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/25/22 07:25	01/25/22 11:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/25/22 07:25	01/25/22 11:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/25/22 07:25	01/25/22 11:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	75		70 - 130	01/25/22 07:25	01/25/22 11:16	1
1,4-Difluorobenzene (Surr)	91		70 - 130	01/25/22 07:25	01/25/22 11:16	1

Lab Sample ID: LCS 880-17655/1-A

Matrix: Solid

Analysis Batch: 17656

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1138		mg/Kg		114	70 - 130
Toluene	0.100	0.09497		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.09457		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.2089		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1104		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-17655/2-A

Matrix: Solid

Analysis Batch: 17656

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17655

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1103		mg/Kg		110	70 - 130	3	35
Toluene	0.100	0.09292		mg/Kg		93	70 - 130	2	35
Ethylbenzene	0.100	0.09271		mg/Kg		93	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2046		mg/Kg		102	70 - 130	2	35
o-Xylene	0.100	0.1082		mg/Kg		108	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 890-1855-A-1-E MSD

Matrix: Solid

Analysis Batch: 17656

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.0994	0.1108		mg/Kg					
Toluene	<0.00198	U	0.0994	0.09407		mg/Kg					

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

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

Lab Sample ID: 890-1855-A-1-E MSD

Matrix: Solid

Analysis Batch: 17656

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 17655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00198	U	0.0994	0.09294		mg/Kg					
m-Xylene & p-Xylene	<0.00396	U	0.199	0.2040		mg/Kg					
o-Xylene	<0.00198	U	0.0994	0.1082		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 890-1855-A-1-D MS

Matrix: Solid

Analysis Batch: 17656

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

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

Lab Sample ID: MB 880-17748/1-A

Matrix: Solid

Analysis Batch: 17750

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 17748

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		01/26/22 08:15	01/26/22 11:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 11:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/26/22 08:15	01/26/22 11:10	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	01/26/22 08:15	01/26/22 11:10	1
o-Terphenyl	110		70 - 130	01/26/22 08:15	01/26/22 11:10	1

Lab Sample ID: LCS 880-17748/2-A

Matrix: Solid

Analysis Batch: 17750

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 17748

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	704.4		mg/Kg		70	70 - 130
Diesel Range Organics (Over C10-C28)	1000	956.5		mg/Kg		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	110		70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

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

Lab Sample ID: LCSD 880-17748/3-A

Matrix: Solid

Analysis Batch: 17750

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 17748

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	698.5		mg/Kg		70	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	957.2		mg/Kg		96	70 - 130	0	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	102		70 - 130						
o-Terphenyl	108		70 - 130						

Lab Sample ID: 890-1856-1 MS

Matrix: Solid

Analysis Batch: 17750

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 17748

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	971.2		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1089		mg/Kg		109	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	75		70 - 130								
o-Terphenyl	75		70 - 130								

Lab Sample ID: 890-1856-1 MSD

Matrix: Solid

Analysis Batch: 17750

Client Sample ID: PH01

Prep Type: Total/NA

Prep Batch: 17748

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	914.4		mg/Kg		92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	979.4		mg/Kg		98	70 - 130	11	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	68	S1-	70 - 130								
o-Terphenyl	69	S1-	70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-17706/1-A

Matrix: Solid

Analysis Batch: 17736

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			01/27/22 23:31	1

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-17706/2-A

Matrix: Solid

Analysis Batch: 17736

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-17706/3-A

Matrix: Solid

Analysis Batch: 17736

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	249.2		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-1855-A-8-D MS

Matrix: Solid

Analysis Batch: 17736

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	<5.00	U	250	255.9		mg/Kg		102	90 - 110

Lab Sample ID: 890-1855-A-8-E MSD

Matrix: Solid

Analysis Batch: 17736

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	<5.00	U	250	254.1		mg/Kg		102	90 - 110	1	20

Lab Sample ID: MB 880-17707/1-A

Matrix: Solid

Analysis Batch: 17737

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			01/27/22 17:51	1

Lab Sample ID: LCS 880-17707/2-A

Matrix: Solid

Analysis Batch: 17737

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	274.3		mg/Kg		110	90 - 110

Lab Sample ID: LCSD 880-17707/3-A

Matrix: Solid

Analysis Batch: 17737

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	273.1		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 880-10478-A-1-E MS

Matrix: Solid

Analysis Batch: 17737

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	624	F1	250	1002	F1	mg/Kg		152	90 - 110

