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	NAPP2036552621
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.13109 Longitude -103.92776
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Brushy Draw 161H	Site Type wellhead
Date Release Discovered 12/19/2020	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	18	25S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) .3	Volume Recovered (bbls) .2
☒ Produced Water	Volume Released (bbls) 5.7	Volume Recovered (bbls) 3.8
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release LO found a 4" 90* washed out on water dump side of tester separator from internal corrosion. Vacuum truck was dispatched and recovered standing fluid. A third-party has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2036552621
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

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

NA

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kyle Littrell Title: SH&E Supervisor

Signature: [signature] Date: 12-29-20

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

OCD Only

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

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

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

CONDITIONS

Action 23588

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland, TX79707	5380	23588	C-141

OCD Reviewer	Condition
rmarcus	None

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2036552621
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2036552621
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 06/16/2021

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

OCD Only

Received by: Date:

Incident ID	nAPP2036552621
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 06/16/2021

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

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:

Printed Name: Title:

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	nAPP2102246632
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.13316 Longitude -103.92762
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 18 BD CTB/161H	Site Type CTB
Date Release Discovered 1-18-2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	18	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 14.84	Volume Recovered (bbls) 8.0
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release LO reported a PW release from a 4" T connection upstream of the 161H water line manifold tie-in from internal corrosion. A third-party contractor has been retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2102246632
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

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

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Kyle Littrell
Title: Environmental Manager
Signature:
Date: 1-22-21
email: kyle.littrell@exxonmobil.com
Telephone: 432-221-7331

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2102246632
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2102246632
District RP	
Facility ID	
Application ID	

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 06/16/2021

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2102246632
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Kyle Littrell Title: Environmental Manager

Signature: Date: 06/16/2021

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

OCD Only

Received by: Chad Hensley Date: 07/13/2021

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

Closure Approved by: Chad Hensley Date: 07/13/2021

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

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

June 15, 2021

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

RE: Closure Request
PLU 18 Brushy Draw CTB/161H
Incident Numbers nAPP2036552621 and nAPP2102246632
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) 18 Brushy Draw CTB/161H (Site) in Unit E, Section 18, 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 two overlapping releases of crude oil and produced water at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Closure Request and requesting no further action (NFA) for Incident Numbers nAPP2036552621 and nAPP2102246632.

RELEASE BACKGROUND

Incident Number nAPP2036552621

On December 19, 2020, internal corrosion on the test separator resulted in the release of approximately 0.3 barrels (bbls) of crude oil and 5.7 bbls of produced water onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 0.2 bbls of crude oil and 3.8 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on December 29, 2020 and was assigned Incident Number nAPP2036552621.

Incident Number nAPP2102246632

On January 18, 2021, internal corrosion of a connection upstream of a water line manifold tie-in resulted in the release of approximately 14.84 bbls of produced water onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 8.0 bbls of produced water were recovered. XTO reported the release to the

NMOCD on a Form C-141 on January 22, 2021 and was assigned Incident Number nAPP2102246632.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During January 2021, WSP installed a soil boring (C-4529) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4529 was drilled to a depth of 101 feet bgs. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The Well Record and Log is included in Attachment 1. The location of the borehole is on Site in the northwest corner of the pad (approximately 0.02 miles northwest of the release extent) and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 100 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The closest continuously flowing or significant watercourse to the Site is an ephemeral, intermittent riverine located approximately 3,884 feet northeast 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 AND SOIL SAMPLING ACTIVITIES

On February 11, 2021, WSP personnel visited the Site to evaluate the release extents based on information provided on the Form C-141s and visual observations. The releases occurred in an area of active process equipment with limited access. The release extents from the two release events overlapped and were evaluated simultaneously. WSP personnel collected five preliminary assessment soil samples (SS01 through SS05) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of impacted soil. The preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Laboratory analytical results for preliminary soil samples SS01, SS02, SS04, and SS05 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for preliminary soil sample SS03 indicated that TPH-GRO/TPH-DRO concentrations equaled the Closure Criteria. Based on the laboratory analytical results, further evaluation of the release extent and excavation in the area around sample SS03 was warranted.

DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

During March and June 2021, WSP personnel returned to the Site to oversee additional site assessment activities. Twelve potholes (PH01 through PH12) were advanced using a track-mounted backhoe to a depth of 2 feet bgs to confirm the absence of impacted soil. Potholes PH02, PH06, PH08, and PH09 were advanced within the release extent in accessible locations of the active process equipment area. Potholes PH01, PH03 through PH05, PH07, and PH10 through PH12 were advanced in locations surrounding the release extent and active process equipment. Delineation soil samples were collected from each pothole from depths of 1-foot and 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride as described above. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The location of potholes PH01 through PH12 are presented on Figure 3. The delineation soil samples were collected, handled,

and analyzed as described above at Eurofins in Midland, Texas. Photographic documentation of the Site visits is included in Attachment 3.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH12 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and confirmed the absence of any additional impacted soil.

EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

On March 17, 2021, in coordination with delineation activities, WSP personnel were at the Site to oversee excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for preliminary soil sample SS03. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride as described above. Photographic documentation is included in Attachment 3.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples SW01 through SW04 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 2 feet bgs. Composite soil samples FS01 through FS05 were collected from the floor of the excavation from a depth of approximately 2 feet bgs. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above.

The excavation area measured approximately 641 square feet. A total of approximately 47 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 Orla, Texas. After completion of confirmation sampling, the excavation area was backfilled.

Laboratory analytical results for all excavation soil samples (SW01 through SW04 and FS01 through FS05) indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. The final excavation extent and excavation soil sample locations are presented on Figure 4. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the December 29, 2020 and January 18, 2021 releases of crude oil and produced water. Laboratory analytical results for the delineation and excavation soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based

on the soil sample analytical results, no further remediation was required. The excavation was backfilled with material purchased locally and recontoured to match pre-existing site conditions.

Initial response efforts, which included removal of freestanding fluids via hydrovac and excavation of impacted soil have mitigated impacts at this Site. Based on initial response efforts, soil sample laboratory analytical results compliant with the Closure Criteria, and confirmed depth to groundwater greater than 100 feet bgs, XTO respectfully requests NFA for Incident Numbers nAPP2036552621 and nAPP2102246632.

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

Sincerely,

WSP USA Inc.

Anna Byers
Consultant, Geologist

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

cc: Kyle Littrell, XTO
Bureau of Land Management

Attachments:

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

FIGURES

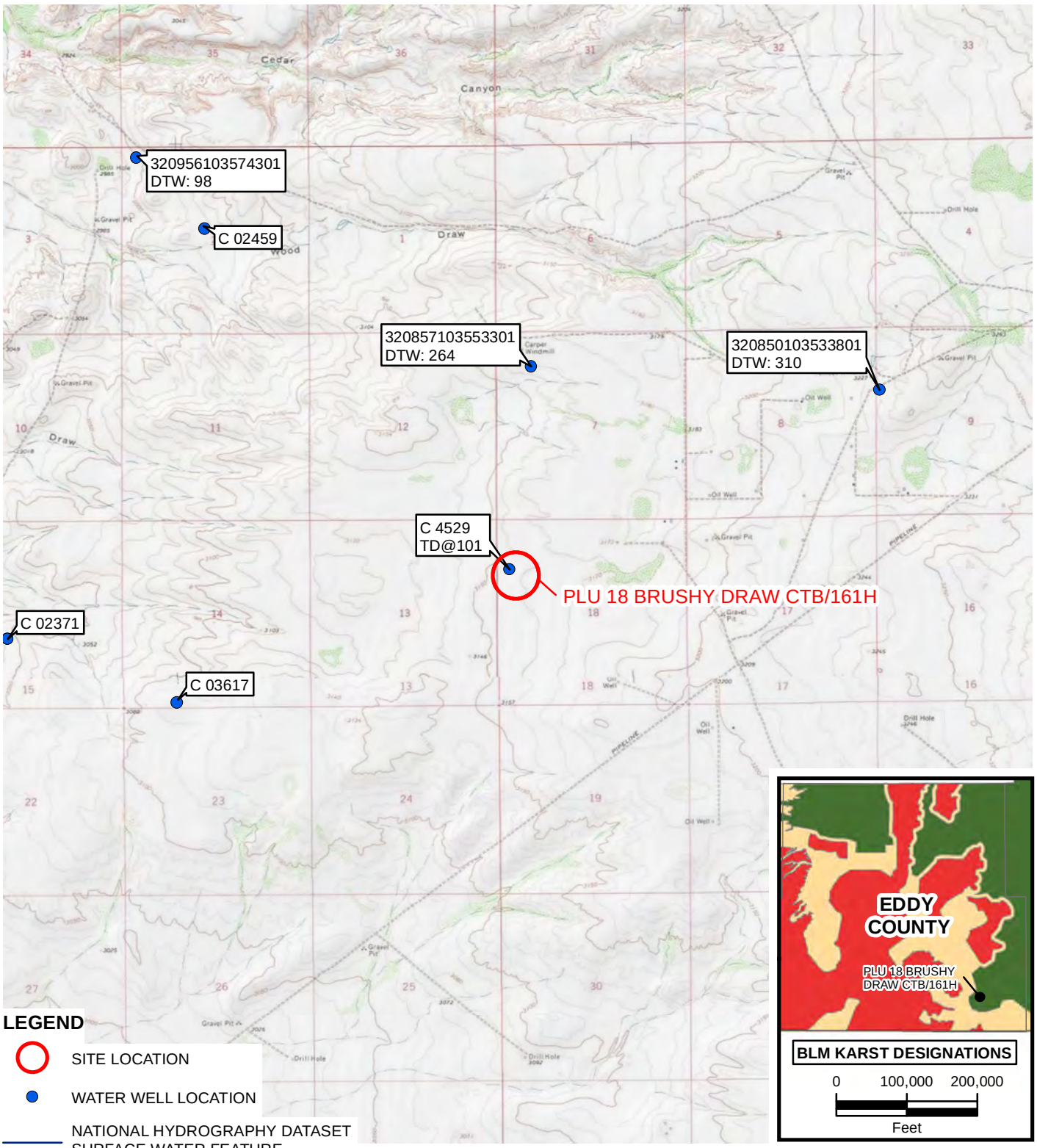

IMAGE COURTESY OF ESRI/USGS

LEGEND

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

DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBERS nAPP2036552621 & nAPP2102246632

0 4,000 8,000
Feet

N

FIGURE 1
SITE LOCATION MAP
PLU 18 BRUSHY DRAW CTB/161H
UNIT E SEC 18 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\012921019_PLU 18 BRUSHY DRAW CTB 161H\012921019_FIG01_SL_RECEPTOR_2021_1.mxd

LEGEND

IMAGE COURTESY OF ESRI

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

0 50 100
Feet

N

NOTE: INCIDENT NUMBERS nAPP2036552621 & nAPP2102246632
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
PLU 18 BRUSHY DRAW CTB/161H
UNIT E SEC 18 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921019_PLU 18 BRUSHY DRAW CTB 161H\012921019_FIG02_PRELIMINARY_2021.mxd

LEGEND

IMAGE COURTESY OF ESRI

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

0 50 100
Feet

N

NOTE: INCIDENT NUMBERS nAPP2036552621 & nAPP2102246632
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
PLU 18 BRUSHY DRAW CTB/161H
UNIT E SEC 18 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921019_PLU 18 BRUSHY DRAW CTB 161H\012921019_FIG04_DELINEATION_2021.mxd

LEGEND

IMAGE COURTESY OF ESRI

RELEASE LOCATION

FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

EXCAVATION EXTENT

0 50 100

Feet

N

NOTE: INCIDENT NUMBERS nAPP2036552621 & nAPP2102246632
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
PLU 18 BRUSHY DRAW CTB/161H
UNIT E SEC 18 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\012921019_PLU 18 BRUSHY DRAW CTB 161H\012921019_FIG03_EXCAVATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
PLU 18 Brushy Draw CTB/161H
Incident Numbers nAPP2036552621 and nAPP2102246632
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Surface Samples										
SS01	02/11/2021	0.5	<0.00200	<0.00200	<50.2	<50.2	<50.2	<49.9	<50.2	15,300
SS02	02/11/2021	0.5	<0.00199	<0.00199	<50.2	<50.2	<50.2	<49.8	<50.2	17,600
SS03	02/11/2021	0.5	<0.00202	<0.00202	<50.2	1,000	90.8	1,000	1,090	7,080
SS04	02/11/2021	0.5	<0.00202	<0.00202	<50.0	<50.0	<50.0	<49.9	<50.0	7,940
SS05	02/11/2021	0.5	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.0	<50.3	15,100
Delineation Samples										
PH01	03/16/2021	1	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	38.2
PH01A	03/16/2021	2	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	15.4
PH02	03/16/2021	1	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	<50.1	6.31
PH02A	03/16/2021	2	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	9.87
PH03	03/16/2021	1	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	21.6
PH03A	03/16/2021	2	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	281
PH04	03/16/2021	1	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	21.0
PH04A	03/16/2021	2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	5.41
PH05	03/16/2021	1	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	14.3
PH05A	03/16/2021	2	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	6.38
PH06	03/16/2021	1	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	1,640
PH06A	03/16/2021	2	<0.00201	<0.00201	<49.7	<49.7	<49.7	<49.7	<49.7	319

Table 1

Soil Analytical Results
PLU 18 Brushy Draw CTB/161H
Incident Numbers nAPP2036552621 and nAPP2102246632
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
PH07	03/16/2021	1	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	12.4
PH07A	03/16/2021	2	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	6.95
PH08	03/17/2021	1	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	1,350
PH08A	03/17/2021	2	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	2,140
PH09	03/17/2021	1	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	198
PH09A	03/17/2021	2	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	285
PH10	06/11/2021	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	124
PH10A	06/11/2021	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	37.5
PH11	06/11/2021	1	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	73.7
PH11A	06/11/2021	2	<0.00202	<0.00403	<49.7	<49.7	<49.7	<49.7	<49.7	<4.98
PH12	06/11/2021	1	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05
PH12A	06/11/2021	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<5.05
Excavation Floor Samples										
FS01	03/17/2021	2	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	44.4
FS02	03/17/2021	2	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	27.3
FS03	03/17/2021	2	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	4,010
FS04	03/17/2021	2	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	24.3
FS05	03/17/2021	2	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	95.5

Table 1

Soil Analytical Results
PLU 18 Brushy Draw CTB/161H
Incident Numbers nAPP2036552621 and nAPP2102246632
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Excavation Sidewall Samples										
SW01	03/17/2021	0 - 2	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	512
SW02	03/17/2021	0 - 2	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	613
SW03	03/17/2021	0 - 2	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	684
SW04	03/17/2021	0 - 2	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	1,170

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

WSP

ATTACHMENT 1: REFERENCED WELL RECORD

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

06/09/2021

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

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4529 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4529 Pod1.

