Form C-141
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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2116853715
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☒ Extents of contamination must be fully delineated.

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

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

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 09/01/2021

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

OCD Only

Received by: Robert Hamlet Date: 1/24/2022

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

Signature: Robert Hamlet Date: 1/24/2022

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	NAPP2116853715
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 32.09427 Longitude -103.83588
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU Phantom Banks 25-25-30	Site Type Tank Battery
Date Release Discovered 6/7/2021	API# *(if applicable)*

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

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 2.5	Volume Recovered (bbls) 2.5
☒ Produced Water	Volume Released (bbls) 3.0	Volume Recovered (bbls) 3.0
	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: Internal corrosion caused a hole in the heater treater tube, releasing fluids into impermeable containment. A 48-hour advance liner inspection notice was sent to NMOCD District 2. Liner was inspected and determined not to be operating as designed. A third-party contractor has been retained for remediation activities.

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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2116853715
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A

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

Initial Response

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

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

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

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

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

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 6/17/21

email: adrian.baker@exxonmobil.com Telephone: 432.236.3808

OCD Only

Received by: Ramona Marcus Date: 06/28/2021

Location:	**PLU Phantom Banks 25-25-30**	
Spill Date:	**6/7/2021**	
Area 1		
Approximate Area =	30.88	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	2.50	bbls
Total Produced Water =	3.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**2.50**	**bbls**
Total Produced Water =	**3.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**2.50**	**bbls**
Total Produced Water =	**3.00**	**bbls**

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

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 32645
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	6/28/2021

Incident ID	NAPP2116853715
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.

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State of New Mexico
Oil Conservation Division

Incident ID	NAPP2116853715
District RP	
Facility ID	
Application ID	

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

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 09/01/2021

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2116853715
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

☒ Extents of contamination must be fully delineated.

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

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

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 09/01/2021

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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

September 1, 2021

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

RE: Deferral Request
PLU Phantom Banks 25-25-30
Incident Number NAPP2116853715
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment and soil sampling activities at the PLU Phantom Banks 25-25-30 (Site) in Unit N, Section 25, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of crude oil and produced water within lined containment at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Deferral Request, describing site assessment and delineation activities that have occurred and requesting deferral of final remediation for Incident Number NAPP2116853715 until the Site is reconstructed, and/or the well pad is abandoned.

RELEASE BACKGROUND

On June 7, 2021, internal corrosion on a heater treater tube resulted in the release of approximately 2.5 barrels (bbls) of crude oil and 3.0 bbls of produced water into the lined tank battery containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; all 5.5 bbls of the released crude oil and produced water were recovered from within the lined containment. A 48-hour advance notice of liner inspection was provided via email to New Mexico Oil Conservation Division (NMOCD) District II office. A liner integrity inspection was conducted by XTO personnel following the fluid recovery and upon inspection, the liner was determined to be insufficient. XTO reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on June 17, 2021. The release was assigned Incident Number NAPP2116853715.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code

(NMAC). Depth to groundwater at the Site is greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During February 2021, WSP installed a soil boring (C-4498) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-4498 was drilled to a depth of 109 feet bgs. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The Well Record and Log are included in Attachment 1. The location of the borehole is approximately 0.5 miles northwest of the Site and is depicted on Figure 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 109 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The closest continuously flowing or significant watercourse to the Site is an intermittent streambed, located approximately 275 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- TPH: 100 mg/kg
- Chloride: 600 mg/kg

SITE ASSESSMENT ACTIVITIES

On July 28, 2021, WSP personnel visited the Site to evaluate the release extent and conduct site assessment activities. WSP personnel advanced one core hole (CH01) via core drill near the location of the tear in the liner identified during the liner integrity inspection. Four additional potholes (PH01 through PH04) were advanced via truck-mounted backhoe around the lined containment to confirm the lateral extent of the release. Three soil samples were collected from the core hole (CH01) at depths of 1-foot, 2 feet, and 6 feet bgs. Two soil samples were collected from each pothole (PH01 through PH04) at depths ranging from 1-foot to 6 feet bgs. Soil from the core hole and potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips,

respectively. Field screening results and observations from the core hole and potholes were documented on lithologic/soil sampling logs and are included as Attachment 2. The core hole and potholes were backfilled with the soil removed and XTO repaired the tear in the liner. The delineation soil sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 3.

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

SOIL ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples CH01 and CH01A, collected at 1-foot and 2 feet bgs directly below the tear in the liner, indicated that TPH concentrations exceeded the Closure Criteria. Subsequent sample CH01B, collected at 6 feet bgs, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for the pothole delineation soil samples PH01/PH01A through PH04/PH04A, collected at depths ranging from 1-foot to 6 feet bgs, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Attachment 4.

DEFERRAL REQUEST

XTO is requesting deferral of final remediation due to the presence of active production equipment and surface pipelines within the lined containment. The impacted soil is limited to the area immediately beneath the lined containment and active production equipment, where remediation would require a major facility deconstruction.

The impacted soil remaining in place beneath the liner is delineated vertically by delineation soil sample CH01B and laterally by delineation soil samples PH01/PH01A through PH04/PH04A. A maximum of 1,000 cubic yards of TPH impacted soil remains in place beneath the liner assuming a maximum 6-foot depth based on the delineation soil samples listed above, that were compliant with the Closure Criteria.

WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater is greater than 100 feet bgs, the release was contained laterally by the lined containment, the majority of the released fluids were recovered during initial response activities, and the impacted soil remaining in place is limited to

the area immediately beneath the liner. The liner has been repaired by XTO and will restrict future vertical migration of residual impacts.

Based on the presence of active production equipment within the release area and the complete lateral and vertical delineation of impacted soil remaining in place, XTO requests deferral of final remediation for Incident Number NAPP2116853715 until final reclamation of the well pad or major construction, whichever comes first.

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

Sincerely,

WSP USA Inc.

Kalei Jennings
Associate Consultant

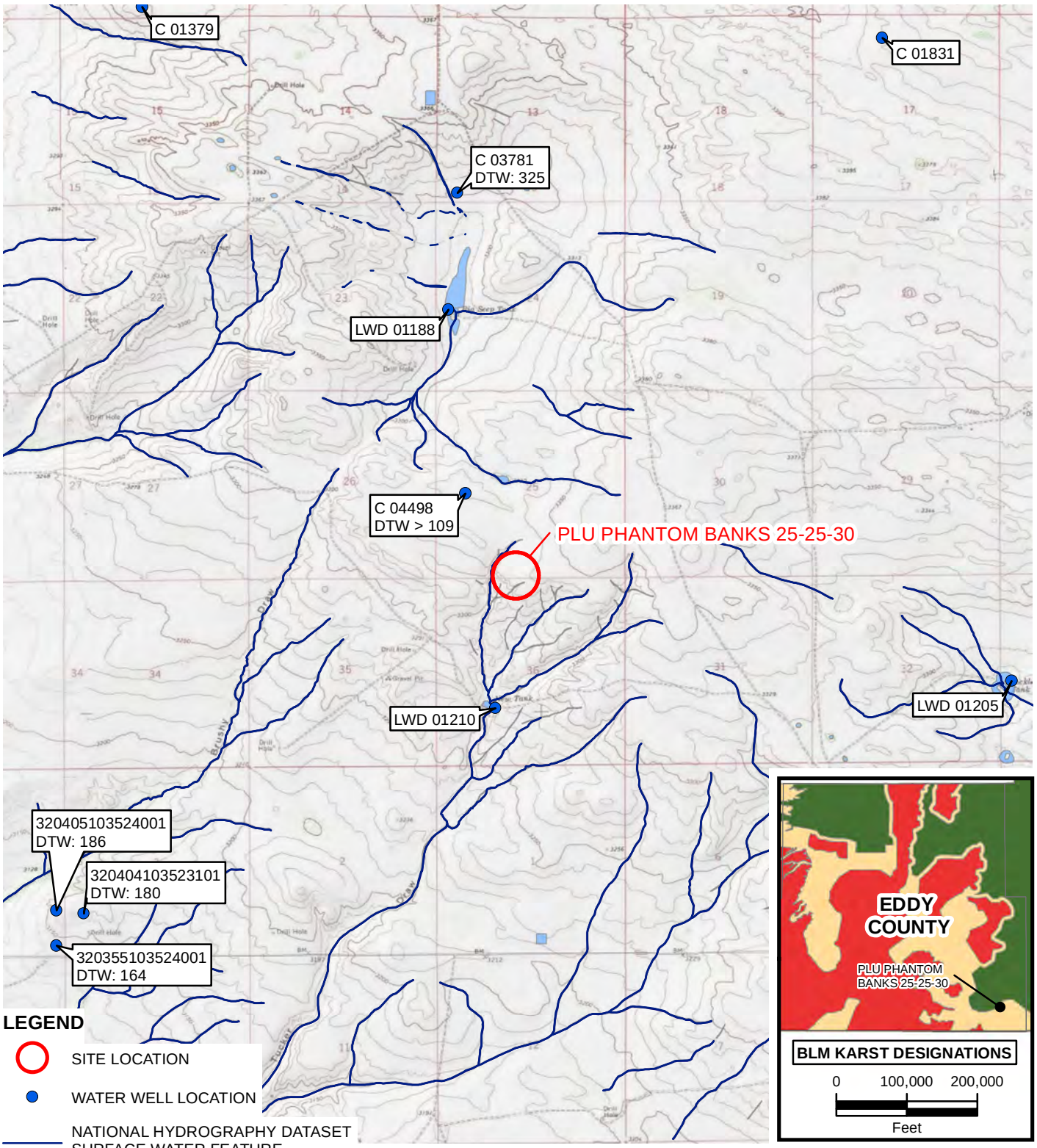
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Adrian Baker, XTO
Bureau of Land Management