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QC Sample Results

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-10478-A-1-F MSD				Client Sample ID: Matrix Spike Duplicate								
Matrix: Solid				Prep Type: Soluble								
Analysis Batch: 17737												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	624	F1	250	985.1	F1	mg/Kg		145	90 - 110	2	20	



## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## GC VOA

## Prep Batch: 17655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Total/NA	Solid	5035	
890-1856-2	PH01A	Total/NA	Solid	5035	
890-1856-3	PH02	Total/NA	Solid	5035	
890-1856-4	PH02A	Total/NA	Solid	5035	
890-1856-5	FS03	Total/NA	Solid	5035	
890-1856-6	FS02	Total/NA	Solid	5035	
890-1856-7	FS01	Total/NA	Solid	5035	
890-1856-8	FS04	Total/NA	Solid	5035	
MB 880-17655/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-17655/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-17655/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1855-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 17656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Total/NA	Solid	8021B	17655
890-1856-2	PH01A	Total/NA	Solid	8021B	17655
890-1856-3	PH02	Total/NA	Solid	8021B	17655
890-1856-4	PH02A	Total/NA	Solid	8021B	17655
890-1856-5	FS03	Total/NA	Solid	8021B	17655
890-1856-6	FS02	Total/NA	Solid	8021B	17655
890-1856-7	FS01	Total/NA	Solid	8021B	17655
890-1856-8	FS04	Total/NA	Solid	8021B	17655
MB 880-17655/5-A	Method Blank	Total/NA	Solid	8021B	17655
LCS 880-17655/1-A	Lab Control Sample	Total/NA	Solid	8021B	17655
LCSD 880-17655/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	17655
890-1855-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	
890-1855-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	17655

## Analysis Batch: 18058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Total/NA	Solid	Total BTEX	
890-1856-2	PH01A	Total/NA	Solid	Total BTEX	
890-1856-3	PH02	Total/NA	Solid	Total BTEX	
890-1856-4	PH02A	Total/NA	Solid	Total BTEX	
890-1856-5	FS03	Total/NA	Solid	Total BTEX	
890-1856-6	FS02	Total/NA	Solid	Total BTEX	
890-1856-7	FS01	Total/NA	Solid	Total BTEX	
890-1856-8	FS04	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 17748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Total/NA	Solid	8015NM Prep	
890-1856-2	PH01A	Total/NA	Solid	8015NM Prep	
890-1856-3	PH02	Total/NA	Solid	8015NM Prep	
890-1856-4	PH02A	Total/NA	Solid	8015NM Prep	
890-1856-5	FS03	Total/NA	Solid	8015NM Prep	
890-1856-6	FS02	Total/NA	Solid	8015NM Prep	
890-1856-7	FS01	Total/NA	Solid	8015NM Prep	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## GC Semi VOA (Continued)

## Prep Batch: 17748 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-8	FS04	Total/NA	Solid	8015NM Prep	
MB 880-17748/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-17748/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-17748/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1856-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-1856-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 17750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Total/NA	Solid	8015B NM	17748
890-1856-2	PH01A	Total/NA	Solid	8015B NM	17748
890-1856-3	PH02	Total/NA	Solid	8015B NM	17748
890-1856-4	PH02A	Total/NA	Solid	8015B NM	17748
890-1856-5	FS03	Total/NA	Solid	8015B NM	17748
890-1856-6	FS02	Total/NA	Solid	8015B NM	17748
890-1856-7	FS01	Total/NA	Solid	8015B NM	17748
890-1856-8	FS04	Total/NA	Solid	8015B NM	17748
MB 880-17748/1-A	Method Blank	Total/NA	Solid	8015B NM	17748
LCS 880-17748/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	17748
LCSD 880-17748/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	17748
890-1856-1 MS	PH01	Total/NA	Solid	8015B NM	17748
890-1856-1 MSD	PH01	Total/NA	Solid	8015B NM	17748