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

Sincerely,

Lucas Middleton

Enclosures: as noted above

PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4529-POD1

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

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

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

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

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

4) Date well plugging began: 06/08/2021 Date well plugging concluded: 06/08/2021

5) GPS Well Location: Latitude: 32 deg, 8 min, 2.07 sec
Longitude: 103 deg, 55 min, 42.27 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 101 ft below ground level (bgl), by the following manner: weighted tape

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

8) Date well plugging plan of operations was approved by the State Engineer: 04/22/2021

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

Version: September 8, 2009
Page 1 of 2

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

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	Approx. 20.8 gallons	15.9 gallons	Augers	
	10'-101' Drill Cuttings	Approx. 145 gallons	145 gallons	Boring	

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

III. SIGNATURE:

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

Jack Atkins

Signature of Well Driller

06/09/2021

Date

2021-06-07_C-4529_POD1_OSE_Well Record and Log_161-forsign

Final Audit Report 2021-06-09

Created:	2021-06-09
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAx3vgpa2DXHruqslc_wdMXM5SCxHD9Hee

"2021-06-07_C-4529_POD1_OSE_Well Record and Log_161-for sign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2021-06-09 - 5:46:38 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-06-09 - 5:47:16 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2021-06-09 - 6:46:34 PM GMT- IP address: 64.90.153.232

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-06-09 - 6:47:32 PM GMT - Time Source: server- IP address: 64.90.153.232

Agreement completed.
2021-06-09 - 6:47:32 PM GMT

Adobe Sign

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (MW-1)	n/a	C-4529

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

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

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	8'	2.07"	N
	LONGITUDE	103°	55'	42.27"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

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

NW NW Sec. 18 T25S R30E

2. DRILLING & CASING INFORMATION

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

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
05/14/2021	05/14/2021	temporary well material	101	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	101	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

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

FOR OSE INTERNAL USE

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

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

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	4	4	SAND, poorly graded, fine-very grained, caliche gravel, Reddish-brown, dry	Y ✓ N	
4	29	25	CALICHE, poorly consolidated, with sand medium grained, tan-off white, dry	Y ✓ N	
29	39	10	SAND, poorly graded, fine-very grained, some caliche gravel, Tan-brown, dry	Y ✓ N	
39	54	15	SILTY SAND, poorly graded, very- fine grained, Light brown, dry	Y ✓ N	
54	59	5	SILTY SAND, poorly graded, very- fine grained, caliche gravel Light brown, dr	Y ✓ N	
59	73	14	SANDY CLAY, very-fine grained sand, low plasticity, Brown- Red Brown, moi	Y ✓ N	
73	79	6	CLAYEY SAND, low plasticity, very-fine grained sand, Brown/Red Brown, mo	Y ✓ N	
79	83	4	SANDY CLAY, very-fine grained sand, low plasticity, Brown- Dark Brown, mo	Y ✓ N	
83	94	9	SANDY CLAY, very-fine grained sand, low plasticity, Reddish Brown, moist	Y ✓ N	
94	99	5	SANDY CLAY, very-fine grained sand, low plasticity, Brown-Dark Brown, dry	Y ✓ N	
99	101	2	SANDY CLAY, very-fine grained sand, low plasticity, Earth Brown, dry	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

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

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

Shane Eldridge, Carmelo Trevino, Cameron Pruitt

6. SIGNATURE

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

Jack Atkins — Jackie D. Atkins — 06/09/2021

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

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

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	PH01	Date: 03/16/2021
	Site Name: Brushy Draw 161H	
	RP or Incident Number: nAPP2036552621 and nAPP2102246632	
	WSP Job Number: TE012921007	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method: Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	<168	0.6	N	PH01	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<168	0.3	N	PH01	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

PH02	Date: 03/16/2021
Site Name: Brushy Draw 161H	
RP or Incident Number:	
WSP Job Number: TE012921007	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: TC	Method: Excavator		
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	<168	0.5	N	PH02	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<168	0.1	N	PH02	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	PH03	Date: 03/16/2021
	Site Name: Brushy Draw 161H	
	RP or Incident Number:	
	WSP Job Number: TE012921007	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: TC		Method:Excavator	
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	<168	0.3	N	PH03	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<168	375.2	N	PH03	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	PH04	Date: 03/16/2021
	Site Name: Brushy Draw 161H	
	RP or Incident Number:	
	WSP Job Number: TE012921007	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method: Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	<168	0.3	N	PH04	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<168	0.3	N	PH04	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

PH05	Date: 03/15/2021	
Site Name: Brushy Draw 161H		
RP or Incident Number:		
WSP Job Number: TE012921007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method: Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	<168	0.8	N	PH05	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<168	0.1	N	PH05	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	PH06	Date: 03/16/2021
	Site Name: Brushy Draw 161H	
	RP or Incident Number:	
	WSP Job Number: TE012921007	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method:Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	2,604	4.7	N	PH06	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	510	0.7	N	PH06	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	PH07	Date: 03/15/2021
	Site Name: Brushy Draw 161H	
	RP or Incident Number:	
	WSP Job Number: TE012921007	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: TC		Method: Excavator	
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	<168	0.2	N	PH07	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<168	0.0	N	PH07	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

PH08	Date: 03/17/2021	
Site Name: Brushy Draw 161H		
RP or Incident Number:		
WSP Job Number: TE012921007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method: Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	2,783	0.2	N	PH08	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	1,753	0.1	N	PH08	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

PH09	Date: 03/17/2021	
Site Name: Brushy Draw 161H		
RP or Incident Number:		
WSP Job Number: TE012921007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method: Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2'	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		
D	314	0.3	N	PH09	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	207	0.0	N	PH09	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

PH10	Date: 06/11/2021	
Site Name: Brushy Draw 161H		
RP or Incident Number:		
WSP Job Number: TE012921007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method: Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2' / 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		
D	269	0.0	N	PH10	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<156.8	0.0	N	PH10	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

PH11	Date: 06/11/2021	
Site Name: Brushy Draw 161H		
RP or Incident Number:		
WSP Job Number: TE012921007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method: Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2' / 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		
D	190	0.0	N	PH11	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<156.8	0.0	N	PH11	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

PH12	Date: 06/11/2021	
Site Name: Brushy Draw 161H		
RP or Incident Number:		
WSP Job Number: TE012921007		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TC	Method:Excavator
Lat/Long: 32.133211, -103.927639	Field Screening: Hach chloride strips, PID	Hole Diame 2' / 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		
D	190	0.4	N	PH12	1	1	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor
D	<156.8	0.0	N	PH12	2	2	SP	SAND, moist, tan, poorly graded, fine-very fine grain, abundant caliche gravel, poorly consolidated, white crusting, no odor

TD @ 2 ft bgs

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 18 Brushy Draw CTB/161H Rural Eddy County, New Mexico	TE012921007 & TE012921019

Photo No.	Date
1	January 26, 2021

Western view of the release extent amongst processing equipment

Photo No.	Date
2	March 1, 2021

Southern view of release extent

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU 18 Brushy Draw CTB/161H Rural Eddy County, New Mexico	TE012921007 & TE012921019

Photo No.	Date
3	March 16, 2021

Delineation activities

Photo No.	Date
4	March 17, 2021

Western view of excavation extent

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-206-1
Laboratory Sample Delivery Group: TE012921019
Client Project/Site: PLU 18 BD CTB 161H

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

Attn: Dan Moir

JKramer

Authorized for release by:
2/18/2021 3:08:24 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Laboratory Job ID: 890-206-1
SDG: TE012921019

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-206-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Job ID: 890-206-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-206-1

Receipt
The samples were received on 2/11/2021 3:42 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 0.8°C

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

GC Semi VOA
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 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Client Sample ID: SS01

Date Collected: 02/11/21 09:31
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 19:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 19:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 19:34	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/12/21 08:56	02/16/21 19:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 19:34	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 19:34	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*106*		*70 - 130*	*02/12/21 08:56*	*02/16/21 19:34*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*02/12/21 08:56*	*02/16/21 19:34*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:29	1
Total TPH	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:29	1
>C10-C28	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:29	1
>C28-C35	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 135*	*02/12/21 09:30*	*02/12/21 19:29*	*1*
o-Terphenyl	*99*		*70 - 135*	*02/12/21 09:30*	*02/12/21 19:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15300**		198		mg/Kg			02/12/21 19:57	20

Client Sample ID: SS02

Date Collected: 02/11/21 09:33
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		02/12/21 08:56	02/16/21 19:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/12/21 08:56	02/16/21 19:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/12/21 08:56	02/16/21 19:56	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/12/21 08:56	02/16/21 19:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/12/21 08:56	02/16/21 19:56	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		02/12/21 08:56	02/16/21 19:56	1
Xylenes, Total	<0.00199	U	0.00199		mg/Kg		02/12/21 08:56	02/16/21 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*104*		*70 - 130*	*02/12/21 08:56*	*02/16/21 19:56*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*02/12/21 08:56*	*02/16/21 19:56*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:48	1
Total TPH	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:48	1
>C10-C28	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:48	1
>C28-C35	<50.2	U	50.2		mg/Kg		02/12/21 09:30	02/12/21 19:48	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-206-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019

Client Sample ID: SS02 — Lab Sample ID: 890-206-2
Date Collected: 02/11/21 09:33 **Matrix: Solid**
Date Received: 02/11/21 15:42

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 135*	*02/12/21 09:30*	*02/12/21 19:48*	*1*
o-Terphenyl	*98*		*70 - 135*	*02/12/21 09:30*	*02/12/21 19:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17600**		199	mg/Kg			02/12/21 20:14	20

Client Sample ID: SS03 — Lab Sample ID: 890-206-3
Date Collected: 02/11/21 09:36 **Matrix: Solid**
Date Received: 02/11/21 15:42

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 16:48	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 16:48	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 16:48	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		02/12/21 08:56	02/17/21 16:48	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 16:48	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 16:48	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 16:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*97*		*70 - 130*	*02/12/21 08:56*	*02/17/21 16:48*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*02/12/21 08:56*	*02/17/21 16:48*	*1*

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.2	U	50.2	mg/Kg		02/12/21 09:30	02/12/21 20:08	1
Total TPH	**1090**		50.2	mg/Kg		02/12/21 09:30	02/12/21 20:08	1
>C10-C28	**1000**		50.2	mg/Kg		02/12/21 09:30	02/12/21 20:08	1
>C28-C35	**90.8**		50.2	mg/Kg		02/12/21 09:30	02/12/21 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 135*	*02/12/21 09:30*	*02/12/21 20:08*	*1*
o-Terphenyl	*93*		*70 - 135*	*02/12/21 09:30*	*02/12/21 20:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7080**		200	mg/Kg			02/12/21 20:20	20

Client Sample ID: SS04 — Lab Sample ID: 890-206-4
Date Collected: 02/11/21 09:40 **Matrix: Solid**
Date Received: 02/11/21 15:42

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 17:10	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 17:10	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 17:10	1
m,p-Xylenes	<0.00403	U	0.00403	mg/Kg		02/12/21 08:56	02/17/21 17:10	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 17:10	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/12/21 08:56	02/17/21 17:10	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Client Sample ID: SS04

Date Collected: 02/11/21 09:40
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/12/21 08:56	02/17/21 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*108*		*70 - 130*	*02/12/21 08:56*	*02/17/21 17:10*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*02/12/21 08:56*	*02/17/21 17:10*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 21:06	1
Total TPH	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 21:06	1
>C10-C28	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 21:06	1
>C28-C35	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 135*	*02/12/21 09:30*	*02/12/21 21:06*	*1*
o-Terphenyl	*97*		*70 - 135*	*02/12/21 09:30*	*02/12/21 21:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7940**		202		mg/Kg			02/12/21 20:26	20

Client Sample ID: SS05

Date Collected: 02/11/21 09:42
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 21:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 21:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 21:03	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/12/21 08:56	02/16/21 21:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 21:03	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 21:03	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*106*		*70 - 130*	*02/12/21 08:56*	*02/16/21 21:03*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*02/12/21 08:56*	*02/16/21 21:03*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.3	U	50.3		mg/Kg		02/12/21 09:30	02/12/21 20:27	1
Total TPH	<50.3	U	50.3		mg/Kg		02/12/21 09:30	02/12/21 20:27	1
>C10-C28	<50.3	U	50.3		mg/Kg		02/12/21 09:30	02/12/21 20:27	1
>C28-C35	<50.3	U	50.3		mg/Kg		02/12/21 09:30	02/12/21 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 135*	*02/12/21 09:30*	*02/12/21 20:27*	*1*
o-Terphenyl	*88*		*70 - 135*	*02/12/21 09:30*	*02/12/21 20:27*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Client Sample ID: SS05

Date Collected: 02/11/21 09:42
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-5

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15100		200		mg/Kg			02/12/21 20:31	20

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DFBZ1 (70-130)	BFB1 (70-130)
890-206-1	SS01	106	92
890-206-2	SS02	104	92
890-206-3	SS03	97	94
890-206-4	SS04	108	90
890-206-5	SS05	106	94
890-209-A-49-C MS	Matrix Spike	100	91
890-209-A-49-D MSD	Matrix Spike Duplicate	99	92
LCS 890-258/2-A	Lab Control Sample	99	89
LCS 890-278/2-A	Lab Control Sample	100	85
LCSD 890-258/3-A	Lab Control Sample Dup	97	88
LCSD 890-278/3-A	Lab Control Sample Dup	97	83
MB 890-258/1-A	Method Blank	101	97
MB 890-278/1-A	Method Blank	106	88

Surrogate Legend

DFBZ = 1,4-Difluorobenzene
BFB = 4-Bromofluorobenzene (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 (70-135)	OTPH1 (70-135)
890-201-A-1-D MS	Matrix Spike	103	94
890-201-A-1-E MSD	Matrix Spike Duplicate	111	102
890-206-1	SS01	101	99
890-206-2	SS02	101	98
890-206-3	SS03	95	93
890-206-4	SS04	100	97
890-206-5	SS05	92	88
LCS 890-259/2-A	Lab Control Sample	118	107
LCSD 890-259/3-A	Lab Control Sample Dup	113	100
MB 890-259/1-A	Method Blank	105	103

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-258/1-A
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*101*		*70 - 130*	*02/12/21 08:56*	*02/16/21 14:00*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/12/21 08:56*	*02/16/21 14:00*	*1*

Lab Sample ID: LCS 890-258/2-A
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08349		mg/Kg		83	70 - 130		
Ethylbenzene			0.100	0.09199		mg/Kg		92	71 - 129		
Toluene			0.100	0.09361		mg/Kg		94	70 - 130		
m,p-Xylenes			0.200	0.1821		mg/Kg		91	70 - 135		
o-Xylene			0.100	0.09134		mg/Kg		91	71 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Difluorobenzene	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*89*		*70 - 130*

Lab Sample ID: LCSD 890-258/3-A
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08513		mg/Kg		85	70 - 130	2	35
Ethylbenzene			0.100	0.09410		mg/Kg		94	71 - 129	2	35
Toluene			0.100	0.09548		mg/Kg		95	70 - 130	2	35
m,p-Xylenes			0.200	0.1877		mg/Kg		94	70 - 135	3	35
o-Xylene			0.100	0.09434		mg/Kg		94	71 - 133	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Difluorobenzene	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: MB 890-278/1-A
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

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

Lab Sample ID: MB 890-278/1-A
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 278