Attachments:

Figure 1	Site Location Map
Figure 2	Delineation 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



DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBER NAPP2116853715

FIGURE 1
SITE LOCATION MAP
PLU PHANTOM BANKS 25-25-30
UNIT N SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\31403236.022.0129_PLU PB 25-25-30\31403236.022_FIG01_SL_RECEPTOR_2021.mxd

LEGEND

IMAGE COURTESY OF ESRI

- RELEASE LOCATION
- DELINEATION SOIL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- CONTAINMENT

0 50 100
Feet

N

NOTE: INCIDENT NUMBER NAPP2116853715
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
DELINEATION SOIL SAMPLE LOCATIONS
PLU PHANTOM BANKS 25-25-30
UNIT N SEC 25 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\31403236.022.0129_PLU PB 25-25-30\31403236.022_FIG02_DELINEATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
PLU Phantom Banks 25-25-30
Incident Number NAPP2116853715
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	NE	100	600
Delineation Samples										
CH01	07/28/2021	1	<0.00202	<0.00404	140	<50.0	<50.0	140	**140**	28.8
CH01A	07/28/2021	2	<0.00200	<0.00401	203	<49.9	<49.9	203	**203**	8.68
CH01B	07/28/2021	6	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	7.10
PH01	08/16/2021	1	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	327
PH01A	08/16/2021	6	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	36.3
PH02	08/16/2021	1	<0.00202	0.00550	<49.9	<49.9	<49.9	<49.9	<49.9	278
PH02A	08/16/2021	6	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	<4.96
PH03	08/16/2021	2	0.00204	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	20.1
PH03A	08/16/2021	6	<0.00199	0.00852	<50.0	<50.0	<50.0	<50.0	<50.0	46.7
PH04	08/16/2021	1	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	<4.95
PH04A	08/26/2021	6	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	49.3

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

ATTACHMENT 1: REFERENCED WELL RECORD

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

03/11/2021

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

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4498 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4498Pod1.

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

Sincerely,

Lucas Middleton

Enclosures: as noted above

OSE DII MAR 11 2021 PM4:22

APPLICANT COPY

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DII MAR 11 2021 PM4:22

Copy

APPLICANT

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4498

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

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

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	6'	1.96"	N
	LONGITUDE	-103°	50'	26.19"	W

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

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

NW SW NE Sec. 25 T25S R30E

2. DRILLING & CASING INFORMATION

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

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
02/24/2021	02/24/2021	temporary well material	109	n/a

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

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

DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	109	±6.5	Boring- HSA	--	--	--	--

3. ANNULAR MATERIAL

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

FOR OSE INTERNAL USE

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

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

4. HYDROGEOLOGIC ~~LOG~~ OF WELL

DEPTH (feet bgl) FROM	TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	34	34	Caliche, tan, no odor, no stain, gravel, dry	Y ✓ N	
34	40	6	sand/ cacliche, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
40	56	16	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
56	72	16	sandstone, low consolidation, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
72	79	7	sand, tan, no odor, no stain, m-f grain, well sorted, dry	Y ✓ N	
79	109	30	sandstone, low - medium consolidation, tan, no odor, m-f grained, well sorted, m	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

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

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

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

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

Shane Eldridge

6. SIGNATURE

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

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

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

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

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

PLUGGING RECORD

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

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4498- POD1

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

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

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

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

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

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

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

6) Depth of well confirmed at initiation of plugging as: 109 ft below ground level (bgl), by the following manner: weighted tape

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

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

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

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

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-10' Hydrated Bentonite	Approx. 16 gallons	16 gallons	Augers	
	10'-109' Drill Cuttings	Approx. 171 gallons	171 gallons	Boring	

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

III. SIGNATURE:

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

Jack Atkins

Signature of Well Driller

03/11/2021

Date

Version: September 8, 2009
Page 2 of 2

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

Final Audit Report 2021-03-11

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

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

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

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

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

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

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

OSE DFT MAR 11 2021 PM4:22

Adobe Sign

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
CH01	7/28/2021

Site Name: PLU PB 25-25-30

RP or Incident Number: NAPP2116853715

LTE Job Number: 31403236.022.0129

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: JH	Method: Core Drill

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 2"	Total Depth: 6'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	GW	GRAVEL, moist, tan - brown, well graded, some sand, no stain, no odor.
m	<124	3.3	N	CH01	1'			
m	132	9.6	N	CH01A	2'	2		
d	<124	9.2	N		3'		SW	SAND, dry, reddish orange - brown, well graded, no stain, no odor.
d	<124	3.9	N		4'	4		
d	<124	9.7	N	CH01B	6'	6		

Total Depth: 6 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH01	8/16/2021

Site Name: PLU PB 25-25-30

RP or Incident Number: NAPP2116853715

LTE Job Number: 31403236.022.0129

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: PB	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 3"	Total Depth: 6'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
d	403	9.0	N	PH01	1'	0	SM	SAND, dry, light brown, some silt, poorly graded, medium grain, some caliche gravel, no stain, no odor.
d	<156	8.4	N		2'	2		
d	156	15.2	N		4'	4		
d	<156	14.2	N	PH01A	6'	6		

Total Depth: 6 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH02	8/16/2021

Site Name: PLU PB 25-25-30

RP or Incident Number: NAPP2116853715

LTE Job Number: 31403236.022.0129

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: PB	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 3"	Total Depth: 6'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
d	263	0.0	N	PH02	1'	0	SM	SAND, dry, light brown, some silt, poorly graded, medium grain, some caliche gravel, no stain, no odor.
d	224	0.0	N		2'	2		
d	<156	0.0	N		4'	4		
d	<156	0.0	N	PH02A	6'	6		

Total Depth: 6 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH03	8/16/2021

Site Name: PLU PB 25-25-30

RP or Incident Number: NAPP2116853715

LTE Job Number: 31403236.022.0129

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: PB	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 3"	Total Depth: 6'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
d	<156	0.0	N		1'	0	SM	SAND, dry, light brown, some silt, poorly graded, medium grain, some caliche gravel, no stain, no odor.
d	<156	0.0	N	PH03	2'	2		
d	<156	0.0	N		4'	4		
d	<156	0.0	N	PH03A	6'	6		

Total Depth: 6 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name:	Date:
PH04	8/16/2021

Site Name: PLU PB 25-25-30

RP or Incident Number: NAPP2116853715

LTE Job Number: 31403236.022.0129

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: PB	Method: Hand Auger

Lat/Long:	Field Screening: Chloride, PID	Hole Diameter: 3"	Total Depth: 6'

Comments:

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
d	<156	1.7	N	PH04	1'	0	SM	SAND, dry, light brown, some silt, poorly graded, medium grain, some caliche gravel, no stain, no odor.
					2'	2		
					4'	4		
				PH04	6'	6		

Total Depth: 6 feet bgs

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	PLU Phantom Banks 25-25-30 Eddy County, New Mexico	NAPP2116853715

Photo No.	Date
1	June 11, 2021

View of breached liner during liner integrity inspection.