## Analysis Batch: 17951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Total/NA	Solid	8015 NM	
890-1856-2	PH01A	Total/NA	Solid	8015 NM	
890-1856-3	PH02	Total/NA	Solid	8015 NM	
890-1856-4	PH02A	Total/NA	Solid	8015 NM	
890-1856-5	FS03	Total/NA	Solid	8015 NM	
890-1856-6	FS02	Total/NA	Solid	8015 NM	
890-1856-7	FS01	Total/NA	Solid	8015 NM	
890-1856-8	FS04	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 17706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Soluble	Solid	DI Leach	
890-1856-2	PH01A	Soluble	Solid	DI Leach	
890-1856-3	PH02	Soluble	Solid	DI Leach	
890-1856-4	PH02A	Soluble	Solid	DI Leach	
890-1856-5	FS03	Soluble	Solid	DI Leach	
MB 880-17706/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17706/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17706/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1855-A-8-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1855-A-8-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## HPLC/IC

## Leach Batch: 17707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-6	FS02	Soluble	Solid	DI Leach	
890-1856-7	FS01	Soluble	Solid	DI Leach	
890-1856-8	FS04	Soluble	Solid	DI Leach	
MB 880-17707/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-17707/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-17707/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-10478-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-10478-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 17736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-1	PH01	Soluble	Solid	300.0	17706
890-1856-2	PH01A	Soluble	Solid	300.0	17706
890-1856-3	PH02	Soluble	Solid	300.0	17706
890-1856-4	PH02A	Soluble	Solid	300.0	17706
890-1856-5	FS03	Soluble	Solid	300.0	17706
MB 880-17706/1-A	Method Blank	Soluble	Solid	300.0	17706
LCS 880-17706/2-A	Lab Control Sample	Soluble	Solid	300.0	17706
LCSD 880-17706/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17706
890-1855-A-8-D MS	Matrix Spike	Soluble	Solid	300.0	17706
890-1855-A-8-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	17706

## Analysis Batch: 17737

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1856-6	FS02	Soluble	Solid	300.0	17707
890-1856-7	FS01	Soluble	Solid	300.0	17707
890-1856-8	FS04	Soluble	Solid	300.0	17707
MB 880-17707/1-A	Method Blank	Soluble	Solid	300.0	17707
LCS 880-17707/2-A	Lab Control Sample	Soluble	Solid	300.0	17707
LCSD 880-17707/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	17707
880-10478-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	17707
880-10478-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	17707

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Client Sample ID: PH01

Lab Sample ID: 890-1856-1

Date Collected: 01/18/22 10:00

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 19:48	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 12:17	AJ	XEN MID
Soluble	Leach	DI Leach			17706	01/25/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1	17736	01/28/22 04:39	CH	XEN MID

Client Sample ID: PH01A

Lab Sample ID: 890-1856-2

Date Collected: 01/18/22 10:15

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 20:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 13:24	AJ	XEN MID
Soluble	Leach	DI Leach			17706	01/25/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1	17736	01/28/22 04:51	CH	XEN MID

Client Sample ID: PH02

Lab Sample ID: 890-1856-3

Date Collected: 01/18/22 10:30

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 20:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 13:46	AJ	XEN MID
Soluble	Leach	DI Leach			17706	01/25/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		5	17736	01/28/22 05:03	CH	XEN MID

Client Sample ID: PH02A

Lab Sample ID: 890-1856-4

Date Collected: 01/18/22 10:45

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 21:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## Client Sample ID: PH02A

## Lab Sample ID: 890-1856-4

Date Collected: 01/18/22 10:45

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			17706	01/25/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		5	17736	01/28/22 05:15	CH	XEN MID

## Client Sample ID: FS03

## Lab Sample ID: 890-1856-5

Date Collected: 01/18/22 14:40

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 21:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 14:52	AJ	XEN MID
Soluble	Leach	DI Leach			17706	01/25/22 12:28	CH	XEN MID
Soluble	Analysis	300.0		1	17736	01/28/22 05:26	CH	XEN MID

## Client Sample ID: FS02

## Lab Sample ID: 890-1856-6

Date Collected: 01/18/22 14:45

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 22:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 15:13	AJ	XEN MID
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		10	17737	01/27/22 19:29	CH	XEN MID

## Client Sample ID: FS01

## Lab Sample ID: 890-1856-7

Date Collected: 01/18/22 14:50

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 22:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 15:36	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

## Client Sample ID: FS01

## Lab Sample ID: 890-1856-7

Date Collected: 01/18/22 14:50

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		1	17737	01/27/22 19:36	CH	XEN MID