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene	*106*		*70 - 130*	*02/16/21 11:20*	*02/17/21 13:04*	*1*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*02/16/21 11:20*	*02/17/21 13:04*	*1*

Lab Sample ID: LCS 890-278/2-A
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 278

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09183		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.08875		mg/Kg		89	71 - 129		
Toluene			0.100	0.09328		mg/Kg		93	70 - 130		
m,p-Xylenes			0.200	0.1716		mg/Kg		86	70 - 135		
o-Xylene			0.100	0.08770		mg/Kg		88	71 - 133		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Difluorobenzene	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*

Lab Sample ID: LCSD 890-278/3-A
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 278

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08639		mg/Kg		86	70 - 130	6	35
Ethylbenzene			0.100	0.08990		mg/Kg		90	71 - 129	1	35
Toluene			0.100	0.09256		mg/Kg		93	70 - 130	1	35
m,p-Xylenes			0.200	0.1739		mg/Kg		87	70 - 135	1	35
o-Xylene			0.100	0.08867		mg/Kg		89	71 - 133	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,4-Difluorobenzene	*97*		*70 - 130*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*

Lab Sample ID: 890-209-A-49-C MS
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 278

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.0196	U	0.909	0.9539		mg/Kg		105	70 - 130		
Ethylbenzene	<0.0196	U	0.909	0.9943		mg/Kg		109	71 - 129		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

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

Lab Sample ID: 890-209-A-49-C MS
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 278

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.0196	U	0.909	0.9836		mg/Kg		108	70 - 130
m,p-Xylenes	<0.0392	U	1.82	1.858		mg/Kg		102	70 - 135
o-Xylene	<0.0196	U	0.909	0.9317		mg/Kg		102	71 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Difluorobenzene	*100*		*70 - 130*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 890-209-A-49-D MSD
Matrix: Solid
Analysis Batch: 279

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 278

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.0196	U	0.980	1.009		mg/Kg		103	70 - 130	6	35
Ethylbenzene	<0.0196	U	0.980	1.078		mg/Kg		110	71 - 129	8	35
Toluene	<0.0196	U	0.980	1.046		mg/Kg		107	70 - 130	6	35
m,p-Xylenes	<0.0392	U	1.96	2.007		mg/Kg		102	70 - 135	8	35
o-Xylene	<0.0196	U	0.980	1.002		mg/Kg		102	71 - 133	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Difluorobenzene	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*

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

Lab Sample ID: MB 890-259/1-A
Matrix: Solid
Analysis Batch: 263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.0	U	50.0	mg/Kg		02/12/21 09:30	02/12/21 17:29	1
Total TPH	<50.0	U	50.0	mg/Kg		02/12/21 09:30	02/12/21 17:29	1
>C10-C28	<50.0	U	50.0	mg/Kg		02/12/21 09:30	02/12/21 17:29	1
>C28-C35	<50.0	U	50.0	mg/Kg		02/12/21 09:30	02/12/21 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 135*	*02/12/21 09:30*	*02/12/21 17:29*	*1*
o-Terphenyl	*103*		*70 - 135*	*02/12/21 09:30*	*02/12/21 17:29*	*1*

Lab Sample ID: LCS 890-259/2-A
Matrix: Solid
Analysis Batch: 263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	1000	1153		mg/Kg		115	70 - 135
>C10-C28	1000	1005		mg/Kg		101	70 - 135

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

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

Lab Sample ID: LCS 890-259/2-A
Matrix: Solid
Analysis Batch: 263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	118		70 - 135
o-Terphenyl	107		70 - 135

Lab Sample ID: LCSD 890-259/3-A
Matrix: Solid
Analysis Batch: 263

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10			1000	1122		mg/Kg		112	70 - 135	3	25
>C10-C28			1000	952.8		mg/Kg		95	70 - 135	5	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	113		70 - 135
o-Terphenyl	100		70 - 135

Lab Sample ID: 890-201-A-1-D MS
Matrix: Solid
Analysis Batch: 263

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 259

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	<50.1	U	999	988.2		mg/Kg		99	70 - 135
Total TPH	<50.1	U	2000	1791		mg/Kg		90	
>C10-C28	<50.1	U	999	802.9		mg/Kg		80	70 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	103		70 - 135
o-Terphenyl	94		70 - 135

Lab Sample ID: 890-201-A-1-E MSD
Matrix: Solid
Analysis Batch: 263

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 259

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	<50.1	U	1000	1025		mg/Kg		102	70 - 135	4	35
Total TPH	<50.1	U	2010	1896		mg/Kg		94		6	
>C10-C28	<50.1	U	1000	871.3		mg/Kg		87	70 - 135	8	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	111		70 - 135
o-Terphenyl	102		70 - 135

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-271/1-A
Matrix: Solid
Analysis Batch: 275

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			02/12/21 19:40	1

Lab Sample ID: LCS 890-271/2-A
Matrix: Solid
Analysis Batch: 275

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			500	530.0		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 890-271/3-A
Matrix: Solid
Analysis Batch: 275

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			500	530.0		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-206-1 MS
Matrix: Solid
Analysis Batch: 275

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	15300		499	15030	4	mg/Kg		-60	90 - 110		

Lab Sample ID: 890-206-1 MSD
Matrix: Solid
Analysis Batch: 275

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	15300		505	15250	4	mg/Kg		-16	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

GC VOA

Prep Batch: 258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-206-1	SS01	Total/NA	Solid	5035	
890-206-2	SS02	Total/NA	Solid	5035	
890-206-3	SS03	Total/NA	Solid	5035	
890-206-4	SS04	Total/NA	Solid	5035	
890-206-5	SS05	Total/NA	Solid	5035	
MB 890-258/1-A	Method Blank	Total/NA	Solid	5035	
LCS 890-258/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 890-258/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 890-278/1-A	Method Blank	Total/NA	Solid	5035	
LCS 890-278/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 890-278/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-209-A-49-C MS	Matrix Spike	Total/NA	Solid	5035	
890-209-A-49-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-206-1	SS01	Total/NA	Solid	8021B	258
890-206-2	SS02	Total/NA	Solid	8021B	258
890-206-3	SS03	Total/NA	Solid	8021B	258
890-206-4	SS04	Total/NA	Solid	8021B	258
890-206-5	SS05	Total/NA	Solid	8021B	258
MB 890-258/1-A	Method Blank	Total/NA	Solid	8021B	258
MB 890-278/1-A	Method Blank	Total/NA	Solid	8021B	278
LCS 890-258/2-A	Lab Control Sample	Total/NA	Solid	8021B	258
LCS 890-278/2-A	Lab Control Sample	Total/NA	Solid	8021B	278
LCSD 890-258/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	258
LCSD 890-278/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	278
890-209-A-49-C MS	Matrix Spike	Total/NA	Solid	8021B	278
890-209-A-49-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	278

GC Semi VOA

Prep Batch: 259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-206-1	SS01	Total/NA	Solid	8015NM Prep	
890-206-2	SS02	Total/NA	Solid	8015NM Prep	
890-206-3	SS03	Total/NA	Solid	8015NM Prep	
890-206-4	SS04	Total/NA	Solid	8015NM Prep	
890-206-5	SS05	Total/NA	Solid	8015NM Prep	
MB 890-259/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 890-259/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 890-259/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-201-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-201-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-206-1	SS01	Total/NA	Solid	8015B NM	259

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

GC Semi VOA (Continued)

Analysis Batch: 263 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-206-2	SS02	Total/NA	Solid	8015B NM	259
890-206-3	SS03	Total/NA	Solid	8015B NM	259
890-206-4	SS04	Total/NA	Solid	8015B NM	259
890-206-5	SS05	Total/NA	Solid	8015B NM	259
MB 890-259/1-A	Method Blank	Total/NA	Solid	8015B NM	259
LCS 890-259/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	259
LCSD 890-259/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	259
890-201-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	259
890-201-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	259

HPLC/IC

Leach Batch: 271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-206-1	SS01	Soluble	Solid	DI Leach	
890-206-2	SS02	Soluble	Solid	DI Leach	
890-206-3	SS03	Soluble	Solid	DI Leach	
890-206-4	SS04	Soluble	Solid	DI Leach	
890-206-5	SS05	Soluble	Solid	DI Leach	
MB 890-271/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-271/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-271/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-206-1 MS	SS01	Soluble	Solid	DI Leach	
890-206-1 MSD	SS01	Soluble	Solid	DI Leach	

Analysis Batch: 275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-206-1	SS01	Soluble	Solid	300.0	271
890-206-2	SS02	Soluble	Solid	300.0	271
890-206-3	SS03	Soluble	Solid	300.0	271
890-206-4	SS04	Soluble	Solid	300.0	271
890-206-5	SS05	Soluble	Solid	300.0	271
MB 890-271/1-A	Method Blank	Soluble	Solid	300.0	271
LCS 890-271/2-A	Lab Control Sample	Soluble	Solid	300.0	271
LCSD 890-271/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	271
890-206-1 MS	SS01	Soluble	Solid	300.0	271
890-206-1 MSD	SS01	Soluble	Solid	300.0	271

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Client Sample ID: SS01
Date Collected: 02/11/21 09:31
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			258	02/12/21 08:56	MC	XC
Total/NA	Analysis	8021B		1	279	02/16/21 19:34	PXS	XC
Total/NA	Prep	8015NM Prep			259	02/12/21 09:30	MC	XC
Total/NA	Analysis	8015B NM		1	263	02/12/21 19:29	BJH	XC
Soluble	Leach	DI Leach			271	02/12/21 15:56	MC	XC
Soluble	Analysis	300.0		20	275	02/12/21 19:57	BJH	XC

Client Sample ID: SS02
Date Collected: 02/11/21 09:33
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			258	02/12/21 08:56	MC	XC
Total/NA	Analysis	8021B		1	279	02/16/21 19:56	PXS	XC
Total/NA	Prep	8015NM Prep			259	02/12/21 09:30	MC	XC
Total/NA	Analysis	8015B NM		1	263	02/12/21 19:48	BJH	XC
Soluble	Leach	DI Leach			271	02/12/21 15:56	MC	XC
Soluble	Analysis	300.0		20	275	02/12/21 20:14	BJH	XC

Client Sample ID: SS03
Date Collected: 02/11/21 09:36
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			258	02/12/21 08:56	MC	XC
Total/NA	Analysis	8021B		1	279	02/17/21 16:48	PXS	XC
Total/NA	Prep	8015NM Prep			259	02/12/21 09:30	MC	XC
Total/NA	Analysis	8015B NM		1	263	02/12/21 20:08	BJH	XC
Soluble	Leach	DI Leach			271	02/12/21 15:56	MC	XC
Soluble	Analysis	300.0		20	275	02/12/21 20:20	BJH	XC

Client Sample ID: SS04
Date Collected: 02/11/21 09:40
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			258	02/12/21 08:56	MC	XC
Total/NA	Analysis	8021B		1	279	02/17/21 17:10	PXS	XC
Total/NA	Prep	8015NM Prep			259	02/12/21 09:30	MC	XC
Total/NA	Analysis	8015B NM		1	263	02/12/21 21:06	BJH	XC
Soluble	Leach	DI Leach			271	02/12/21 15:56	MC	XC
Soluble	Analysis	300.0		20	275	02/12/21 20:26	BJH	XC

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Client Sample ID: SS05

Date Collected: 02/11/21 09:42
Date Received: 02/11/21 15:42

Lab Sample ID: 890-206-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			258	02/12/21 08:56	MC	XC
Total/NA	Analysis	8021B		1	279	02/16/21 21:03	PXS	XC
Total/NA	Prep	8015NM Prep			259	02/12/21 09:30	MC	XC
Total/NA	Analysis	8015B NM		1	263	02/12/21 20:27	BJH	XC
Soluble	Leach	DI Leach			271	02/12/21 15:56	MC	XC
Soluble	Analysis	300.0		20	275	02/12/21 20:31	BJH	XC

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-206-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019

Laboratory: Eurofins Xenco, Carlsbad

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

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	06-30-21

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-206-1
SDG: TE012921019

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-206-1	SS01	Solid	02/11/21 09:31	02/11/21 15:42	
890-206-2	SS02	Solid	02/11/21 09:33	02/11/21 15:42	
890-206-3	SS03	Solid	02/11/21 09:36	02/11/21 15:42	
890-206-4	SS04	Solid	02/11/21 09:40	02/11/21 15:42	
890-206-5	SS05	Solid	02/11/21 09:42	02/11/21 15:42	

Chain of Custody

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

Work Order No: _____

Page 1 of 1

2/18/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178 Email:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w	

Work Order Comments

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

Project Name:	PLU 18 BD CTB 161H	Turn Around	
Project Number:	TE012921019	Routine	X
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	1.0/0.8	Thermometer ID		
Received Intact:	(Yes) No	IR-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:	5	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS01	S	2-11-21	0931	0.5'	1	X	X	X
SS02			0933		1	X	X	X
SS03			0936		1	X	X	X
SS04			0940		1	X	X	X
SS05			0942		1	X	X	X

ANALYSIS REQUEST

890-206 Chain of Custody

Work Order Notes

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

Sample Comments

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Travis Casey	Cole Cuff	2-11-21 1542	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-206-1
SDG Number: TE012921019

Login Number: 206
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").	True	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-371-1
Laboratory SDG: TE012921019/TE012921007
Client Project/Site: PLU 18 BD CTB 161H

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

Attn: Courtney Cook

JKramer

Authorized for release by:
3/28/2021 8:32:06 AM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Laboratory Job ID: 890-371-1
SDG: TE012921019/TE012921007

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Qualifiers

GC VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD 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.
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

Job ID: 890-371-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-371-1

Receipt
The samples were received on 3/16/2021 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH01 (890-371-1), PH01 A (890-371-2), PH02 (890-371-3), PH02 A (890-371-4), PH03 (890-371-5), PH03 A (890-371-6), PH04 (890-371-7), PH04 A (890-371-8), PH05 (890-371-9), PH05 A (890-371-10), PH06 (890-371-11), PH06 A (890-371-12), PH07 (890-371-13) and PH07 A (890-371-14).