Photo No.	Date
2	July 28, 2021

View of core drill delineation at CH01 location inside containment.

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: 890-1021-1
Laboratory Sample Delivery Group: 31403236.022.0129
Client Project/Site: PLU PB 25-25-30

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

Attn: Dan Moir

Authorized for release by:
8/2/2021 1:36:39 PM

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

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Laboratory Job ID: 890-1021-1
SDG: 31403236.022.0129

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1021-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Job ID: 890-1021-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1021-1

Receipt
The samples were received on 7/28/2021 4:52 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 2.2°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: CH01 (890-1021-1), CH01A (890-1021-2), CH01B (890-1021-3) and CH01C (890-1021-4). 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 PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Client Sample ID: CH01

Date Collected: 07/28/21 10:25
Date Received: 07/28/21 16:52
Sample Depth: - 1.0

Lab Sample ID: 890-1021-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		07/30/21 09:00	07/30/21 22:26	1
Toluene	<0.00202	U	0.00202		mg/Kg		07/30/21 09:00	07/30/21 22:26	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		07/30/21 09:00	07/30/21 22:26	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		07/30/21 09:00	07/30/21 22:26	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		07/30/21 09:00	07/30/21 22:26	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		07/30/21 09:00	07/30/21 22:26	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		07/30/21 09:00	07/30/21 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*07/30/21 09:00*	*07/30/21 22:26*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*07/30/21 09:00*	*07/30/21 22:26*	*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		07/30/21 14:36	07/31/21 13:03	1
Diesel Range Organics (Over C10-C28)	**140**		50.0		mg/Kg		07/30/21 14:36	07/31/21 13:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 13:03	1
Total TPH	**140**		50.0		mg/Kg		07/30/21 14:36	07/31/21 13:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*07/30/21 14:36*	*07/31/21 13:03*	*1*
o-Terphenyl	*101*		*70 - 130*	*07/30/21 14:36*	*07/31/21 13:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**28.8**		5.00		mg/Kg			07/31/21 14:53	1

Client Sample ID: CH01A

Date Collected: 07/28/21 10:42
Date Received: 07/28/21 16:52
Sample Depth: - 2.0

Lab Sample ID: 890-1021-2

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 22:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 22:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 22:47	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/30/21 09:00	07/30/21 22:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 22:47	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/30/21 09:00	07/30/21 22:47	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		07/30/21 09:00	07/30/21 22:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*07/30/21 09:00*	*07/30/21 22:47*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/30/21 09:00*	*07/30/21 22:47*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Client Sample ID: CH01A

Lab Sample ID: 890-1021-2
Matrix: Solid
Date Collected: 07/28/21 10:42
Date Received: 07/28/21 16:52
Sample Depth: - 2.0

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		07/30/21 14:36	07/31/21 14:07	1
Diesel Range Organics (Over C10-C28)	**203**		49.9		mg/Kg		07/30/21 14:36	07/31/21 14:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		07/30/21 14:36	07/31/21 14:07	1
Total TPH	**203**		49.9		mg/Kg		07/30/21 14:36	07/31/21 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*07/30/21 14:36*	*07/31/21 14:07*	*1*
o-Terphenyl	*117*		*70 - 130*	*07/30/21 14:36*	*07/31/21 14:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.68**		5.00		mg/Kg			07/31/21 14:59	1

Client Sample ID: CH01B

Lab Sample ID: 890-1021-3
Matrix: Solid
Date Collected: 07/28/21 12:21
Date Received: 07/28/21 16:52
Sample Depth: - 6.0

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 23:07	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 23:07	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 23:07	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		07/30/21 09:00	07/30/21 23:07	1
o-Xylene	**0.00344**		0.00200		mg/Kg		07/30/21 09:00	07/30/21 23:07	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		07/30/21 09:00	07/30/21 23:07	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		07/30/21 09:00	07/30/21 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*07/30/21 09:00*	*07/30/21 23:07*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*07/30/21 09:00*	*07/30/21 23:07*	*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		07/30/21 14:36	07/31/21 14:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 14:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 14:28	1
Total TPH	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 14:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*07/30/21 14:36*	*07/31/21 14:28*	*1*
o-Terphenyl	*119*		*70 - 130*	*07/30/21 14:36*	*07/31/21 14:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.10**		4.98		mg/Kg			07/31/21 15:15	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Client Sample ID: CH01C

Date Collected: 07/28/21 13:44
Date Received: 07/28/21 16:52
Sample Depth: - 10.0

Lab Sample ID: 890-1021-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		07/30/21 09:00	07/30/21 23:27	1
Toluene	<0.00198	U	0.00198		mg/Kg		07/30/21 09:00	07/30/21 23:27	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		07/30/21 09:00	07/30/21 23:27	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		07/30/21 09:00	07/30/21 23:27	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		07/30/21 09:00	07/30/21 23:27	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		07/30/21 09:00	07/30/21 23:27	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		07/30/21 09:00	07/30/21 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*07/30/21 09:00*	*07/30/21 23:27*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*07/30/21 09:00*	*07/30/21 23:27*	*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		07/30/21 14:36	07/31/21 14:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 14:49	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 14:49	1
Total TPH	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*07/30/21 14:36*	*07/31/21 14:49*	*1*
o-Terphenyl	*111*		*70 - 130*	*07/30/21 14:36*	*07/31/21 14:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**60.0**		24.8		mg/Kg			07/31/21 15:21	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1021-1	CH01	111	92
890-1021-2	CH01A	108	91
890-1021-3	CH01B	111	92
890-1021-4	CH01C	113	95
LCS 880-5823/1-A	Lab Control Sample	102	90
LCSD 880-5823/2-A	Lab Control Sample Dup	101	90
MB 880-5823/5-A	Method Blank	114	91

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)
890-1021-1	CH01	95	101
890-1021-1 MS	CH01	87	82
890-1021-1 MSD	CH01	105	98
890-1021-2	CH01A	112	117
890-1021-3	CH01B	112	119
890-1021-4	CH01C	103	111
LCS 880-5902/2-A	Lab Control Sample	93	94
LCSD 880-5902/3-A	Lab Control Sample Dup	100	99
MB 880-5902/1-A	Method Blank	94	104

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5823/5-A
Matrix: Solid
Analysis Batch: 5877

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5823

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 15:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 15:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 15:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/30/21 09:00	07/30/21 15:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/30/21 09:00	07/30/21 15:01	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/30/21 09:00	07/30/21 15:01	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		07/30/21 09:00	07/30/21 15:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*07/30/21 09:00*	*07/30/21 15:01*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*07/30/21 09:00*	*07/30/21 15:01*	*1*

Lab Sample ID: LCS 880-5823/1-A
Matrix: Solid
Analysis Batch: 5877

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5823

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08684		mg/Kg		87	70 - 130		
Toluene			0.100	0.09647		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.1033		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene			0.200	0.2084		mg/Kg		104	70 - 130		
o-Xylene			0.100	0.09989		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: LCSD 880-5823/2-A
Matrix: Solid
Analysis Batch: 5877

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5823

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08312		mg/Kg		83	70 - 130	4	35
Toluene			0.100	0.09595		mg/Kg		96	70 - 130	1	35
Ethylbenzene			0.100	0.1029		mg/Kg		103	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2087		mg/Kg		104	70 - 130	0	35
o-Xylene			0.100	0.09957		mg/Kg		100	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

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

Lab Sample ID: MB 880-5902/1-A
Matrix: Solid
Analysis Batch: 5917

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5902

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		07/30/21 14:36	07/31/21 12:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 12:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 12:00	1
Total TPH	<50.0	U	50.0		mg/Kg		07/30/21 14:36	07/31/21 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*07/30/21 14:36*	*07/31/21 12:00*	*1*
o-Terphenyl	*104*		*70 - 130*	*07/30/21 14:36*	*07/31/21 12:00*	*1*