## Client Sample ID: FS04

## Lab Sample ID: 890-1856-8

Date Collected: 01/18/22 15:00

Matrix: Solid

Date Received: 01/21/22 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			17655	01/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	17656	01/25/22 23:05	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	18058	01/28/22 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	17951	01/27/22 16:10	AJ	XEN MID
Total/NA	Prep	8015NM Prep			17748	01/26/22 08:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1	17750	01/26/22 15:57	AJ	XEN MID
Soluble	Leach	DI Leach			17707	01/25/22 12:33	CH	XEN MID
Soluble	Analysis	300.0		1	17737	01/27/22 19:44	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.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



## Method Summary

Client: WSP USA Inc.  
Project/Site: PLU #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

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 #423

Job ID: 890-1856-1  
SDG: 31403236.029 TASK #06.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1856-1	PH01	Solid	01/18/22 10:00	01/21/22 15:25	1
890-1856-2	PH01A	Solid	01/18/22 10:15	01/21/22 15:25	2
890-1856-3	PH02	Solid	01/18/22 10:30	01/21/22 15:25	1
890-1856-4	PH02A	Solid	01/18/22 10:45	01/21/22 15:25	2
890-1856-5	FS03	Solid	01/18/22 14:40	01/21/22 15:25	1
890-1856-6	FS02	Solid	01/18/22 14:45	01/21/22 15:25	1
890-1856-7	FS01	Solid	01/18/22 14:50	01/21/22 15:25	1
890-1856-8	FS04	Solid	01/18/22 15:00	01/21/22 15:25	1



## Chain of Custody

Work Order No: \_\_\_\_\_

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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Page 1 of 1

Project Manager: Benjamin Belli

Bill to: (if different)

Kyle Little

Company Name: WSP USA Inc.

Company Name: XTO Energy

Address: 3300 North A Street

Address: 3104 E Green Street

City, State ZIP: Midland, TX 79705

City, State ZIP: Carlsbad, NM 88220

Phone: 432.236.3849

Email: Alexis.Castro@wsp.com; Benjamin.Belli@wsp.com

## Work Order Comments

Program: ☐UST/☐PST ☐PRP ☐Brownfields ☐RRC ☐Superfund ☐

State of Project: Reporting Level II ☐ Level III ☐ PST/UST ☐ RRP ☐ Level IV ☐

Deliverables: EDD ☐ ADAPT ☐ Other: \_\_\_\_\_

Project Name: PLU #423

Turn Around: ☒ Routine ☐ Rush

Project Number: 31403236 029 Task #: 06.02

P.O. Number: Rush

Sampler's Name: Alexis Castro Due Date: \_\_\_\_\_

## SAMPLE RECEIPT

Temp Blank: ☒ Yes ☐ No Wet Ice: ☒ Yes ☐ No

Temperature (°C): 16.1/1.4 Thermometer ID: TMM-007

Received In tact: ☒ Yes ☐ No Correction Factor: -0.2Cooler Custody Seals: Yes ☐ No ☒ N/A Total Containers: 2Sample Custody Seals: Yes ☐ No ☒ N/A

## Sample Identification

Matrix: S Date Sampled: 01/18/2022 Time Sampled: 1000 Depth: 1'

PH01: S 01/18/2022 1015 2' 1' X X X

PH01A: S 01/18/2022 1015 2' 1' X X X

PH02: S 01/18/2022 1030 1' 1' X X X

PH02A: S 01/18/2022 1045 2' 1' X X X

FS03: S 01/18/2022 1440 1' 1' X X X

FS02: S 01/18/2022 1445 1' 1' X X X

FS01: S 01/18/2022 1450 1' 1' X X X

FS04: S 01/18/2022 1500 1' 1' X X X

AC

## Number of Containers

TPH (EPA 8015)

BTEX (EPA 0=8021)

Chloride (EPA 300.0)

## ANALYSIS REQUEST

## Work Order Notes

INC: nAPP2132248577  
 CC: 1081221001  
 API: 30-015-40710

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

## Sample Comments

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

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

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

1. *Ben Belli*2. *Joe Giff*3. *1.21.22 1545*

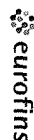
4

6

Eurofins Carlsbad

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

## Chain of Custody Record



## Environment Testing America

[illegible]

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1856-1

SDG Number: 31403236.029 TASK #06.02

Login Number: 1856

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

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: 890-1856-1

SDG Number: 31403236.029 TASK #06.02

Login Number: 1856

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 01/25/22 11:57 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	

**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 80926

CONDITIONS

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  80926
	Action Type:  [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 when P&A site.	2/16/2022