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH01 Lab Sample ID: 890-371-1

Date Collected: 03/16/21 10:06 **Matrix: Solid**
Date Received: 03/16/21 16:45

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 02:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 02:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 02:48	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 02:48	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/21/21 11:57	03/24/21 02:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/21/21 11:57	03/24/21 02:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*03/21/21 11:57*	*03/24/21 02:48*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*03/21/21 11:57*	*03/24/21 02:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U *+ *1	50.2		mg/Kg		03/18/21 15:13	03/19/21 20:07	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 20:07	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 20:07	1
Total TPH	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*03/18/21 15:13*	*03/19/21 20:07*	*1*
o-Terphenyl	*82*		*70 - 130*	*03/18/21 15:13*	*03/19/21 20:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**38.2**		4.99		mg/Kg			03/22/21 10:41	1

Client Sample ID: PH01 A Lab Sample ID: 890-371-2

Date Collected: 03/16/21 12:03 **Matrix: Solid**
Date Received: 03/16/21 16:45

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:08	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/21/21 11:57	03/24/21 03:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/21/21 11:57	03/24/21 03:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/21/21 11:57*	*03/24/21 03:08*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/21/21 11:57*	*03/24/21 03:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U *+ *1	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:28	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH01 A
Date Collected: 03/16/21 12:03
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:28	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:28	1
Total TPH	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/18/21 15:13*	*03/19/21 20:28*	*1*
o-Terphenyl	*95*		*70 - 130*	*03/18/21 15:13*	*03/19/21 20:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.4**		4.95		mg/Kg			03/22/21 10:57	1

Client Sample ID: PH02
Date Collected: 03/16/21 10:20
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:28	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/21/21 11:57	03/24/21 03:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/21/21 11:57	03/24/21 03:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/21/21 11:57	03/24/21 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*03/21/21 11:57*	*03/24/21 03:28*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*03/21/21 11:57*	*03/24/21 03:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U *+ *1	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:49	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:49	1
OII Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:49	1
Total TPH	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*03/18/21 15:13*	*03/19/21 20:49*	*1*
o-Terphenyl	*87*		*70 - 130*	*03/18/21 15:13*	*03/19/21 20:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.31**		4.96		mg/Kg			03/22/21 11:02	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH02 A
Date Collected: 03/16/21 12:13
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-4
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 03:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 03:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 03:49	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 03:49	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/21/21 11:57	03/24/21 03:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/21/21 11:57	03/24/21 03:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*03/21/21 11:57*	*03/24/21 03:49*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/21/21 11:57*	*03/24/21 03:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U *+ *1	50.2		mg/Kg		03/18/21 15:13	03/19/21 21:10	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 21:10	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 21:10	1
Total TPH	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*03/18/21 15:13*	*03/19/21 21:10*	*1*
o-Terphenyl	*88*		*70 - 130*	*03/18/21 15:13*	*03/19/21 21:10*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.87**		4.97		mg/Kg			03/22/21 11:07	1

Client Sample ID: PH03
Date Collected: 03/16/21 10:23
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-5
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		03/21/21 11:57	03/24/21 04:30	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		03/21/21 11:57	03/24/21 04:30	1
Toluene	<0.00198	U	0.00198		mg/Kg		03/21/21 11:57	03/24/21 04:30	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		03/21/21 11:57	03/24/21 04:30	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		03/21/21 11:57	03/24/21 04:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		03/21/21 11:57	03/24/21 04:30	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		03/21/21 11:57	03/24/21 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*03/21/21 11:57*	*03/24/21 04:30*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/21/21 11:57*	*03/24/21 04:30*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+ *1	49.8		mg/Kg		03/18/21 15:13	03/19/21 21:53	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH03 Lab Sample ID: 890-371-5
Date Collected: 03/16/21 10:23 **Matrix: Solid**
Date Received: 03/16/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 21:53	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 21:53	1
Total TPH	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*03/18/21 15:13*	*03/19/21 21:53*	*1*
o-Terphenyl	*82*		*70 - 130*	*03/18/21 15:13*	*03/19/21 21:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.6**		5.04		mg/Kg			03/22/21 11:12	1

Client Sample ID: PH03 A Lab Sample ID: 890-371-6
Date Collected: 03/16/21 12:14 **Matrix: Solid**
Date Received: 03/16/21 16:45

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 04:50	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 04:50	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 04:50	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 04:50	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/21/21 11:57	03/24/21 04:50	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/21/21 11:57	03/24/21 04:50	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 04:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*03/21/21 11:57*	*03/24/21 04:50*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*03/21/21 11:57*	*03/24/21 04:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U *+ *1	50.2		mg/Kg		03/18/21 15:13	03/19/21 22:14	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 22:14	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 22:14	1
Total TPH	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/19/21 22:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*03/18/21 15:13*	*03/19/21 22:14*	*1*
o-Terphenyl	*77*		*70 - 130*	*03/18/21 15:13*	*03/19/21 22:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**281**		5.01		mg/Kg			03/22/21 11:28	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH04 — Lab Sample ID: 890-371-7

Date Collected: 03/16/21 10:50 **Matrix: Solid**
Date Received: 03/16/21 16:45

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 05:11	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 05:11	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 05:11	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 05:11	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/21/21 11:57	03/24/21 05:11	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/21/21 11:57	03/24/21 05:11	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/21/21 11:57	03/24/21 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*03/21/21 11:57*	*03/24/21 05:11*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/21/21 11:57*	*03/24/21 05:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+ *1	49.8		mg/Kg		03/18/21 15:13	03/19/21 22:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 22:36	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 22:36	1
Total TPH	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*03/18/21 15:13*	*03/19/21 22:36*	*1*
o-Terphenyl	*89*		*70 - 130*	*03/18/21 15:13*	*03/19/21 22:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.0**		4.99		mg/Kg			03/22/21 11:33	1

Client Sample ID: PH04 A — Lab Sample ID: 890-371-8

Date Collected: 03/16/21 10:52 **Matrix: Solid**
Date Received: 03/16/21 16:45

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 05:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 05:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 05:31	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 05:31	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/21/21 11:57	03/24/21 05:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/21/21 11:57	03/24/21 05:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/24/21 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/21/21 11:57*	*03/24/21 05:31*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/21/21 11:57*	*03/24/21 05:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	50.0		mg/Kg		03/18/21 15:13	03/19/21 22:57	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH04 A
Date Collected: 03/16/21 10:52
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/19/21 22:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/19/21 22:57	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/19/21 22:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*03/18/21 15:13*	*03/19/21 22:57*	*1*
o-Terphenyl	*93*		*70 - 130*	*03/18/21 15:13*	*03/19/21 22:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.41**		4.98		mg/Kg			03/22/21 11:38	1

Client Sample ID: PH05
Date Collected: 03/16/21 13:00
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-9
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:34	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:34	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		03/21/21 14:01	03/24/21 08:34	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		03/21/21 14:01	03/24/21 08:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*03/21/21 14:01*	*03/24/21 08:34*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/21/21 14:01*	*03/24/21 08:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *+ *1	49.8		mg/Kg		03/18/21 15:13	03/19/21 23:18	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 23:18	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 23:18	1
Total TPH	<49.8	U	49.8		mg/Kg		03/18/21 15:13	03/19/21 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/18/21 15:13*	*03/19/21 23:18*	*1*
o-Terphenyl	*91*		*70 - 130*	*03/18/21 15:13*	*03/19/21 23:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.3**		5.03		mg/Kg			03/22/21 11:43	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH05 A
Date Collected: 03/16/21 13:02
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-10
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:55	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/21/21 14:01	03/24/21 08:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/21/21 14:01	03/24/21 08:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/21/21 14:01*	*03/24/21 08:55*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*03/21/21 14:01*	*03/24/21 08:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.1	U *+ *1	50.1		mg/Kg		03/18/21 15:13	03/19/21 23:39	1
Diesel Range Organics (Over C10-C28)	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 23:39	1
Oil Range Organics (Over C28-C36)	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 23:39	1
Total TPH	<50.1	U	50.1		mg/Kg		03/18/21 15:13	03/19/21 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*03/18/21 15:13*	*03/19/21 23:39*	*1*
o-Terphenyl	*89*		*70 - 130*	*03/18/21 15:13*	*03/19/21 23:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.38**		5.05		mg/Kg			03/22/21 11:49	1

Client Sample ID: PH06
Date Collected: 03/16/21 12:37
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		03/21/21 14:01	03/24/21 09:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		03/21/21 14:01	03/24/21 09:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		03/21/21 14:01	03/24/21 09:15	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		03/21/21 14:01	03/24/21 09:15	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		03/21/21 14:01	03/24/21 09:15	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		03/21/21 14:01	03/24/21 09:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		03/21/21 14:01	03/24/21 09:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*03/21/21 14:01*	*03/24/21 09:15*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/21/21 14:01*	*03/24/21 09:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	50.0		mg/Kg		03/18/21 15:13	03/20/21 00:00	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH06 Lab Sample ID: 890-371-11
Date Collected: 03/16/21 12:37 **Matrix: Solid**
Date Received: 03/16/21 16:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/20/21 00:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/20/21 00:00	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/20/21 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*03/18/21 15:13*	*03/20/21 00:00*	*1*
o-Terphenyl	*99*		*70 - 130*	*03/18/21 15:13*	*03/20/21 00:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1640**		25.2		mg/Kg			03/22/21 11:54	5

Client Sample ID: PH06 A Lab Sample ID: 890-371-12
Date Collected: 03/16/21 12:38 **Matrix: Solid**
Date Received: 03/16/21 16:45

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		03/21/21 14:01	03/24/21 09:36	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		03/21/21 14:01	03/24/21 09:36	1
Toluene	<0.00201	U	0.00201		mg/Kg		03/21/21 14:01	03/24/21 09:36	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		03/21/21 14:01	03/24/21 09:36	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		03/21/21 14:01	03/24/21 09:36	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		03/21/21 14:01	03/24/21 09:36	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		03/21/21 14:01	03/24/21 09:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*03/21/21 14:01*	*03/24/21 09:36*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*03/21/21 14:01*	*03/24/21 09:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U *+ *1	49.7		mg/Kg		03/18/21 15:13	03/20/21 00:22	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		03/18/21 15:13	03/20/21 00:22	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		03/18/21 15:13	03/20/21 00:22	1
Total TPH	<49.7	U	49.7		mg/Kg		03/18/21 15:13	03/20/21 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*03/18/21 15:13*	*03/20/21 00:22*	*1*
o-Terphenyl	*107*		*70 - 130*	*03/18/21 15:13*	*03/20/21 00:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**319**		5.00		mg/Kg			03/22/21 12:09	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

Client Sample ID: PH07

Date Collected: 03/16/21 13:12
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-13

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 19:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 19:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 19:40	1
Total BTEX	<0.00199	U *1	0.00199		mg/Kg		03/26/21 10:34	03/26/21 19:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/26/21 10:34	03/26/21 19:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/26/21 10:34	03/26/21 19:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*03/26/21 10:34*	*03/26/21 19:40*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*03/26/21 10:34*	*03/26/21 19:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.2	U *+ *1	50.2		mg/Kg		03/18/21 15:13	03/20/21 00:43	1
Diesel Range Organics (Over C10-C28)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/20/21 00:43	1
Oil Range Organics (Over C28-C36)	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/20/21 00:43	1
Total TPH	<50.2	U	50.2		mg/Kg		03/18/21 15:13	03/20/21 00:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*03/18/21 15:13*	*03/20/21 00:43*	*1*
o-Terphenyl	*85*		*70 - 130*	*03/18/21 15:13*	*03/20/21 00:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.4**		4.99		mg/Kg			03/22/21 12:14	1

Client Sample ID: PH07 A

Date Collected: 03/16/21 13:16
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 20:01	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 20:01	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 20:01	1
Total BTEX	<0.00199	U *1	0.00199		mg/Kg		03/26/21 10:34	03/26/21 20:01	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/26/21 10:34	03/26/21 20:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/26/21 10:34	03/26/21 20:01	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/26/21 10:34	03/26/21 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*03/26/21 10:34*	*03/26/21 20:01*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*03/26/21 10:34*	*03/26/21 20:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	50.0		mg/Kg		03/18/21 15:13	03/20/21 01:04	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

Client Sample ID: PH07 A

Date Collected: 03/16/21 13:16
Date Received: 03/16/21 16:45

Lab Sample ID: 890-371-14

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/20/21 01:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/20/21 01:04	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/20/21 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*03/18/21 15:13*	*03/20/21 01:04*	*1*
o-Terphenyl	*107*		*70 - 130*	*03/18/21 15:13*	*03/20/21 01:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.95**		4.98		mg/Kg			03/22/21 12:30	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-371-1	PH01	111	101
890-371-2	PH01 A	116	100
890-371-3	PH02	123	91
890-371-4	PH02 A	115	103
890-371-5	PH03	115	102
890-371-6	PH03 A	120	103
890-371-7	PH04	113	102
890-371-8	PH04 A	112	102
890-371-9	PH05	112	102
890-371-10	PH05 A	110	100
890-371-11	PH06	110	102
890-371-12	PH06 A	116	102
890-371-13	PH07	125	106
890-371-14	PH07 A	129	105
LCS 880-647/1-A	Lab Control Sample	103	101
LCS 880-688/1-A	Lab Control Sample	102	100
LCS 880-902/1-A	Lab Control Sample	100	102
LCSD 880-647/2-A	Lab Control Sample Dup	106	99
LCSD 880-688/2-A	Lab Control Sample Dup	104	100
LCSD 880-902/2-A	Lab Control Sample Dup	112	105
MB 880-647/5-A	Method Blank	104	95
MB 880-657/5-A	Method Blank	104	96
MB 880-688/5-A	Method Blank	106	96
MB 880-902/5-A	Method Blank	102	98

Surrogate Legend

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

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID		
890-371-9 MSD	PH05		
LCSD 880-657/2-A	Lab Control Sample Dup		

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-371-1	PH01	84	82
890-371-2	PH01 A	95	95
890-371-3	PH02	92	87

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-371-4	PH02 A	91	88
890-371-5	PH03	84	82
890-371-6	PH03 A	80	77
890-371-7	PH04	96	89
890-371-8	PH04 A	98	93
890-371-9	PH05	100	91
890-371-10	PH05 A	95	89
890-371-11	PH06	100	99
890-371-12	PH06 A	109	107
890-371-13	PH07	89	85
890-371-14	PH07 A	112	107
LCS 880-569/2-A	Lab Control Sample	113	106
LCSD 880-569/3-A	Lab Control Sample Dup	115	108
MB 880-569/1-A	Method Blank	115	119

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-647/5-A
Matrix: Solid
Analysis Batch: 734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/23/21 21:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/23/21 21:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/23/21 21:39	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/23/21 21:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/21/21 11:57	03/23/21 21:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/21/21 11:57	03/23/21 21:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/21/21 11:57	03/23/21 21:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/21/21 11:57*	*03/23/21 21:39*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*03/21/21 11:57*	*03/23/21 21:39*	*1*

Lab Sample ID: LCS 880-647/1-A
Matrix: Solid
Analysis Batch: 734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1078		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1113		mg/Kg		111	70 - 130
Toluene	0.100	0.1095		mg/Kg		109	70 - 130
m-Xylene & p-Xylene	0.200	0.2271		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1123		mg/Kg		112	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-647/2-A
Matrix: Solid
Analysis Batch: 734

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 647

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1046		mg/Kg		105	70 - 130	3	35
Ethylbenzene	0.100	0.1108		mg/Kg		111	70 - 130	0	35
Toluene	0.100	0.1085		mg/Kg		108	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2274		mg/Kg		114	70 - 130	0	35
o-Xylene	0.100	0.1109		mg/Kg		111	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-657/5-A
Matrix: Solid
Analysis Batch: 734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 657

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:06	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

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

Lab Sample ID: MB 880-657/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 734 **Prep Batch: 657**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:06	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/21/21 14:01	03/24/21 08:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/21/21 14:01	03/24/21 08:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/21/21 14:01	03/24/21 08:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*03/21/21 14:01*	*03/24/21 08:06*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/21/21 14:01*	*03/24/21 08:06*	*1*