Lab Sample ID: LCS 880-5902/2-A
Matrix: Solid
Analysis Batch: 5917

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5902

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	802.8		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	892.5		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*94*		*70 - 130*

Lab Sample ID: LCSD 880-5902/3-A
Matrix: Solid
Analysis Batch: 5917

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5902

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	868.9		mg/Kg		87	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	973.1		mg/Kg		97	70 - 130	9	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Lab Sample ID: 890-1021-1 MS
Matrix: Solid
Analysis Batch: 5917

Client Sample ID: CH01
Prep Type: Total/NA
Prep Batch: 5902

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	1161		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)	140		996	1015		mg/Kg		88	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

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

Lab Sample ID: 890-1021-1 MS
Matrix: Solid
Analysis Batch: 5917

Client Sample ID: CH01
Prep Type: Total/NA
Prep Batch: 5902

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Lab Sample ID: 890-1021-1 MSD
Matrix: Solid
Analysis Batch: 5917

Client Sample ID: CH01
Prep Type: Total/NA
Prep Batch: 5902

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	1077		mg/Kg		108	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	140		996	1211		mg/Kg		108	70 - 130	18	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5893/1-A
Matrix: Solid
Analysis Batch: 5906

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			07/30/21 19:49	1

Lab Sample ID: LCS 880-5893/2-A
Matrix: Solid
Analysis Batch: 5906

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	261.9		mg/Kg		105	90 - 110		

Lab Sample ID: LCSD 880-5893/3-A
Matrix: Solid
Analysis Batch: 5906

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	261.3		mg/Kg		105	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1021-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

GC VOA

Prep Batch: 5823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1021-1	CH01	Total/NA	Solid	5035	
890-1021-2	CH01A	Total/NA	Solid	5035	
890-1021-3	CH01B	Total/NA	Solid	5035	
890-1021-4	CH01C	Total/NA	Solid	5035	
MB 880-5823/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5823/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5823/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 5877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1021-1	CH01	Total/NA	Solid	8021B	5823
890-1021-2	CH01A	Total/NA	Solid	8021B	5823
890-1021-3	CH01B	Total/NA	Solid	8021B	5823
890-1021-4	CH01C	Total/NA	Solid	8021B	5823
MB 880-5823/5-A	Method Blank	Total/NA	Solid	8021B	5823
LCS 880-5823/1-A	Lab Control Sample	Total/NA	Solid	8021B	5823
LCSD 880-5823/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5823

GC Semi VOA

Prep Batch: 5902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1021-1	CH01	Total/NA	Solid	8015NM Prep	
890-1021-2	CH01A	Total/NA	Solid	8015NM Prep	
890-1021-3	CH01B	Total/NA	Solid	8015NM Prep	
890-1021-4	CH01C	Total/NA	Solid	8015NM Prep	
MB 880-5902/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5902/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1021-1 MS	CH01	Total/NA	Solid	8015NM Prep	
890-1021-1 MSD	CH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 5917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1021-1	CH01	Total/NA	Solid	8015B NM	5902
890-1021-2	CH01A	Total/NA	Solid	8015B NM	5902
890-1021-3	CH01B	Total/NA	Solid	8015B NM	5902
890-1021-4	CH01C	Total/NA	Solid	8015B NM	5902
MB 880-5902/1-A	Method Blank	Total/NA	Solid	8015B NM	5902
LCS 880-5902/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5902
LCSD 880-5902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5902
890-1021-1 MS	CH01	Total/NA	Solid	8015B NM	5902
890-1021-1 MSD	CH01	Total/NA	Solid	8015B NM	5902

HPLC/IC

Leach Batch: 5893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1021-1	CH01	Soluble	Solid	DI Leach	
890-1021-2	CH01A	Soluble	Solid	DI Leach	
890-1021-3	CH01B	Soluble	Solid	DI Leach	
890-1021-4	CH01C	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

HPLC/IC (Continued)

Leach Batch: 5893 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-5893/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5893/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5893/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 5906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1021-1	CH01	Soluble	Solid	300.0	5893
890-1021-2	CH01A	Soluble	Solid	300.0	5893
890-1021-3	CH01B	Soluble	Solid	300.0	5893
890-1021-4	CH01C	Soluble	Solid	300.0	5893
MB 880-5893/1-A	Method Blank	Soluble	Solid	300.0	5893
LCS 880-5893/2-A	Lab Control Sample	Soluble	Solid	300.0	5893
LCSD 880-5893/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5893

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1021-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Client Sample ID: CH01 Lab Sample ID: 890-1021-1

Date Collected: 07/28/21 10:25 **Matrix: Solid**
Date Received: 07/28/21 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5823	07/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5877	07/30/21 22:26	KL	XEN MID
Total/NA	Prep	8015NM Prep			5902	07/30/21 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5917	07/31/21 13:03	AJ	XEN MID
Soluble	Leach	DI Leach			5893	07/30/21 14:08	CH	XEN MID
Soluble	Analysis	300.0		1	5906	07/31/21 14:53	CH	XEN MID

Client Sample ID: CH01A Lab Sample ID: 890-1021-2

Date Collected: 07/28/21 10:42 **Matrix: Solid**
Date Received: 07/28/21 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5823	07/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5877	07/30/21 22:47	KL	XEN MID
Total/NA	Prep	8015NM Prep			5902	07/30/21 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5917	07/31/21 14:07	AJ	XEN MID
Soluble	Leach	DI Leach			5893	07/30/21 14:08	CH	XEN MID
Soluble	Analysis	300.0		1	5906	07/31/21 14:59	CH	XEN MID

Client Sample ID: CH01B Lab Sample ID: 890-1021-3

Date Collected: 07/28/21 12:21 **Matrix: Solid**
Date Received: 07/28/21 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5823	07/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5877	07/30/21 23:07	KL	XEN MID
Total/NA	Prep	8015NM Prep			5902	07/30/21 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5917	07/31/21 14:28	AJ	XEN MID
Soluble	Leach	DI Leach			5893	07/30/21 14:08	CH	XEN MID
Soluble	Analysis	300.0		1	5906	07/31/21 15:15	CH	XEN MID

Client Sample ID: CH01C Lab Sample ID: 890-1021-4

Date Collected: 07/28/21 13:44 **Matrix: Solid**
Date Received: 07/28/21 16:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5823	07/30/21 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5877	07/30/21 23:27	KL	XEN MID
Total/NA	Prep	8015NM Prep			5902	07/30/21 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5917	07/31/21 14:49	AJ	XEN MID
Soluble	Leach	DI Leach			5893	07/30/21 14:08	CH	XEN MID
Soluble	Analysis	300.0		5	5906	07/31/21 15:21	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1021-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

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 PB 25-25-30

Job ID: 890-1021-1
SDG: 31403236.022.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1021-1	CH01	Solid	07/28/21 10:25	07/28/21 16:52	- 1.0
890-1021-2	CH01A	Solid	07/28/21 10:42	07/28/21 16:52	- 2.0
890-1021-3	CH01B	Solid	07/28/21 12:21	07/28/21 16:52	- 6.0
890-1021-4	CH01C	Solid	07/28/21 13:44	07/28/21 16:52	- 10.0

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
www.xenco.com Page 1 of 6

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	522 W. Mermod St.
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(432) 236-3849	Email:	Jeremy.Hill@wsp.com, Dan.Moir@wsp.com

Work Order Comments

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

Project Name:	PLU PB 25-25-30	Turn Around	
Project Number:	31403036.002.0189	Routine ☑	
P.O. Number:	Sp.11 Dt 6/7/21	Rush:	
Sampler's Name:	Jeremy Hill	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.4 / 2.2	Thermometer ID	TWM-007
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

890-1021 Chain of Custody

Work Order Notes

CC
1140331001
Zn
NAPP2116853715
API
30-015-40756

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Sample Comments
CH01	S	7/28/21	1025	1.0	1	X	X	X	Discrete
CH01A			1042	2.0					
CH01B			1221	6.0					
CH01C			1344	10.0					

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	2	7.28.21 1650	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