Lab Sample ID: LCSD 880-657/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 734 **Prep Batch: 657**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1020		mg/Kg					
Ethylbenzene			0.100	0.1075		mg/Kg					
Toluene			0.100	0.1041		mg/Kg					
m-Xylene & p-Xylene			0.200	0.2194		mg/Kg					
o-Xylene			0.100	0.1088		mg/Kg					

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

Lab Sample ID: 890-371-9 MSD **Client Sample ID: PH05**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 734 **Prep Batch: 657**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.06879		mg/Kg					
Ethylbenzene	<0.00200	U	0.0990	0.07282		mg/Kg					
Toluene	<0.00200	U	0.0990	0.07117		mg/Kg					
m-Xylene & p-Xylene	<0.00401	U	0.198	0.1518		mg/Kg					
o-Xylene	<0.00200	U	0.0990	0.07632		mg/Kg					

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

Lab Sample ID: MB 880-688/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 734 **Prep Batch: 688**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/22/21 11:15	03/23/21 10:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/22/21 11:15	03/23/21 10:39	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

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

Lab Sample ID: MB 880-688/5-A
Matrix: Solid
Analysis Batch: 734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 688

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200		mg/Kg		03/22/21 11:15	03/23/21 10:39	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/22/21 11:15	03/23/21 10:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/22/21 11:15	03/23/21 10:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/22/21 11:15	03/23/21 10:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/22/21 11:15	03/23/21 10:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*03/22/21 11:15*	*03/23/21 10:39*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*03/22/21 11:15*	*03/23/21 10:39*	*1*

Lab Sample ID: LCS 880-688/1-A
Matrix: Solid
Analysis Batch: 734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 688

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1084		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1193		mg/Kg		119	70 - 130
Toluene	0.100	0.1157		mg/Kg		116	70 - 130
m-Xylene & p-Xylene	0.200	0.2466		mg/Kg		123	70 - 130
o-Xylene	0.100	0.1163		mg/Kg		116	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-688/2-A
Matrix: Solid
Analysis Batch: 734

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 688

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1127		mg/Kg		113	70 - 130	4	35
Ethylbenzene	0.100	0.1217		mg/Kg		122	70 - 130	2	35
Toluene	0.100	0.1184		mg/Kg		118	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.2508		mg/Kg		125	70 - 130	2	35
o-Xylene	0.100	0.1193		mg/Kg		119	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 880-902/5-A
Matrix: Solid
Analysis Batch: 903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		03/26/21 10:34	03/26/21 13:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/26/21 10:34	03/26/21 13:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/26/21 10:34	03/26/21 13:53	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

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

Lab Sample ID: MB 880-902/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 903 **Prep Batch: 902**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00200	U	0.00200		mg/Kg		03/26/21 10:34	03/26/21 13:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		03/26/21 10:34	03/26/21 13:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		03/26/21 10:34	03/26/21 13:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/26/21 10:34	03/26/21 13:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*03/26/21 10:34*	*03/26/21 13:53*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*03/26/21 10:34*	*03/26/21 13:53*	*1*

Lab Sample ID: LCS 880-902/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 903 **Prep Batch: 902**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08298		mg/Kg		83	70 - 130
Ethylbenzene	0.100	0.07992		mg/Kg		80	70 - 130
Toluene	0.100	0.07886		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1601		mg/Kg		80	70 - 130
o-Xylene	0.100	0.08122		mg/Kg		81	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-902/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 903 **Prep Batch: 902**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1044		mg/Kg		104	70 - 130	23	35
Ethylbenzene	0.100	0.1041		mg/Kg		104	70 - 130	26	35
Toluene	0.100	0.09862		mg/Kg		99	70 - 130	22	35
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130	28	35
o-Xylene	0.100	0.1119		mg/Kg		112	70 - 130	32	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

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

Lab Sample ID: MB 880-569/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 619 **Prep Batch: 569**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/19/21 16:14	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

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

Lab Sample ID: MB 880-569/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 619 **Prep Batch: 569**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/19/21 16:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/19/21 16:14	1
Total TPH	<50.0	U	50.0		mg/Kg		03/18/21 15:13	03/19/21 16:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*03/18/21 15:13*	*03/19/21 16:14*	*1*
o-Terphenyl	*119*		*70 - 130*	*03/18/21 15:13*	*03/19/21 16:14*	*1*

Lab Sample ID: LCS 880-569/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 619 **Prep Batch: 569**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1456	*+	mg/Kg		146	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1043		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*106*		*70 - 130*

Lab Sample ID: LCSD 880-569/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 619 **Prep Batch: 569**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1142	*1	mg/Kg		114	70 - 130	24	20
Diesel Range Organics (Over C10-C28)			1000	1080		mg/Kg		108	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-644/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.463	U	0.463		mg/Kg			03/22/21 10:26	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-644/2-A
Matrix: Solid
Analysis Batch: 672

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	253.2		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-644/3-A
Matrix: Solid
Analysis Batch: 672

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	255.2		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-371-1 MS
Matrix: Solid
Analysis Batch: 672

Client Sample ID: PH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	38.2		250	300.9		mg/Kg		105	90 - 110		

Lab Sample ID: 890-371-1 MSD
Matrix: Solid
Analysis Batch: 672

Client Sample ID: PH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	38.2		250	300.7		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-371-11 MS
Matrix: Solid
Analysis Batch: 672

Client Sample ID: PH06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	1640		252	2943	4	mg/Kg		516	90 - 110		

Lab Sample ID: 890-371-11 MSD
Matrix: Solid
Analysis Batch: 672

Client Sample ID: PH06
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1640		252	3045	4	mg/Kg		557	90 - 110	3	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

GC VOA

Prep Batch: 647

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-1	PH01	Total/NA	Solid	5035	
890-371-2	PH01 A	Total/NA	Solid	5035	
890-371-3	PH02	Total/NA	Solid	5035	
890-371-4	PH02 A	Total/NA	Solid	5035	
890-371-5	PH03	Total/NA	Solid	5035	
890-371-6	PH03 A	Total/NA	Solid	5035	
890-371-7	PH04	Total/NA	Solid	5035	
890-371-8	PH04 A	Total/NA	Solid	5035	
MB 880-647/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-647/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-647/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-9	PH05	Total/NA	Solid	5035	
890-371-10	PH05 A	Total/NA	Solid	5035	
890-371-11	PH06	Total/NA	Solid	5035	
890-371-12	PH06 A	Total/NA	Solid	5035	
MB 880-657/5-A	Method Blank	Total/NA	Solid	5035	
LCSD 880-657/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-371-9 MSD	PH05	Total/NA	Solid	5035	

Prep Batch: 688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-688/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-688/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-688/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-1	PH01	Total/NA	Solid	8021B	647
890-371-2	PH01 A	Total/NA	Solid	8021B	647
890-371-3	PH02	Total/NA	Solid	8021B	647
890-371-4	PH02 A	Total/NA	Solid	8021B	647
890-371-5	PH03	Total/NA	Solid	8021B	647
890-371-6	PH03 A	Total/NA	Solid	8021B	647
890-371-7	PH04	Total/NA	Solid	8021B	647
890-371-8	PH04 A	Total/NA	Solid	8021B	647
890-371-9	PH05	Total/NA	Solid	8021B	657
890-371-10	PH05 A	Total/NA	Solid	8021B	657
890-371-11	PH06	Total/NA	Solid	8021B	657
890-371-12	PH06 A	Total/NA	Solid	8021B	657
MB 880-647/5-A	Method Blank	Total/NA	Solid	8021B	647
MB 880-657/5-A	Method Blank	Total/NA	Solid	8021B	657
MB 880-688/5-A	Method Blank	Total/NA	Solid	8021B	688
LCS 880-647/1-A	Lab Control Sample	Total/NA	Solid	8021B	647
LCS 880-688/1-A	Lab Control Sample	Total/NA	Solid	8021B	688
LCSD 880-647/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	647
LCSD 880-657/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	657
LCSD 880-688/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	688
890-371-9 MSD	PH05	Total/NA	Solid	8021B	657

QC Association Summary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

GC VOA

Prep Batch: 902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-13	PH07	Total/NA	Solid	5035	
890-371-14	PH07 A	Total/NA	Solid	5035	
MB 880-902/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-902/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-902/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-13	PH07	Total/NA	Solid	8021B	902
890-371-14	PH07 A	Total/NA	Solid	8021B	902
MB 880-902/5-A	Method Blank	Total/NA	Solid	8021B	902
LCS 880-902/1-A	Lab Control Sample	Total/NA	Solid	8021B	902
LCSD 880-902/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	902

GC Semi VOA

Prep Batch: 569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-1	PH01	Total/NA	Solid	8015NM Prep	
890-371-2	PH01 A	Total/NA	Solid	8015NM Prep	
890-371-3	PH02	Total/NA	Solid	8015NM Prep	
890-371-4	PH02 A	Total/NA	Solid	8015NM Prep	
890-371-5	PH03	Total/NA	Solid	8015NM Prep	
890-371-6	PH03 A	Total/NA	Solid	8015NM Prep	
890-371-7	PH04	Total/NA	Solid	8015NM Prep	
890-371-8	PH04 A	Total/NA	Solid	8015NM Prep	
890-371-9	PH05	Total/NA	Solid	8015NM Prep	
890-371-10	PH05 A	Total/NA	Solid	8015NM Prep	
890-371-11	PH06	Total/NA	Solid	8015NM Prep	
890-371-12	PH06 A	Total/NA	Solid	8015NM Prep	
890-371-13	PH07	Total/NA	Solid	8015NM Prep	
890-371-14	PH07 A	Total/NA	Solid	8015NM Prep	
MB 880-569/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-569/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-569/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-1	PH01	Total/NA	Solid	8015B NM	569
890-371-2	PH01 A	Total/NA	Solid	8015B NM	569
890-371-3	PH02	Total/NA	Solid	8015B NM	569
890-371-4	PH02 A	Total/NA	Solid	8015B NM	569
890-371-5	PH03	Total/NA	Solid	8015B NM	569
890-371-6	PH03 A	Total/NA	Solid	8015B NM	569
890-371-7	PH04	Total/NA	Solid	8015B NM	569
890-371-8	PH04 A	Total/NA	Solid	8015B NM	569
890-371-9	PH05	Total/NA	Solid	8015B NM	569
890-371-10	PH05 A	Total/NA	Solid	8015B NM	569
890-371-11	PH06	Total/NA	Solid	8015B NM	569
890-371-12	PH06 A	Total/NA	Solid	8015B NM	569
890-371-13	PH07	Total/NA	Solid	8015B NM	569

QC Association Summary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

GC Semi VOA (Continued)

Analysis Batch: 619 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-14	PH07 A	Total/NA	Solid	8015B NM	569
MB 880-569/1-A	Method Blank	Total/NA	Solid	8015B NM	569
LCS 880-569/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	569
LCSD 880-569/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	569

HPLC/IC

Leach Batch: 644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-1	PH01	Soluble	Solid	DI Leach	
890-371-2	PH01 A	Soluble	Solid	DI Leach	
890-371-3	PH02	Soluble	Solid	DI Leach	
890-371-4	PH02 A	Soluble	Solid	DI Leach	
890-371-5	PH03	Soluble	Solid	DI Leach	
890-371-6	PH03 A	Soluble	Solid	DI Leach	
890-371-7	PH04	Soluble	Solid	DI Leach	
890-371-8	PH04 A	Soluble	Solid	DI Leach	
890-371-9	PH05	Soluble	Solid	DI Leach	
890-371-10	PH05 A	Soluble	Solid	DI Leach	
890-371-11	PH06	Soluble	Solid	DI Leach	
890-371-12	PH06 A	Soluble	Solid	DI Leach	
890-371-13	PH07	Soluble	Solid	DI Leach	
890-371-14	PH07 A	Soluble	Solid	DI Leach	
MB 880-644/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-644/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-644/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-371-1 MS	PH01	Soluble	Solid	DI Leach	
890-371-1 MSD	PH01	Soluble	Solid	DI Leach	
890-371-11 MS	PH06	Soluble	Solid	DI Leach	
890-371-11 MSD	PH06	Soluble	Solid	DI Leach	

Analysis Batch: 672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-1	PH01	Soluble	Solid	300.0	644
890-371-2	PH01 A	Soluble	Solid	300.0	644
890-371-3	PH02	Soluble	Solid	300.0	644
890-371-4	PH02 A	Soluble	Solid	300.0	644
890-371-5	PH03	Soluble	Solid	300.0	644
890-371-6	PH03 A	Soluble	Solid	300.0	644
890-371-7	PH04	Soluble	Solid	300.0	644
890-371-8	PH04 A	Soluble	Solid	300.0	644
890-371-9	PH05	Soluble	Solid	300.0	644
890-371-10	PH05 A	Soluble	Solid	300.0	644
890-371-11	PH06	Soluble	Solid	300.0	644
890-371-12	PH06 A	Soluble	Solid	300.0	644
890-371-13	PH07	Soluble	Solid	300.0	644
890-371-14	PH07 A	Soluble	Solid	300.0	644
MB 880-644/1-A	Method Blank	Soluble	Solid	300.0	644
LCS 880-644/2-A	Lab Control Sample	Soluble	Solid	300.0	644
LCSD 880-644/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	644
890-371-1 MS	PH01	Soluble	Solid	300.0	644

QC Association Summary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

HPLC/IC (Continued)

Analysis Batch: 672 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-371-1 MSD	PH01	Soluble	Solid	300.0	644
890-371-11 MS	PH06	Soluble	Solid	300.0	644
890-371-11 MSD	PH06	Soluble	Solid	300.0	644

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH01 Lab Sample ID: 890-371-1
Date Collected: 03/16/21 10:06 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 02:48	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 20:07	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 10:41	CH	XM

Client Sample ID: PH01 A Lab Sample ID: 890-371-2
Date Collected: 03/16/21 12:03 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 03:08	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 20:28	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 10:57	CH	XM

Client Sample ID: PH02 Lab Sample ID: 890-371-3
Date Collected: 03/16/21 10:20 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 03:28	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 20:49	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:02	CH	XM

Client Sample ID: PH02 A Lab Sample ID: 890-371-4
Date Collected: 03/16/21 12:13 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 03:49	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 21:10	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:07	CH	XM

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH03 — Lab Sample ID: 890-371-5

Date Collected: 03/16/21 10:23 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 04:30	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 21:53	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:12	CH	XM

Client Sample ID: PH03 A — Lab Sample ID: 890-371-6

Date Collected: 03/16/21 12:14 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 04:50	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 22:14	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:28	CH	XM

Client Sample ID: PH04 — Lab Sample ID: 890-371-7

Date Collected: 03/16/21 10:50 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 05:11	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 22:36	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:33	CH	XM

Client Sample ID: PH04 A — Lab Sample ID: 890-371-8

Date Collected: 03/16/21 10:52 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			647	03/21/21 11:57	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 05:31	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 22:57	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:38	CH	XM

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH05 Lab Sample ID: 890-371-9
Date Collected: 03/16/21 13:00 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			657	03/21/21 14:01	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 08:34	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 23:18	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:43	CH	XM

Client Sample ID: PH05 A Lab Sample ID: 890-371-10
Date Collected: 03/16/21 13:02 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			657	03/21/21 14:01	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 08:55	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/19/21 23:39	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 11:49	CH	XM

Client Sample ID: PH06 Lab Sample ID: 890-371-11
Date Collected: 03/16/21 12:37 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			657	03/21/21 14:01	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 09:15	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/20/21 00:00	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		5	672	03/22/21 11:54	CH	XM

Client Sample ID: PH06 A Lab Sample ID: 890-371-12
Date Collected: 03/16/21 12:38 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			657	03/21/21 14:01	MR	XM
Total/NA	Analysis	8021B		1	734	03/24/21 09:36	MR	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/20/21 00:22	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 12:09	CH	XM

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Client Sample ID: PH07 Lab Sample ID: 890-371-13

Date Collected: 03/16/21 13:12 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			902	03/26/21 10:34	KL	XM
Total/NA	Analysis	8021B		1	903	03/26/21 19:40	KL	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/20/21 00:43	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 12:14	CH	XM

Client Sample ID: PH07 A Lab Sample ID: 890-371-14

Date Collected: 03/16/21 13:16 **Matrix: Solid**
Date Received: 03/16/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			902	03/26/21 10:34	KL	XM
Total/NA	Analysis	8021B		1	903	03/26/21 20:01	KL	XM
Total/NA	Prep	8015NM Prep			569	03/18/21 15:13	DM	XM
Total/NA	Analysis	8015B NM		1	619	03/20/21 01:04	AM	XM
Soluble	Leach	DI Leach			644	03/21/21 11:10	AJ	XM
Soluble	Analysis	300.0		1	672	03/22/21 12:30	CH	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-371-1
Project/Site: PLU 18 BD CTB 161H SDG: TE012921019/TE012921007

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD CTB 161H

Job ID: 890-371-1
SDG: TE012921019/TE012921007

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-371-1	PH01	Solid	03/16/21 10:06	03/16/21 16:45	
890-371-2	PH01 A	Solid	03/16/21 12:03	03/16/21 16:45	
890-371-3	PH02	Solid	03/16/21 10:20	03/16/21 16:45	
890-371-4	PH02 A	Solid	03/16/21 12:13	03/16/21 16:45	
890-371-5	PH03	Solid	03/16/21 10:23	03/16/21 16:45	
890-371-6	PH03 A	Solid	03/16/21 12:14	03/16/21 16:45	
890-371-7	PH04	Solid	03/16/21 10:50	03/16/21 16:45	
890-371-8	PH04 A	Solid	03/16/21 10:52	03/16/21 16:45	
890-371-9	PH05	Solid	03/16/21 13:00	03/16/21 16:45	
890-371-10	PH05 A	Solid	03/16/21 13:02	03/16/21 16:45	
890-371-11	PH06	Solid	03/16/21 12:37	03/16/21 16:45	
890-371-12	PH06 A	Solid	03/16/21 12:38	03/16/21 16:45	
890-371-13	PH07	Solid	03/16/21 13:12	03/16/21 16:45	
890-371-14	PH07 A	Solid	03/16/21 13:16	03/16/21 16:45	

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Kalie Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

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

Project Name:	PLU 18 BD CTB 161H	Turn Around	
Project Number:	TE01292101A/TE01292100J	Routine	A
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	4.0/3.8	Thermometer ID	IR#1-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
PH01	S	3.16.21	1004	1'	1	✓	✓	✓
PH01A			1203	2'	1	✓	✓	✓
PH02			1020	1'	1	✓	✓	✓
PH02A			1213	2'	1	✓	✓	✓
PH03			1023	1'	1	✓	✓	✓
PH03A			1214	2'	1	✓	✓	✓
PH04			1050	1'	1	✓	✓	✓
PH04A			1052	2'	1	✓	✓	✓
PH05			1300	1'	1	✓	✓	✓
PH05A			1302	2'	1	✓	✓	✓

890-371 Chain of Custody

Work Order Notes

Incident #s
nAPP2102241632
nAPP2036552621
CL #s
1665771001
1632501001
API:
30-015-44897

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

Sample Comments

Discide

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Travis Casey	Cloe Cuta	3.16.21 1645			
3				4		
5				6		

Revised Date 051418 Rev 2018.1

XENCO LABORATORIES

Chain of Custody

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

Work Order No: ______

www.xenco.com Page 2 of 2

3/28/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178	Email:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

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

Project Name:	PLU 18 3D CTB 161 H	**Turn Around**	
Project Number:	TE012921019/TE012921007	Routine	✓
P.O. Number:		Rush:	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT

Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):		Thermometer ID	
Received Intact:	Yes No		See Pg 1
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH06	S	3-16-21	1237	1'	1	✓	✓	✓	Discrete
PH06A	|	|	1238	2'	1	✓	✓	✓	|
PH07	|	|	1312	1'	1	✓	✓	✓	|
PH07A	|	|	1316	2'	1	✓	✓	✓	|

Work Order Notes

Incident #s
nAPP2102246632
nAPP2036552621
C.C #s
1665771001
1632501001
API:
30-015-44847

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

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	[signature]	3-16-21 1645	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-104 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-371-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 3/23/2021			Preservation Codes
City: Midland	TAT Requested (days):			A - HCL; B NaOH; C - Zn Acetate; D - Nitric Acid; E NaHSO4; F MeOH; G - Amchlor; H Ascorbic Acid; I Ice; J DI Water; K - EDTA; L EDA; M Hexane; N - None; O AsNaO2; P Na2O4S; Q - Na2SO3; R Na2S2O3; S - H2SO4; T TSP Dodecahydrate; U - Acetone; V - MCAA; W pH 4-5; Z other (specify)
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			Other:
Project Name: PLU 18 BD CTB 161H	Project #: 88000107			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8021B/5035FP_Calc BTEX	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
PH01 (890-371-1)	3/16/21	10 06 Mountain		Solid			X	X	X	1	
PH01 A (890-371-2)	3/16/21	12 03 Mountain		Solid			X	X	X	1	
PH02 (890-371-3)	3/16/21	10 20 Mountain		Solid			X	X	X	1	
PH02 A (890-371-4)	3/16/21	12 13 Mountain		Solid			X	X	X	1	
PH03 (890-371-5)	3/16/21	10 23 Mountain		Solid			X	X	X	1	
PH03 A (890-371-6)	3/16/21	12 14 Mountain		Solid			X	X	X	1	
PH04 (890-371-7)	3/16/21	10 50 Mountain		Solid			X	X	X	1	
PH04 A (890-371-8)	3/16/21	10 52 Mountain		Solid			X	X	X	1	
PH05 (890-371-9)	3/16/21	13 00 Mountain		Solid			X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time.	Method of Shipment:

Relinquished by: Cloe Cifuentes 3-17-21 1011p	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 11/01/2020

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-104 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-371-1
Address: 1211 W Florida Ave	Due Date Requested: 3/23/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: PLU 18 BD CTB 161H	Project #: 88000107			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8021B/5035FP_Calc BTEX	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
~~PH05 A (890-371-10)~~	~~3/16/21~~	13:02 Mountain		Solid			X	X	X	1	
PH06 (890-371-11)	3/16/21	12 37 Mountain		Solid			X	X	X	1	
PH06 A (890-371-12)	3/16/21	12 38 Mountain		Solid			X	X	X	1	
PH07 (890-371-13)	3/16/21	13 12 Mountain		Solid			X	X	X	1	
PH07 A (890-371-14)	3/16/21	13 16 Mountain		Solid			X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Nico Gotta 3-17-21 1016			J Kramer	3/17/21 1415	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

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

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-371-1
SDG Number: TE012921019/TE012921007

Login Number: 371
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: 890-371-1
SDG Number: TE012921019/TE012921007

Login Number: 371
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Midland
List Creation: 03/17/21 02:26 PM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

Job Number: 890-383-1

Job Description: PLU 18 BD CTB 161H

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

Attention: Dan Moir

Approved for release.
Jessica Kramer
Project Manager
3/29/2021 7:08 PM

Jessica Kramer, Project Manager
1211 W. Florida Ave, Midland, TX, 79701
jessica.kramer@eurofinset.com
03/29/2021

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

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.

Eurofins Xenco, Carlsbad
1089 N Canal St., Carlsbad, NM 88220
Tel (575) 988-3199 Fax (575) 988-3199 www.EurofinsUS.com

Client Sample Result Summary

Client: WSP USA Inc.

Job ID: 890-383-1

Project/Site: PLU 18 BD CTB 161H

Lab Sample ID:	890-383-1	890-383-2	890-383-3	890-383-4	890-383-5
Client Sample ID:	FS01	FS02	FS03	FS04	FS05
Depth:	2	2	2	2	2
Matrix:	Solid	Solid	Solid	Solid	Solid
Date Collected:	03/17/2021 09:21	03/17/2021 11:06	03/17/2021 12:25	03/17/2021 13:32	03/17/2021 13:34

Method: 8021B - Volatile Organic Compounds (GC)

Prepared:	03/26/2021 14:55		03/26/2021 14:55		03/26/2021 14:55		03/26/2021 14:55		03/26/2021 14:55	
Analyzed:	03/27/2021 06:34		03/27/2021 06:54		03/27/2021 07:15		03/27/2021 07:35		03/27/2021 07:55	
Analyte	**Unit/RL:** mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00199 U	0.00199
Ethylbenzene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00199 U	0.00199
Toluene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00199 U	0.00199
Total BTEX	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00199 U	0.00199
Xylenes, Total	<0.00400 U	0.00400	<0.00399 U	0.00399	<0.00397 U	0.00397	<0.00402 U	0.00402	<0.00398 U	0.00398
m-Xylene & p-Xylene	<0.00400 U	0.00400	<0.00399 U	0.00399	<0.00397 U	0.00397	<0.00402 U	0.00402	<0.00398 U	0.00398
o-Xylene	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00199 U	0.00199

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

Prepared:	03/24/2021 09:46		03/24/2021 09:46		03/24/2021 09:46		03/24/2021 09:46		03/24/2021 09:46	
Analyzed:	03/25/2021 12:39		03/25/2021 13:43		03/25/2021 14:04		03/25/2021 14:25		03/25/2021 14:47	
Analyte	**Unit/RL:** mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10	<49.9 U	49.9	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0
Diesel Range Organics (Over C10-C28)	<49.9 U	49.9	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0
OII Range Organics (Over C28-C36)	<49.9 U	49.9	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0
Total TPH	<49.9 U	49.9	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0

Method: 300.0 - Anions, Ion Chromatography - Soluble

Prepared:										
Analyzed:	03/24/2021 21:26		03/24/2021 21:31		03/24/2021 21:36		03/24/2021 21:42		03/24/2021 21:47	
Analyte	**Unit/RL:** mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride	**44.4**	5.04	**27.3**	5.00	**4010**	25.0	**24.3**	5.00	**95.5**	4.95

Client Sample Result Summary

Client: WSP USA Inc.

Job ID: 890-383-1

Project/Site: PLU 18 BD CTB 161H

Lab Sample ID:	890-383-6	890-383-7	890-383-8	890-383-9	890-383-10
Client Sample ID:	SW01	SW02	SW03	SW04	PH08
Depth:	0 - 2	0 - 2	0 - 2	0 - 2	1
Matrix:	Solid	Solid	Solid	Solid	Solid
Date Collected:	03/17/2021 11:03	03/17/2021 11:05	03/17/2021 11:08	03/17/2021 13:36	03/17/2021 14:46

Method: 8021B - Volatile Organic Compounds (GC)

Prepared:	03/26/2021 14:55		03/26/2021 14:55		03/26/2021 14:55		03/26/2021 14:28		03/26/2021 14:28	
Analyzed:	03/27/2021 08:16		03/27/2021 08:36		03/27/2021 08:57		03/27/2021 10:56		03/27/2021 02:18	
Analyte	**Unit/RL:** mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
Ethylbenzene	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
Toluene	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
Total BTEX	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199
Xylenes, Total	<0.00400 U	0.00400	<0.00396 U	0.00396	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398
m-Xylene & p-Xylene	<0.00400 U	0.00400	<0.00396 U	0.00396	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398
o-Xylene	<0.00200 U	0.00200	<0.00198 U	0.00198	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199

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

Prepared:	03/24/2021 09:46		03/24/2021 09:46		03/24/2021 09:46		03/24/2021 09:46		03/24/2021 09:46	
Analyzed:	03/25/2021 15:08		03/25/2021 15:29		03/25/2021 15:50		03/25/2021 16:12		03/25/2021 16:33	
Analyte	**Unit/RL:** mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10	<50.1 U	50.1	<49.9 U	49.9	<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9
Diesel Range Organics (Over C10-C28)	<50.1 U	50.1	<49.9 U	49.9	<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9
OII Range Organics (Over C28-C36)	<50.1 U	50.1	<49.9 U	49.9	<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9
Total TPH	<50.1 U	50.1	<49.9 U	49.9	<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9

Method: 300.0 - Anions, Ion Chromatography - Soluble

Prepared:										
Analyzed:	03/23/2021 17:20		03/23/2021 17:26		03/23/2021 17:41		03/23/2021 17:46		03/23/2021 17:51	
Analyte	**Unit/RL:** mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride	**512**	4.95	**613**	4.96	**684**	4.99	**1170**	4.95	**1350**	24.8

Client Sample Result Summary

Client: WSP USA Inc.

Job ID: 890-383-1

Project/Site: PLU 18 BD CTB 161H

Lab Sample ID:	890-383-11	890-383-12	890-383-13
Client Sample ID:	PH08A	PH09	PH09A
Depth:	2	1	2
Matrix:	Solid	Solid	Solid
Date Collected:	03/17/2021 14:47	03/17/2021 15:01	03/17/2021 15:03

Method: 8021B - Volatile Organic Compounds (GC)

	Prepared:	03/26/2021 14:28		03/26/2021 14:28		03/26/2021 14:28	
	Analyzed:	03/27/2021 02:39		03/27/2021 02:59		03/27/2021 03:20	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00198 U	0.00198	<0.00200 U	0.00200	<0.00200 U	0.00200
Ethylbenzene		<0.00198 U	0.00198	<0.00200 U	0.00200	<0.00200 U	0.00200
Toluene		<0.00198 U	0.00198	<0.00200 U	0.00200	<0.00200 U	0.00200
Total BTEX		<0.00198 U	0.00198	<0.00200 U	0.00200	<0.00200 U	0.00200
Xylenes, Total		<0.00397 U	0.00397	<0.00399 U	0.00399	<0.00399 U	0.00399
m-Xylene & p-Xylene		<0.00397 U	0.00397	<0.00399 U	0.00399	<0.00399 U	0.00399
o-Xylene		<0.00198 U	0.00198	<0.00200 U	0.00200	<0.00200 U	0.00200

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

	Prepared:	03/24/2021 09:46		03/24/2021 09:46		03/24/2021 09:46	
	Analyzed:	03/25/2021 17:15		03/25/2021 17:36		03/25/2021 17:57	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<50.0 U	50.0	<49.8 U	49.8	<49.9 U	49.9
Diesel Range Organics (Over C10-C28)		<50.0 U	50.0	<49.8 U	49.8	<49.9 U	49.9
OII Range Organics (Over C28-C36)		<50.0 U	50.0	<49.8 U	49.8	<49.9 U	49.9
Total TPH		<50.0 U	50.0	<49.8 U	49.8	<49.9 U	49.9

Method: 300.0 - Anions, Ion Chromatography - Soluble

	Prepared:						
	Analyzed:	03/23/2021 17:57		03/23/2021 18:02		03/23/2021 18:07	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		**2140**	24.9	**198**	4.99	**285**	4.98

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-800-1
Client Project/Site: PLU 18 BD 161H

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

Attn: Kalei Jennings

JKRAMER

Authorized for release by:
6/14/2021 4:09:12 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Laboratory Job ID: 890-800-1

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-800-1
Project/Site: PLU 18 BD 161H

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

Job ID: 890-800-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-800-1

Receipt
The samples were received on 6/11/2021 11:31 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 3.2°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH11 (890-800-1) and PH11A (890-800-2).