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s)	COC No: 890-325 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1021-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 8/3/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: PLU PB 25-25-30	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code								
CH01 (890-1021-1)	7/28/21	10 25 Mountain		Solid			X	X	X	1	
CH01A (890-1021-2)	7/28/21	10 42 Mountain		Solid			X	X	X	1	
CH01B (890-1021-3)	7/28/21	12 21 Mountain		Solid			X	X	X	1	
CH01C (890-1021-4)	7/28/21	13 44 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: Cle Arp 7.29.21	Date/Time:	Company	Received by: J Kramer
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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1021-1
SDG Number: 31403236.022.0129

Login Number: 1021
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1021-1
SDG Number: 31403236.022.0129

Login Number: 1021
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 07/30/21 10:49 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1116-1
Laboratory Sample Delivery Group: 31403236.022.0129
Client Project/Site: PLU PB 25-25-30

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

Attn: Dan Moir

JKramer

Authorized for release by:
8/23/2021 4:33:12 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 PB 25-25-30

Laboratory Job ID: 890-1116-1
SDG: 31403236.022.0129

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1116-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1116-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Job ID: 890-1116-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1116-1

Receipt
The samples were received on 8/17/2021 12:33 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 2.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-6686 and analytical batch 880-6831 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: PH03A (890-1116-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH02 (890-1116-3) and PH02A (890-1116-4). 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 PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Client Sample ID: PH01

Lab Sample ID: 890-1116-1
Matrix: Solid
Date Collected: 08/16/21 12:05
Date Received: 08/17/21 12:33
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		08/18/21 08:45	08/21/21 17:52	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/18/21 08:45	08/21/21 17:52	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/18/21 08:45	08/21/21 17:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		08/18/21 08:45	08/21/21 17:52	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/18/21 08:45	08/21/21 17:52	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		08/18/21 08:45	08/21/21 17:52	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		08/18/21 08:45	08/21/21 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*08/18/21 08:45*	*08/21/21 17:52*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/18/21 08:45*	*08/21/21 17:52*	*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		08/19/21 13:30	08/20/21 05:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/20/21 05:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/20/21 05:52	1
Total TPH	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/20/21 05:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*08/19/21 13:30*	*08/20/21 05:52*	*1*
o-Terphenyl	*106*		*70 - 130*	*08/19/21 13:30*	*08/20/21 05:52*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**327**		4.97		mg/Kg			08/22/21 17:39	1

Client Sample ID: PH01A

Lab Sample ID: 890-1116-2
Matrix: Solid
Date Collected: 08/16/21 12:18
Date Received: 08/17/21 12:33
Sample Depth: 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/18/21 08:45	08/21/21 18:13	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/18/21 08:45	08/21/21 18:13	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/18/21 08:45	08/21/21 18:13	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		08/18/21 08:45	08/21/21 18:13	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/18/21 08:45	08/21/21 18:13	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		08/18/21 08:45	08/21/21 18:13	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		08/18/21 08:45	08/21/21 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*08/18/21 08:45*	*08/21/21 18:13*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*08/18/21 08:45*	*08/21/21 18:13*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Client Sample ID: PH01A

Lab Sample ID: 890-1116-2
Matrix: Solid
Date Collected: 08/16/21 12:18
Date Received: 08/17/21 12:33
Sample Depth: 6

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		08/19/21 13:30	08/20/21 06:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 06:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 06:13	1
Total TPH	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 06:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*08/19/21 13:30*	*08/20/21 06:13*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/19/21 13:30*	*08/20/21 06:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.3**		4.99		mg/Kg			08/22/21 17:44	1

Client Sample ID: PH02

Lab Sample ID: 890-1116-3
Matrix: Solid
Date Collected: 08/16/21 13:31
Date Received: 08/17/21 12:33
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/18/21 08:45	08/21/21 18:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/18/21 08:45	08/21/21 18:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/18/21 08:45	08/21/21 18:34	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		08/18/21 08:45	08/21/21 18:34	1
o-Xylene	**0.00550**		0.00202		mg/Kg		08/18/21 08:45	08/21/21 18:34	1
Xylenes, Total	**0.00550**		0.00403		mg/Kg		08/18/21 08:45	08/21/21 18:34	1
Total BTEX	**0.00550**		0.00403		mg/Kg		08/18/21 08:45	08/21/21 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*143*	*S1+*	*70 - 130*	*08/18/21 08:45*	*08/21/21 18:34*	*1*
1,4-Difluorobenzene (Surr)	*125*		*70 - 130*	*08/18/21 08:45*	*08/21/21 18:34*	*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		08/19/21 13:30	08/20/21 06:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 06:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 06:33	1
Total TPH	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 06:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*08/19/21 13:30*	*08/20/21 06:33*	*1*
o-Terphenyl	*108*		*70 - 130*	*08/19/21 13:30*	*08/20/21 06:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**278**		4.96		mg/Kg			08/22/21 17:50	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Client Sample ID: PH02A

Lab Sample ID: 890-1116-4
Matrix: Solid
Date Collected: 08/16/21 13:39
Date Received: 08/17/21 12:33
Sample Depth: 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/18/21 08:45	08/21/21 18:55	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/18/21 08:45	08/21/21 18:55	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/18/21 08:45	08/21/21 18:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/18/21 08:45	08/21/21 18:55	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/18/21 08:45	08/21/21 18:55	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/18/21 08:45	08/21/21 18:55	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		08/18/21 08:45	08/21/21 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*08/18/21 08:45*	*08/21/21 18:55*	*1*
1,4-Difluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*08/18/21 08:45*	*08/21/21 18:55*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		08/19/21 13:30	08/20/21 06:55	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		08/19/21 13:30	08/20/21 06:55	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/19/21 13:30	08/20/21 06:55	1
Total TPH	<49.8	U	49.8		mg/Kg		08/19/21 13:30	08/20/21 06:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*08/19/21 13:30*	*08/20/21 06:55*	*1*
o-Terphenyl	*106*		*70 - 130*	*08/19/21 13:30*	*08/20/21 06:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96		mg/Kg			08/22/21 17:55	1

Client Sample ID: PH03

Lab Sample ID: 890-1116-5
Matrix: Solid
Date Collected: 08/16/21 13:57
Date Received: 08/17/21 12:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.00204**		0.00200		mg/Kg		08/18/21 08:45	08/21/21 19:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/18/21 08:45	08/21/21 19:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/18/21 08:45	08/21/21 19:16	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/18/21 08:45	08/21/21 19:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/18/21 08:45	08/21/21 19:16	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/18/21 08:45	08/21/21 19:16	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		08/18/21 08:45	08/21/21 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*08/18/21 08:45*	*08/21/21 19:16*	*1*
1,4-Difluorobenzene (Surr)	*129*		*70 - 130*	*08/18/21 08:45*	*08/21/21 19:16*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Client Sample ID: PH03

Lab Sample ID: 890-1116-5
Matrix: Solid
Date Collected: 08/16/21 13:57
Date Received: 08/17/21 12:33
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	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 07:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 07:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 07:16	1
Total TPH	<49.9	U	49.9		mg/Kg		08/19/21 13:30	08/20/21 07:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*08/19/21 13:30*	*08/20/21 07:16*	*1*
o-Terphenyl	*101*		*70 - 130*	*08/19/21 13:30*	*08/20/21 07:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.1**	**F1**	5.01		mg/Kg			08/22/21 18:00	1

Client Sample ID: PH03A

Lab Sample ID: 890-1116-6
Matrix: Solid
Date Collected: 08/16/21 14:02
Date Received: 08/17/21 12:33
Sample Depth: 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		08/18/21 08:45	08/21/21 19:37	1
Toluene	**0.00852**		0.00199		mg/Kg		08/18/21 08:45	08/21/21 19:37	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/18/21 08:45	08/21/21 19:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/18/21 08:45	08/21/21 19:37	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/18/21 08:45	08/21/21 19:37	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/18/21 08:45	08/21/21 19:37	1
Total BTEX	**0.00852**		0.00398		mg/Kg		08/18/21 08:45	08/21/21 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*209*	*S1+*	*70 - 130*	*08/18/21 08:45*	*08/21/21 19:37*	*1*
1,4-Difluorobenzene (Surr)	*196*	*S1+*	*70 - 130*	*08/18/21 08:45*	*08/21/21 19:37*	*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		08/19/21 13:30	08/20/21 07:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/20/21 07:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/20/21 07:37	1
Total TPH	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/20/21 07:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*08/19/21 13:30*	*08/20/21 07:37*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/19/21 13:30*	*08/20/21 07:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**46.7**		4.98		mg/Kg			08/23/21 12:32	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Client Sample ID: PH04