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: PH11 (890-800-1), PH11A (890-800-2), (890-799-A-9-C), (890-799-A-9-A MS) and (890-799-A-9-B MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

Client Sample ID: PH11

Lab Sample ID: 890-800-1
Matrix: Solid
Date Collected: 06/11/21 08:48
Date Received: 06/11/21 11:31
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/13/21 03:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/13/21 03:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/13/21 03:22	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/12/21 11:00	06/13/21 03:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/13/21 03:22	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/12/21 11:00	06/13/21 03:22	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/12/21 11:00	06/13/21 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*06/12/21 11:00*	*06/13/21 03:22*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*06/12/21 11:00*	*06/13/21 03:22*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *-	49.8		mg/Kg		06/13/21 10:54	06/14/21 02:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U *-	49.8		mg/Kg		06/13/21 10:54	06/14/21 02:30	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/13/21 10:54	06/14/21 02:30	1
Total TPH	<49.8	U	49.8		mg/Kg		06/13/21 10:54	06/14/21 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*06/13/21 10:54*	*06/14/21 02:30*	*1*
o-Terphenyl	*74*		*70 - 130*	*06/13/21 10:54*	*06/14/21 02:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**73.7**		5.04		mg/Kg			06/14/21 12:14	1

Client Sample ID: PH11A

Lab Sample ID: 890-800-2
Matrix: Solid
Date Collected: 06/11/21 08:50
Date Received: 06/11/21 11:31
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/12/21 11:00	06/13/21 03:42	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/12/21 11:00	06/13/21 03:42	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/12/21 11:00	06/13/21 03:42	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		06/12/21 11:00	06/13/21 03:42	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/12/21 11:00	06/13/21 03:42	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		06/12/21 11:00	06/13/21 03:42	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		06/12/21 11:00	06/13/21 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*06/12/21 11:00*	*06/13/21 03:42*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*06/12/21 11:00*	*06/13/21 03:42*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-800-1
Project/Site: PLU 18 BD 161H

Client Sample ID: PH11A **Lab Sample ID: 890-800-2**
Date Collected: 06/11/21 08:50 **Matrix: Solid**
Date Received: 06/11/21 11:31
Sample Depth: - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U *-	49.7		mg/Kg		06/13/21 10:54	06/14/21 02:51	1
Diesel Range Organics (Over C10-C28)	<49.7	U *-	49.7		mg/Kg		06/13/21 10:54	06/14/21 02:51	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/13/21 10:54	06/14/21 02:51	1
Total TPH	<49.7	U	49.7		mg/Kg		06/13/21 10:54	06/14/21 02:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*06/13/21 10:54*	*06/14/21 02:51*	*1*
o-Terphenyl	*76*		*70 - 130*	*06/13/21 10:54*	*06/14/21 02:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			06/14/21 12:31	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-800-1	PH11	103	112
890-800-2	PH11A	114	120
LCS 880-4043/1-A	Lab Control Sample	91	100
LCSD 880-4043/2-A	Lab Control Sample Dup	87	101
MB 880-4043/5-A	Method Blank	100	97

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-800-1	PH11	82	74
890-800-2	PH11A	82	76
LCS 880-4071/2-A	Lab Control Sample	94	79
LCSD 880-4071/3-A	Lab Control Sample Dup	89	78
MB 880-4071/1-A	Method Blank	88	80

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4043/5-A
Matrix: Solid
Analysis Batch: 4046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4043

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/12/21 19:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/12/21 19:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/12/21 19:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/12/21 11:00	06/12/21 19:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:00	06/12/21 19:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/12/21 11:00	06/12/21 19:47	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/12/21 11:00	06/12/21 19:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*06/12/21 11:00*	*06/12/21 19:47*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/12/21 11:00*	*06/12/21 19:47*	*1*

Lab Sample ID: LCS 880-4043/1-A
Matrix: Solid
Analysis Batch: 4046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4043

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09634		mg/Kg		96	70 - 130		
Toluene			0.100	0.09954		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.09843		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.1904		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.09576		mg/Kg		96	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-4043/2-A
Matrix: Solid
Analysis Batch: 4046

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4043

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08389		mg/Kg		84	70 - 130	14	35
Toluene			0.100	0.09050		mg/Kg		91	70 - 130	10	35
Ethylbenzene			0.100	0.09040		mg/Kg		90	70 - 130	9	35
m-Xylene & p-Xylene			0.200	0.1887		mg/Kg		94	70 - 130	1	35
o-Xylene			0.100	0.08744		mg/Kg		87	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

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

Lab Sample ID: MB 880-4071/1-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4071

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
Total TPH	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*06/13/21 10:54*	*06/13/21 23:23*	*1*
o-Terphenyl	*80*		*70 - 130*	*06/13/21 10:54*	*06/13/21 23:23*	*1*

Lab Sample ID: LCS 880-4071/2-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4071

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000000	930.4	*-	mg/Kg		0.09	70 - 130		
Diesel Range Organics (Over C10-C28)			1000000	996.5	*-	mg/Kg		0.1	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

Lab Sample ID: LCSD 880-4071/3-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4071

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000000	904.4	*-	mg/Kg		0.09	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000000	1004	*-	mg/Kg		0.1	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4076/1-A
Matrix: Solid
Analysis Batch: 4082

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/14/21 11:25	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-4076/2-A
Matrix: Solid
Analysis Batch: 4082

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	244.4		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-4076/3-A
Matrix: Solid
Analysis Batch: 4082

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	244.2		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

GC VOA

Prep Batch: 4043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-800-1	PH11	Total/NA	Solid	5035	
890-800-2	PH11A	Total/NA	Solid	5035	
MB 880-4043/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4043/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4043/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 4046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-800-1	PH11	Total/NA	Solid	8021B	4043
890-800-2	PH11A	Total/NA	Solid	8021B	4043
MB 880-4043/5-A	Method Blank	Total/NA	Solid	8021B	4043
LCS 880-4043/1-A	Lab Control Sample	Total/NA	Solid	8021B	4043
LCSD 880-4043/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4043

GC Semi VOA

Analysis Batch: 4067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-800-1	PH11	Total/NA	Solid	8015B NM	4071
890-800-2	PH11A	Total/NA	Solid	8015B NM	4071
MB 880-4071/1-A	Method Blank	Total/NA	Solid	8015B NM	4071
LCS 880-4071/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4071
LCSD 880-4071/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4071

Prep Batch: 4071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-800-1	PH11	Total/NA	Solid	8015NM Prep	
890-800-2	PH11A	Total/NA	Solid	8015NM Prep	
MB 880-4071/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4071/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4071/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 4076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-800-1	PH11	Soluble	Solid	DI Leach	
890-800-2	PH11A	Soluble	Solid	DI Leach	
MB 880-4076/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4076/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4076/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 4082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-800-1	PH11	Soluble	Solid	300.0	4076
890-800-2	PH11A	Soluble	Solid	300.0	4076
MB 880-4076/1-A	Method Blank	Soluble	Solid	300.0	4076
LCS 880-4076/2-A	Lab Control Sample	Soluble	Solid	300.0	4076
LCSD 880-4076/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4076

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-800-1
Project/Site: PLU 18 BD 161H

Client Sample ID: PH11 Lab Sample ID: 890-800-1

Date Collected: 06/11/21 08:48 **Matrix: Solid**
Date Received: 06/11/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4043	06/12/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	4046	06/13/21 03:22	KL	XEN MID
Total/NA	Prep	8015NM Prep			4071	06/13/21 10:54	AM	XEN MID
Total/NA	Analysis	8015B NM		1	4067	06/14/21 02:30	AJ	XEN MID
Soluble	Leach	DI Leach			4076	06/14/21 09:53	CH	XEN MID
Soluble	Analysis	300.0		1	4082	06/14/21 12:14	CH	XEN MID

Client Sample ID: PH11A Lab Sample ID: 890-800-2

Date Collected: 06/11/21 08:50 **Matrix: Solid**
Date Received: 06/11/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4043	06/12/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	4046	06/13/21 03:42	KL	XEN MID
Total/NA	Prep	8015NM Prep			4071	06/13/21 10:54	AM	XEN MID
Total/NA	Analysis	8015B NM		1	4067	06/14/21 02:51	AJ	XEN MID
Soluble	Leach	DI Leach			4076	06/14/21 09:53	CH	XEN MID
Soluble	Analysis	300.0		1	4082	06/14/21 12:31	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Job ID: 890-800-1
Project/Site: PLU 18 BD 161H

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-800-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-800-1	PH11	Solid	06/11/21 08:48	06/11/21 11:31	- 1
890-800-2	PH11A	Solid	06/11/21 08:50	06/11/21 11:31	- 2

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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6/14/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178 Email:		travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

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

Project Name:	PLU 18 BD 161H	Turn Around	
Project Number:		Routine	
P.O. Number:		Rush: 24hr.	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.4 / 3.2	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH11	S	6-11-21	0848	1'	1	✓	✓	✓	Composite
PH11A	S	6-11-21	0850	2'	1	✓	✓	✓	composite

890-800 Chain of Custody

Work Order Notes

IN:nAPP2102246632/
nAPP203655261
CC:1665771001/1632501001
AFE:DD.2017.01793.CAP.CMI
API:30-015-44897

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/11/21 11:31	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc. Job Number: 890-800-1

Login Number: 800 **List Source: Eurofins Xenco, Carlsbad**
List Number: 1
Creator: Ordonez, Gabby

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: 890-800-1

Login Number: 800 **List Source: Eurofins Xenco, Midland**
List Number: 2 **List Creation: 06/12/21 04:19 PM**
Creator: Kramer, Jessica

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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-801-1
Client Project/Site: PLU 18 BD 161H

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

Attn: Kalei Jennings

JKRAMER

Authorized for release by:
6/14/2021 4:10:29 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Laboratory Job ID: 890-801-1

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-801-1
Project/Site: PLU 18 BD 161H

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

Job ID: 890-801-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-801-1

Receipt
The samples were received on 6/11/2021 11:31 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 3.2°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH10 (890-801-1) and PH10A (890-801-2).

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

Client Sample ID: PH10

Lab Sample ID: 890-801-1

Date Collected: 06/11/21 09:01
Matrix: Solid
Date Received: 06/11/21 11:31
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 22:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 22:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 22:53	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/12/21 11:30	06/12/21 22:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 22:53	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/12/21 11:30	06/12/21 22:53	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/12/21 11:30	06/12/21 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*06/12/21 11:30*	*06/12/21 22:53*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/12/21 11:30*	*06/12/21 22:53*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:12	1
Total TPH	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*06/13/21 10:54*	*06/14/21 03:12*	*1*
o-Terphenyl	*73*		*70 - 130*	*06/13/21 10:54*	*06/14/21 03:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**124**		4.96		mg/Kg			06/14/21 12:36	1

Client Sample ID: PH10A

Lab Sample ID: 890-801-2

Date Collected: 06/11/21 09:05
Matrix: Solid
Date Received: 06/11/21 11:31
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		06/12/21 11:30	06/12/21 23:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/12/21 11:30	06/12/21 23:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/12/21 11:30	06/12/21 23:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/12/21 11:30	06/12/21 23:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/12/21 11:30	06/12/21 23:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/12/21 11:30	06/12/21 23:14	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/12/21 11:30	06/12/21 23:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*06/12/21 11:30*	*06/12/21 23:14*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/12/21 11:30*	*06/12/21 23:14*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

Client Sample ID: PH10A
Date Collected: 06/11/21 09:05
Date Received: 06/11/21 11:31
Sample Depth: - 2

Lab Sample ID: 890-801-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:33	1
Diesel Range Organics (Over C10-C28)	<50.0	U *-	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:33	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:33	1
Total TPH	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/14/21 03:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*06/13/21 10:54*	*06/14/21 03:33*	*1*
o-Terphenyl	*73*		*70 - 130*	*06/13/21 10:54*	*06/14/21 03:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**37.5**		4.95		mg/Kg			06/14/21 12:42	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-801-1	PH10	95	95
890-801-2	PH10A	97	91
LCS 880-4041/1-A	Lab Control Sample	115	104
LCSD 880-4041/2-A	Lab Control Sample Dup	115	104
MB 880-4041/5-A	Method Blank	90	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-801-1	PH10	80	73
890-801-2	PH10A	81	73
LCS 880-4071/2-A	Lab Control Sample	94	79
LCSD 880-4071/3-A	Lab Control Sample Dup	89	78
MB 880-4071/1-A	Method Blank	88	80

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4041/5-A
Matrix: Solid
Analysis Batch: 4044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4041

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/12/21 11:30	06/12/21 19:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*06/12/21 11:30*	*06/12/21 19:49*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/12/21 11:30*	*06/12/21 19:49*	*1*

Lab Sample ID: LCS 880-4041/1-A
Matrix: Solid
Analysis Batch: 4044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4041

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1007		mg/Kg		101	70 - 130		
Toluene			0.100	0.09649		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.1005		mg/Kg		101	70 - 130		
m-Xylene & p-Xylene			0.200	0.2175		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1095		mg/Kg		109	70 - 130		

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

Lab Sample ID: LCSD 880-4041/2-A
Matrix: Solid
Analysis Batch: 4044

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4041

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09597		mg/Kg		96	70 - 130	5	35
Toluene			0.100	0.09182		mg/Kg		92	70 - 130	5	35
Ethylbenzene			0.100	0.09593		mg/Kg		96	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2070		mg/Kg		104	70 - 130	5	35
o-Xylene			0.100	0.1044		mg/Kg		104	70 - 130	5	35

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

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

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

Lab Sample ID: MB 880-4071/1-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4071

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
Total TPH	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*06/13/21 10:54*	*06/13/21 23:23*	*1*
o-Terphenyl	*80*		*70 - 130*	*06/13/21 10:54*	*06/13/21 23:23*	*1*

Lab Sample ID: LCS 880-4071/2-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4071

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000000	930.4	*-	mg/Kg		0.09	70 - 130		
Diesel Range Organics (Over C10-C28)			1000000	996.5	*-	mg/Kg		0.1	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

Lab Sample ID: LCSD 880-4071/3-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4071

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000000	904.4	*-	mg/Kg		0.09	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000000	1004	*-	mg/Kg		0.1	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4076/1-A
Matrix: Solid
Analysis Batch: 4082

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/14/21 11:25	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-4076/2-A
Matrix: Solid
Analysis Batch: 4082

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	244.4		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-4076/3-A
Matrix: Solid
Analysis Batch: 4082

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	244.2		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

GC VOA

Prep Batch: 4041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-801-1	PH10	Total/NA	Solid	5035	
890-801-2	PH10A	Total/NA	Solid	5035	
MB 880-4041/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4041/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4041/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 4044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-801-1	PH10	Total/NA	Solid	8021B	4041
890-801-2	PH10A	Total/NA	Solid	8021B	4041
MB 880-4041/5-A	Method Blank	Total/NA	Solid	8021B	4041
LCS 880-4041/1-A	Lab Control Sample	Total/NA	Solid	8021B	4041
LCSD 880-4041/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4041

GC Semi VOA

Analysis Batch: 4067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-801-1	PH10	Total/NA	Solid	8015B NM	4071
890-801-2	PH10A	Total/NA	Solid	8015B NM	4071
MB 880-4071/1-A	Method Blank	Total/NA	Solid	8015B NM	4071
LCS 880-4071/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4071
LCSD 880-4071/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4071

Prep Batch: 4071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-801-1	PH10	Total/NA	Solid	8015NM Prep	
890-801-2	PH10A	Total/NA	Solid	8015NM Prep	
MB 880-4071/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4071/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4071/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 4076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-801-1	PH10	Soluble	Solid	DI Leach	
890-801-2	PH10A	Soluble	Solid	DI Leach	
MB 880-4076/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4076/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4076/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 4082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-801-1	PH10	Soluble	Solid	300.0	4076
890-801-2	PH10A	Soluble	Solid	300.0	4076
MB 880-4076/1-A	Method Blank	Soluble	Solid	300.0	4076
LCS 880-4076/2-A	Lab Control Sample	Soluble	Solid	300.0	4076
LCSD 880-4076/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4076

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-801-1
Project/Site: PLU 18 BD 161H

Client Sample ID: PH10 Lab Sample ID: 890-801-1

Date Collected: 06/11/21 09:01 **Matrix: Solid**
Date Received: 06/11/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4041	06/12/21 11:30	KL	XEN MID
Total/NA	Analysis	8021B		1	4044	06/12/21 22:53	KL	XEN MID
Total/NA	Prep	8015NM Prep			4071	06/13/21 10:54	AM	XEN MID
Total/NA	Analysis	8015B NM		1	4067	06/14/21 03:12	AJ	XEN MID
Soluble	Leach	DI Leach			4076	06/14/21 09:53	CH	XEN MID
Soluble	Analysis	300.0		1	4082	06/14/21 12:36	CH	XEN MID

Client Sample ID: PH10A Lab Sample ID: 890-801-2

Date Collected: 06/11/21 09:05 **Matrix: Solid**
Date Received: 06/11/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4041	06/12/21 11:30	KL	XEN MID
Total/NA	Analysis	8021B		1	4044	06/12/21 23:14	KL	XEN MID
Total/NA	Prep	8015NM Prep			4071	06/13/21 10:54	AM	XEN MID
Total/NA	Analysis	8015B NM		1	4067	06/14/21 03:33	AJ	XEN MID
Soluble	Leach	DI Leach			4076	06/14/21 09:53	CH	XEN MID
Soluble	Analysis	300.0		1	4082	06/14/21 12:42	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Job ID: 890-801-1
Project/Site: PLU 18 BD 161H

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-801-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-801-1	PH10	Solid	06/11/21 09:01	06/11/21 11:31	- 1
890-801-2	PH10A	Solid	06/11/21 09:05	06/11/21 11:31	- 2

Chain of Custody

XENCO LABORATORIES

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

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Work Order No: _____

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178 Email:	travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w	

Work Order Comments

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

Project Name:	PLU 18 BD 161H	Turn Around	
Project Number:		Routine	
P.O. Number:		Rush: 24hr	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.4/3.2	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

IN:nAPP2102246632/
nAPP203655261
CC:1665771001/1632501001
AFE:DD.2017.01793.CAP.CMI
API:30-015-44897

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH10	S	6-11-21	0901	1'	1	✓	✓	✓	Composite
PH10A	S	6-11-21	0905	2'	1	✓	✓	✓	Composite

890-801 Chain of Custody

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/11/21 11:31	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc. Job Number: 890-801-1

Login Number: 801 **List Source: Eurofins Xenco, Carlsbad**
List Number: 1
Creator: Ordonez, Gabby

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: 890-801-1

Login Number: 801 **List Source: Eurofins Xenco, Midland**
List Number: 2 **List Creation: 06/12/21 04:19 PM**
Creator: Kramer, Jessica

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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-802-1
Client Project/Site: PLU 18 BD 161H

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

Attn: Dan Moir

JKRAMER

Authorized for release by:
6/14/2021 4:11:48 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Laboratory Job ID: 890-802-1

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-802-1
Project/Site: PLU 18 BD 161H

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

Job ID: 890-802-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-802-1

Receipt
The samples were received on 6/11/2021 11:31 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 3.2°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH12 (890-802-1) and PH12A (890-802-2).

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

Client Sample ID: PH12

Lab Sample ID: 890-802-1

Date Collected: 06/11/21 08:39
Matrix: Solid
Date Received: 06/11/21 11:31
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/12/21 11:30	06/13/21 00:35	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/12/21 11:30	06/13/21 00:35	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/12/21 11:30	06/13/21 00:35	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		06/12/21 11:30	06/13/21 00:35	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/12/21 11:30	06/13/21 00:35	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		06/12/21 11:30	06/13/21 00:35	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		06/12/21 11:30	06/13/21 00:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*06/12/21 11:30*	*06/13/21 00:35*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/12/21 11:30*	*06/13/21 00:35*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		06/13/21 10:54	06/14/21 03:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		06/13/21 10:54	06/14/21 03:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/13/21 10:54	06/14/21 03:54	1
Total TPH	<49.9	U	49.9		mg/Kg		06/13/21 10:54	06/14/21 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*06/13/21 10:54*	*06/14/21 03:54*	*1*
o-Terphenyl	*73*		*70 - 130*	*06/13/21 10:54*	*06/14/21 03:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			06/14/21 12:47	1

Client Sample ID: PH12A

Lab Sample ID: 890-802-2

Date Collected: 06/11/21 08:42
Matrix: Solid
Date Received: 06/11/21 11:31
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		06/12/21 11:30	06/13/21 00:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/12/21 11:30	06/13/21 00:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/12/21 11:30	06/13/21 00:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/12/21 11:30	06/13/21 00:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/12/21 11:30	06/13/21 00:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/12/21 11:30	06/13/21 00:56	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/12/21 11:30	06/13/21 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*06/12/21 11:30*	*06/13/21 00:56*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/12/21 11:30*	*06/13/21 00:56*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

Client Sample ID: PH12A
Date Collected: 06/11/21 08:42
Date Received: 06/11/21 11:31
Sample Depth: - 2

Lab Sample ID: 890-802-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		06/13/21 10:54	06/14/21 04:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U *-	49.9		mg/Kg		06/13/21 10:54	06/14/21 04:15	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/13/21 10:54	06/14/21 04:15	1
Total TPH	<49.9	U	49.9		mg/Kg		06/13/21 10:54	06/14/21 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*06/13/21 10:54*	*06/14/21 04:15*	*1*
o-Terphenyl	*78*		*70 - 130*	*06/13/21 10:54*	*06/14/21 04:15*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05		mg/Kg			06/14/21 12:53	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-802-1	PH12	85	97
890-802-2	PH12A	86	95
LCS 880-4041/1-A	Lab Control Sample	115	104
LCSD 880-4041/2-A	Lab Control Sample Dup	115	104
MB 880-4041/5-A	Method Blank	90	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-802-1	PH12	80	73
890-802-2	PH12A	85	78
LCS 880-4071/2-A	Lab Control Sample	94	79
LCSD 880-4071/3-A	Lab Control Sample Dup	89	78
MB 880-4071/1-A	Method Blank	88	80

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4041/5-A
Matrix: Solid
Analysis Batch: 4044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4041

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/12/21 11:30	06/12/21 19:49	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/12/21 11:30	06/12/21 19:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*06/12/21 11:30*	*06/12/21 19:49*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/12/21 11:30*	*06/12/21 19:49*	*1*

Lab Sample ID: LCS 880-4041/1-A
Matrix: Solid
Analysis Batch: 4044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4041

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1007		mg/Kg		101	70 - 130		
Toluene			0.100	0.09649		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.1005		mg/Kg		101	70 - 130		
m-Xylene & p-Xylene			0.200	0.2175		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1095		mg/Kg		109	70 - 130		

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

Lab Sample ID: LCSD 880-4041/2-A
Matrix: Solid
Analysis Batch: 4044

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4041

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09597		mg/Kg		96	70 - 130	5	35
Toluene			0.100	0.09182		mg/Kg		92	70 - 130	5	35
Ethylbenzene			0.100	0.09593		mg/Kg		96	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2070		mg/Kg		104	70 - 130	5	35
o-Xylene			0.100	0.1044		mg/Kg		104	70 - 130	5	35

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

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

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

Lab Sample ID: MB 880-4071/1-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4071

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1
Total TPH	<50.0	U	50.0		mg/Kg		06/13/21 10:54	06/13/21 23:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*06/13/21 10:54*	*06/13/21 23:23*	*1*
o-Terphenyl	*80*		*70 - 130*	*06/13/21 10:54*	*06/13/21 23:23*	*1*

Lab Sample ID: LCS 880-4071/2-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4071

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000000	930.4	*-	mg/Kg		0.09	70 - 130		
Diesel Range Organics (Over C10-C28)			1000000	996.5	*-	mg/Kg		0.1	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*79*		*70 - 130*

Lab Sample ID: LCSD 880-4071/3-A
Matrix: Solid
Analysis Batch: 4067

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4071

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000000	904.4	*-	mg/Kg		0.09	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000000	1004	*-	mg/Kg		0.1	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*78*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4076/1-A
Matrix: Solid
Analysis Batch: 4082

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/14/21 11:25	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-4076/2-A
Matrix: Solid
Analysis Batch: 4082

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	244.4		mg/Kg		98	90 - 110

Lab Sample ID: LCSD 880-4076/3-A
Matrix: Solid
Analysis Batch: 4082

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	244.2		mg/Kg		98	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

GC VOA

Prep Batch: 4041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-802-1	PH12	Total/NA	Solid	5035	
890-802-2	PH12A	Total/NA	Solid	5035	
MB 880-4041/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4041/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4041/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 4044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-802-1	PH12	Total/NA	Solid	8021B	4041
890-802-2	PH12A	Total/NA	Solid	8021B	4041
MB 880-4041/5-A	Method Blank	Total/NA	Solid	8021B	4041
LCS 880-4041/1-A	Lab Control Sample	Total/NA	Solid	8021B	4041
LCSD 880-4041/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4041

GC Semi VOA

Analysis Batch: 4067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-802-1	PH12	Total/NA	Solid	8015B NM	4071
890-802-2	PH12A	Total/NA	Solid	8015B NM	4071
MB 880-4071/1-A	Method Blank	Total/NA	Solid	8015B NM	4071
LCS 880-4071/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4071
LCSD 880-4071/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4071

Prep Batch: 4071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-802-1	PH12	Total/NA	Solid	8015NM Prep	
890-802-2	PH12A	Total/NA	Solid	8015NM Prep	
MB 880-4071/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4071/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4071/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 4076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-802-1	PH12	Soluble	Solid	DI Leach	
890-802-2	PH12A	Soluble	Solid	DI Leach	
MB 880-4076/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4076/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4076/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 4082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-802-1	PH12	Soluble	Solid	300.0	4076
890-802-2	PH12A	Soluble	Solid	300.0	4076
MB 880-4076/1-A	Method Blank	Soluble	Solid	300.0	4076
LCS 880-4076/2-A	Lab Control Sample	Soluble	Solid	300.0	4076
LCSD 880-4076/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4076

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-802-1
Project/Site: PLU 18 BD 161H

Client Sample ID: PH12 Lab Sample ID: 890-802-1

Date Collected: 06/11/21 08:39 **Matrix: Solid**
Date Received: 06/11/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4041	06/12/21 11:30	KL	XEN MID
Total/NA	Analysis	8021B		1	4044	06/13/21 00:35	KL	XEN MID
Total/NA	Prep	8015NM Prep			4071	06/13/21 10:54	AM	XEN MID
Total/NA	Analysis	8015B NM		1	4067	06/14/21 03:54	AJ	XEN MID
Soluble	Leach	DI Leach			4076	06/14/21 09:53	CH	XEN MID
Soluble	Analysis	300.0		1	4082	06/14/21 12:47	CH	XEN MID

Client Sample ID: PH12A Lab Sample ID: 890-802-2

Date Collected: 06/11/21 08:42 **Matrix: Solid**
Date Received: 06/11/21 11:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4041	06/12/21 11:30	KL	XEN MID
Total/NA	Analysis	8021B		1	4044	06/13/21 00:56	KL	XEN MID
Total/NA	Prep	8015NM Prep			4071	06/13/21 10:54	AM	XEN MID
Total/NA	Analysis	8015B NM		1	4067	06/14/21 04:15	AJ	XEN MID
Soluble	Leach	DI Leach			4076	06/14/21 09:53	CH	XEN MID
Soluble	Analysis	300.0		1	4082	06/14/21 12:53	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Job ID: 890-802-1
Project/Site: PLU 18 BD 161H

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 18 BD 161H

Job ID: 890-802-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-802-1	PH12	Solid	06/11/21 08:39	06/11/21 11:31	- 1
890-802-2	PH12A	Solid	06/11/21 08:42	06/11/21 11:31	- 2

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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6/14/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A St. Bldg 1, Unit 222	Address:	3104 E Greene St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM
Phone:	(432) 704-5178 Email:		travis.casey@wsp.com, kalei.jennings@wsp.com, dan.moir@w

Work Order Comments

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

Project Name:	PLU 18 BD 161H	Turn Around	
Project Number:		Routine	
P.O. Number:		Rush: 24hr	
Sampler's Name:	Travis Casey	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	3.4 / 3.2	Thermometer ID	T-NM-007
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

IN:nAPP2102246632/
nAPP203655261
CC:1665771001/1632501001
AFE:DD.2017.01793.CAP.CMI
API:30-015-44897

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)	Sample Comments
PH12	S	6-11-21	0839	1'	1	✓	✓	✓	
PH12A	S	6-11-21	0842	2'	1	✓	✓	✓	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/11/21 / 11:31	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc. Job Number: 890-802-1

Login Number: 802 **List Source: Eurofins Xenco, Carlsbad**
List Number: 1
Creator: Ordonez, Gabby

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: 890-802-1

Login Number: 802 **List Source: Eurofins Xenco, Midland**
List Number: 2 **List Creation: 06/12/21 04:19 PM**
Creator: Kramer, Jessica

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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 32275
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	7/13/2021