Date Collected: 08/16/21 15:29
Date Received: 08/17/21 12:33
Sample Depth: 1

Lab Sample ID: 890-1116-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/18/21 08:45	08/21/21 19:58	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/18/21 08:45	08/21/21 19:58	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/18/21 08:45	08/21/21 19:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/18/21 08:45	08/21/21 19:58	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/18/21 08:45	08/21/21 19:58	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/18/21 08:45	08/21/21 19:58	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		08/18/21 08:45	08/21/21 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*08/18/21 08:45*	*08/21/21 19:58*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*08/18/21 08:45*	*08/21/21 19:58*	*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		08/19/21 13:30	08/20/21 07:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		08/19/21 13:30	08/20/21 07:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		08/19/21 13:30	08/20/21 07:58	1
Total TPH	<49.8	U	49.8		mg/Kg		08/19/21 13:30	08/20/21 07:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*08/19/21 13:30*	*08/20/21 07:58*	*1*
o-Terphenyl	*106*		*70 - 130*	*08/19/21 13:30*	*08/20/21 07:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			08/22/21 18:21	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1116-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-5188-A-30-A MS	Matrix Spike	103	102										
880-5188-A-30-B MSD	Matrix Spike Duplicate	105	99										
890-1116-1	PH01	88	103										
890-1116-2	PH01A	104	101										
890-1116-3	PH02	143 S1+	125										
890-1116-4	PH02A	115	69 S1-										
890-1116-5	PH03	113	129										
890-1116-6	PH03A	209 S1+	196 S1+										
890-1116-7	PH04	90	87										
LCS 880-6686/1-A	Lab Control Sample	104	103										
LCSD 880-6686/2-A	Lab Control Sample Dup	102	90										
MB 880-6686/5-A	Method Blank	102	84										
MB 880-6784/5-A	Method Blank	100	72										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-5187-A-21-F MS	Matrix Spike	85	90										
880-5187-A-21-G MSD	Matrix Spike Duplicate	83	89										
890-1116-1	PH01	92	106										
890-1116-2	PH01A	90	102										
890-1116-3	PH02	93	108										
890-1116-4	PH02A	94	106										
890-1116-5	PH03	89	101										
890-1116-6	PH03A	90	102										
890-1116-7	PH04	92	106										
LCS 880-6811/2-A	Lab Control Sample	88	96										
LCSD 880-6811/3-A	Lab Control Sample Dup	94	104										
MB 880-6811/1-A	Method Blank	92	107										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-6686/5-A
Matrix: Solid
Analysis Batch: 6831

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6686

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/18/21 08:45	08/21/21 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/18/21 08:45	08/21/21 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/18/21 08:45	08/21/21 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/18/21 08:45	08/21/21 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/18/21 08:45	08/21/21 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/18/21 08:45	08/21/21 11:56	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		08/18/21 08:45	08/21/21 11:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*08/18/21 08:45*	*08/21/21 11:56*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*08/18/21 08:45*	*08/21/21 11:56*	*1*

Lab Sample ID: LCS 880-6686/1-A
Matrix: Solid
Analysis Batch: 6831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6686

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09114		mg/Kg		91	70 - 130		
Toluene			0.100	0.08142		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.08902		mg/Kg		89	70 - 130		
m-Xylene & p-Xylene			0.200	0.1525		mg/Kg		76	70 - 130		
o-Xylene			0.100	0.07851		mg/Kg		79	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-6686/2-A
Matrix: Solid
Analysis Batch: 6831

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6686

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08159		mg/Kg		82	70 - 130	11	35
Toluene			0.100	0.08229		mg/Kg		82	70 - 130	1	35
Ethylbenzene			0.100	0.08924		mg/Kg		89	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1552		mg/Kg		78	70 - 130	2	35
o-Xylene			0.100	0.07889		mg/Kg		79	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 880-5188-A-30-A MS
Matrix: Solid
Analysis Batch: 6831

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 6686

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	0.00357	F1	0.100	0.02594	F1	mg/Kg		22	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

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

Lab Sample ID: 880-5188-A-30-A MS
Matrix: Solid
Analysis Batch: 6831

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 6686

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00202	U F1 F2	0.100	0.01960	F1	mg/Kg		20	70 - 130
Ethylbenzene	<0.00202	U F1	0.100	0.02067	F1	mg/Kg		21	70 - 130
m-Xylene & p-Xylene	<0.00404	U F1	0.200	0.03543	F1	mg/Kg		18	70 - 130
o-Xylene	<0.00202	U F1	0.100	0.01927	F1	mg/Kg		19	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-5188-A-30-B MSD
Matrix: Solid
Analysis Batch: 6831

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 6686

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00357	F1	0.101	0.03305	F1	mg/Kg		29	70 - 130	24	35
Toluene	<0.00202	U F1 F2	0.101	0.03536	F1 F2	mg/Kg		35	70 - 130	57	35
Ethylbenzene	<0.00202	U F1	0.101	0.02733	F1	mg/Kg		27	70 - 130	28	35
m-Xylene & p-Xylene	<0.00404	U F1	0.202	0.04968	F1	mg/Kg		25	70 - 130	33	35
o-Xylene	<0.00202	U F1	0.101	0.02470	F1	mg/Kg		25	70 - 130	25	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: MB 880-6784/5-A
Matrix: Solid
Analysis Batch: 6831

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6784

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/20/21 09:30	08/21/21 00:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/20/21 09:30	08/21/21 00:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/20/21 09:30	08/21/21 00:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/20/21 09:30	08/21/21 00:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/20/21 09:30	08/21/21 00:53	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/20/21 09:30	08/21/21 00:53	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/20/21 09:30	08/21/21 00:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*08/20/21 09:30*	*08/21/21 00:53*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*08/20/21 09:30*	*08/21/21 00:53*	*1*

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

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

Lab Sample ID: MB 880-6811/1-A
Matrix: Solid
Analysis Batch: 6797

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6811

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		08/19/21 13:30	08/19/21 23:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/19/21 23:57	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/19/21 23:57	1
Total TPH	<50.0	U	50.0		mg/Kg		08/19/21 13:30	08/19/21 23:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*08/19/21 13:30*	*08/19/21 23:57*	*1*
o-Terphenyl	*107*		*70 - 130*	*08/19/21 13:30*	*08/19/21 23:57*	*1*

Lab Sample ID: LCS 880-6811/2-A
Matrix: Solid
Analysis Batch: 6797

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6811

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	788.2		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	926.2		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: LCSD 880-6811/3-A
Matrix: Solid
Analysis Batch: 6797

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6811

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	861.2		mg/Kg		86	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	1004		mg/Kg		100	70 - 130	8	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*104*		*70 - 130*

Lab Sample ID: 880-5187-A-21-F MS
Matrix: Solid
Analysis Batch: 6797

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 6811

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	754.3		mg/Kg		76	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	995	779.4		mg/Kg		76	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

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

Lab Sample ID: 880-5187-A-21-F MS
Matrix: Solid
Analysis Batch: 6797

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 6811

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 880-5187-A-21-G MSD
Matrix: Solid
Analysis Batch: 6797

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 6811

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	722.3		mg/Kg		72	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	788.5		mg/Kg		77	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	89		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-6786/1-A
Matrix: Solid
Analysis Batch: 6861

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			08/22/21 16:30	1

Lab Sample ID: LCS 880-6786/2-A
Matrix: Solid
Analysis Batch: 6861

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 880-6786/3-A
Matrix: Solid
Analysis Batch: 6861

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

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

Lab Sample ID: 890-1116-5 MS
Matrix: Solid
Analysis Batch: 6861

Client Sample ID: PH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	20.1	F1	251	317.3	F1	mg/Kg		119	90 - 110		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1116-5 MSD
Matrix: Solid
Analysis Batch: 6861

Client Sample ID: PH03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	20.1	F1	251	315.6	F1	mg/Kg		118	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1116-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

GC VOA

Prep Batch: 6686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1116-1	PH01	Total/NA	Solid	5035	
890-1116-2	PH01A	Total/NA	Solid	5035	
890-1116-3	PH02	Total/NA	Solid	5035	
890-1116-4	PH02A	Total/NA	Solid	5035	
890-1116-5	PH03	Total/NA	Solid	5035	
890-1116-6	PH03A	Total/NA	Solid	5035	
890-1116-7	PH04	Total/NA	Solid	5035	
MB 880-6686/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6686/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6686/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5188-A-30-A MS	Matrix Spike	Total/NA	Solid	5035	
880-5188-A-30-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 6784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-6784/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 6831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1116-1	PH01	Total/NA	Solid	8021B	6686
890-1116-2	PH01A	Total/NA	Solid	8021B	6686
890-1116-3	PH02	Total/NA	Solid	8021B	6686
890-1116-4	PH02A	Total/NA	Solid	8021B	6686
890-1116-5	PH03	Total/NA	Solid	8021B	6686
890-1116-6	PH03A	Total/NA	Solid	8021B	6686
890-1116-7	PH04	Total/NA	Solid	8021B	6686
MB 880-6686/5-A	Method Blank	Total/NA	Solid	8021B	6686
MB 880-6784/5-A	Method Blank	Total/NA	Solid	8021B	6784
LCS 880-6686/1-A	Lab Control Sample	Total/NA	Solid	8021B	6686
LCSD 880-6686/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6686
880-5188-A-30-A MS	Matrix Spike	Total/NA	Solid	8021B	6686
880-5188-A-30-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	6686

GC Semi VOA

Analysis Batch: 6797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1116-1	PH01	Total/NA	Solid	8015B NM	6811
890-1116-2	PH01A	Total/NA	Solid	8015B NM	6811
890-1116-3	PH02	Total/NA	Solid	8015B NM	6811
890-1116-4	PH02A	Total/NA	Solid	8015B NM	6811
890-1116-5	PH03	Total/NA	Solid	8015B NM	6811
890-1116-6	PH03A	Total/NA	Solid	8015B NM	6811
890-1116-7	PH04	Total/NA	Solid	8015B NM	6811
MB 880-6811/1-A	Method Blank	Total/NA	Solid	8015B NM	6811
LCS 880-6811/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6811
LCSD 880-6811/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6811
880-5187-A-21-F MS	Matrix Spike	Total/NA	Solid	8015B NM	6811
880-5187-A-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6811

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1116-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

GC Semi VOA

Prep Batch: 6811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1116-1	PH01	Total/NA	Solid	8015NM Prep	
890-1116-2	PH01A	Total/NA	Solid	8015NM Prep	
890-1116-3	PH02	Total/NA	Solid	8015NM Prep	
890-1116-4	PH02A	Total/NA	Solid	8015NM Prep	
890-1116-5	PH03	Total/NA	Solid	8015NM Prep	
890-1116-6	PH03A	Total/NA	Solid	8015NM Prep	
890-1116-7	PH04	Total/NA	Solid	8015NM Prep	
MB 880-6811/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6811/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6811/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-5187-A-21-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-5187-A-21-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 6786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1116-1	PH01	Soluble	Solid	DI Leach	
890-1116-2	PH01A	Soluble	Solid	DI Leach	
890-1116-3	PH02	Soluble	Solid	DI Leach	
890-1116-4	PH02A	Soluble	Solid	DI Leach	
890-1116-5	PH03	Soluble	Solid	DI Leach	
890-1116-6	PH03A	Soluble	Solid	DI Leach	
890-1116-7	PH04	Soluble	Solid	DI Leach	
MB 880-6786/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6786/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6786/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1116-5 MS	PH03	Soluble	Solid	DI Leach	
890-1116-5 MSD	PH03	Soluble	Solid	DI Leach	

Analysis Batch: 6861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1116-1	PH01	Soluble	Solid	300.0	6786
890-1116-2	PH01A	Soluble	Solid	300.0	6786
890-1116-3	PH02	Soluble	Solid	300.0	6786
890-1116-4	PH02A	Soluble	Solid	300.0	6786
890-1116-5	PH03	Soluble	Solid	300.0	6786
890-1116-6	PH03A	Soluble	Solid	300.0	6786
890-1116-7	PH04	Soluble	Solid	300.0	6786
MB 880-6786/1-A	Method Blank	Soluble	Solid	300.0	6786
LCS 880-6786/2-A	Lab Control Sample	Soluble	Solid	300.0	6786
LCSD 880-6786/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6786
890-1116-5 MS	PH03	Soluble	Solid	300.0	6786
890-1116-5 MSD	PH03	Soluble	Solid	300.0	6786

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Client Sample ID: PH01
Date Collected: 08/16/21 12:05
Date Received: 08/17/21 12:33

Lab Sample ID: 890-1116-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6686	08/18/21 08:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6831	08/21/21 17:52	KL	XEN MID
Total/NA	Prep	8015NM Prep			6811	08/19/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6797	08/20/21 05:52	AJ	XEN MID
Soluble	Leach	DI Leach			6786	08/19/21 11:12	CH	XEN MID
Soluble	Analysis	300.0		1	6861	08/22/21 17:39	CH	XEN MID

Client Sample ID: PH01A
Date Collected: 08/16/21 12:18
Date Received: 08/17/21 12:33

Lab Sample ID: 890-1116-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6686	08/18/21 08:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6831	08/21/21 18:13	KL	XEN MID
Total/NA	Prep	8015NM Prep			6811	08/19/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6797	08/20/21 06:13	AJ	XEN MID
Soluble	Leach	DI Leach			6786	08/19/21 11:12	CH	XEN MID
Soluble	Analysis	300.0		1	6861	08/22/21 17:44	CH	XEN MID

Client Sample ID: PH02
Date Collected: 08/16/21 13:31
Date Received: 08/17/21 12:33

Lab Sample ID: 890-1116-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6686	08/18/21 08:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6831	08/21/21 18:34	KL	XEN MID
Total/NA	Prep	8015NM Prep			6811	08/19/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6797	08/20/21 06:33	AJ	XEN MID
Soluble	Leach	DI Leach			6786	08/19/21 11:12	CH	XEN MID
Soluble	Analysis	300.0		1	6861	08/22/21 17:50	CH	XEN MID

Client Sample ID: PH02A
Date Collected: 08/16/21 13:39
Date Received: 08/17/21 12:33

Lab Sample ID: 890-1116-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6686	08/18/21 08:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6831	08/21/21 18:55	KL	XEN MID
Total/NA	Prep	8015NM Prep			6811	08/19/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6797	08/20/21 06:55	AJ	XEN MID
Soluble	Leach	DI Leach			6786	08/19/21 11:12	CH	XEN MID
Soluble	Analysis	300.0		1	6861	08/22/21 17:55	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1116-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Client Sample ID: PH03 Lab Sample ID: 890-1116-5

Date Collected: 08/16/21 13:57 **Matrix: Solid**
Date Received: 08/17/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6686	08/18/21 08:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6831	08/21/21 19:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			6811	08/19/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6797	08/20/21 07:16	AJ	XEN MID
Soluble	Leach	DI Leach			6786	08/19/21 11:12	CH	XEN MID
Soluble	Analysis	300.0		1	6861	08/22/21 18:00	CH	XEN MID

Client Sample ID: PH03A Lab Sample ID: 890-1116-6

Date Collected: 08/16/21 14:02 **Matrix: Solid**
Date Received: 08/17/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6686	08/18/21 08:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6831	08/21/21 19:37	KL	XEN MID
Total/NA	Prep	8015NM Prep			6811	08/19/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6797	08/20/21 07:37	AJ	XEN MID
Soluble	Leach	DI Leach			6786	08/19/21 11:12	CH	XEN MID
Soluble	Analysis	300.0		1	6861	08/23/21 12:32	CH	XEN MID

Client Sample ID: PH04 Lab Sample ID: 890-1116-7

Date Collected: 08/16/21 15:29 **Matrix: Solid**
Date Received: 08/17/21 12:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6686	08/18/21 08:45	KL	XEN MID
Total/NA	Analysis	8021B		1	6831	08/21/21 19:58	KL	XEN MID
Total/NA	Prep	8015NM Prep			6811	08/19/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6797	08/20/21 07:58	AJ	XEN MID
Soluble	Leach	DI Leach			6786	08/19/21 11:12	CH	XEN MID
Soluble	Analysis	300.0		1	6861	08/22/21 18:21	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1116-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

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 PB 25-25-30

Job ID: 890-1116-1
SDG: 31403236.022.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1116-1	PH01	Solid	08/16/21 12:05	08/17/21 12:33	1
890-1116-2	PH01A	Solid	08/16/21 12:18	08/17/21 12:33	6
890-1116-3	PH02	Solid	08/16/21 13:31	08/17/21 12:33	1
890-1116-4	PH02A	Solid	08/16/21 13:39	08/17/21 12:33	6
890-1116-5	PH03	Solid	08/16/21 13:57	08/17/21 12:33	2
890-1116-6	PH03A	Solid	08/16/21 14:02	08/17/21 12:33	6
890-1116-7	PH04	Solid	08/16/21 15:29	08/17/21 12:33	1

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503	Email:	payton.benner@wsp.com, kalei.jennings@wsp.com

Work Order Comments

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

Project Name:	PLU PB 25-25-30	Turn Around	
Project Number:	31403236.022.0129	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	2.8/2.6	Thermometer ID	TNM-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

890-1116 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
PH01	S	8/16/2021	12:05	1'	1	X	X	X	Discrete
PH01A	S	8/16/2021	12:18	6'	1	X	X	X	Discrete
PH02	S	8/16/2021	13:31	1'	1	X	X	X	Discrete
PH02A	S	8/16/2021	13:39	6'	1	X	X	X	Discrete
PH03	S	8/16/2021	13:57	2'	1	X	X	X	Discrete
PH03A	S	8/16/2021	14:02	6'	1	X	X	X	Discrete
PH04	S	8/16/2021	15:29	1'	1	X	X	X	Discrete

Work Order Notes

CC: 1140221001
API: 30-015-40756
Incident Number
NAPP2116853715

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

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 PBenner	Anna Byers	8/17/21 @ 1100	2 Anna Byers	Alex Ortiz	8.17.21 1232
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

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s).	COC No: 890-355 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-1116-1
Address: 1211 W Florida Ave	Due Date Requested: 8/23/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: PLU PB 25-25-30	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
PH01 (890-1116-1)	8/16/21	12 05 Mountain		Solid			X	X	X	1	
PH01A (890-1116-2)	8/16/21	12 18 Mountain		Solid			X	X	X	1	
PH02 (890-1116-3)	8/16/21	13 31 Mountain		Solid			X	X	X	1	
PH02A (890-1116-4)	8/16/21	13 39 Mountain		Solid			X	X	X	1	
PH03 (890-1116-5)	8/16/21	13 57 Mountain		Solid			X	X	X	1	
PH03A (890-1116-6)	8/16/21	14 02 Mountain		Solid			X	X	X	1	
PH04 (890-1116-7)	8/16/21	15 29 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: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment.

Relinquished by: Ace Cuy 8.17.21	Date/Time:	Company	Received by:	Date/Time: 8-18-21 1:30pm	Company	
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company	
Relinquished by	Date/Time	Company	Received by:	Date/Time	Company	

Custody Seals Intact. ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 1.2 ℃ 2 1/26

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1116-1
SDG Number: 31403236.022.0129

Login Number: 1116
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1116-1
SDG Number: 31403236.022.0129

Login Number: 1116
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 08/18/21 11:54 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1184-1
Laboratory Sample Delivery Group: 31403236.022.0129
Client Project/Site: PLU PB 25-25-30

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/31/2021 2:05:09 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 PB 25-25-30

Laboratory Job ID: 890-1184-1
SDG: 31403236.022.0129

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1184-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

Job ID: 890-1184-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1184-1

Receipt
The sample was received on 8/27/2021 9:30 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C

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

GC Semi VOA
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 PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

Client Sample ID: PH04A

Date Collected: 08/26/21 09:47
Date Received: 08/27/21 09:30
Sample Depth: 6

Lab Sample ID: 890-1184-1

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		08/30/21 08:36	08/30/21 14:58	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/30/21 08:36	08/30/21 14:58	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/30/21 08:36	08/30/21 14:58	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/30/21 08:36	08/30/21 14:58	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/30/21 08:36	08/30/21 14:58	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/30/21 08:36	08/30/21 14:58	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		08/30/21 08:36	08/30/21 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*08/30/21 08:36*	*08/30/21 14:58*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/30/21 08:36*	*08/30/21 14:58*	*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	<49.9	U	49.9		mg/Kg		08/30/21 09:17	08/30/21 12:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/30/21 09:17	08/30/21 12:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/30/21 09:17	08/30/21 12:43	1
Total TPH	<49.9	U	49.9		mg/Kg		08/30/21 09:17	08/30/21 12:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/30/21 09:17*	*08/30/21 12:43*	*1*
o-Terphenyl	*98*		*70 - 130*	*08/30/21 09:17*	*08/30/21 12:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**49.3**		4.95		mg/Kg			08/30/21 18:39	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1184-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-5542-A-1-B MS	Matrix Spike	120	107
880-5542-A-1-C MSD	Matrix Spike Duplicate	120	102
890-1184-1	PH04A	123	103
LCS 880-7245/1-A	Lab Control Sample	112	108
LCS 880-7246/1-A	Lab Control Sample	118	97
LCSD 880-7245/2-A	Lab Control Sample Dup	111	104
LCSD 880-7246/2-A	Lab Control Sample Dup	112	105
MB 880-7245/5-A	Method Blank	107	102

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		
890-1176-A-1-B MSD	Matrix Spike Duplicate		

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)
890-1183-A-1-C MS	Matrix Spike	90	89
890-1183-A-1-D MSD	Matrix Spike Duplicate	90	90
890-1184-1	PH04A	91	98
LCS 880-7251/2-A	Lab Control Sample	90	92
LCSD 880-7251/3-A	Lab Control Sample Dup	90	93
MB 880-7251/1-A	Method Blank	89	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-7245/5-A
Matrix: Solid
Analysis Batch: 7253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 7245

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/30/21 08:36	08/30/21 13:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/30/21 08:36	08/30/21 13:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/30/21 08:36	08/30/21 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/30/21 08:36	08/30/21 13:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/30/21 08:36	08/30/21 13:35	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/30/21 08:36	08/30/21 13:35	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		08/30/21 08:36	08/30/21 13:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*08/30/21 08:36*	*08/30/21 13:35*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*08/30/21 08:36*	*08/30/21 13:35*	*1*

Lab Sample ID: LCS 880-7245/1-A
Matrix: Solid
Analysis Batch: 7253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 7245

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08992		mg/Kg		90	70 - 130		
Toluene			0.100	0.08682		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.08595		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1790		mg/Kg		90	70 - 130		
o-Xylene			0.100	0.09037		mg/Kg		90	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: LCSD 880-7245/2-A
Matrix: Solid
Analysis Batch: 7253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 7245

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08521		mg/Kg		85	70 - 130	5	35
Toluene			0.100	0.08112		mg/Kg		81	70 - 130	7	35
Ethylbenzene			0.100	0.08223		mg/Kg		82	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1712		mg/Kg		86	70 - 130	4	35
o-Xylene			0.100	0.08604		mg/Kg		86	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-1176-A-1-B MSD
Matrix: Solid
Analysis Batch: 7253

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 7245

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.07816		mg/Kg					

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

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

Lab Sample ID: 890-1176-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7253 — **Prep Batch: 7245**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	<0.00200	U	0.0994	0.07323		mg/Kg					
Ethylbenzene	<0.00200	U	0.0994	0.06943		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1438		mg/Kg					
o-Xylene	<0.00200	U	0.0994	0.07362		mg/Kg					

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

Lab Sample ID: LCS 880-7246/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7253 — **Prep Batch: 7246**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07741		mg/Kg		77	70 - 130		
Toluene			0.100	0.07910		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.08002		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene			0.200	0.1669		mg/Kg		83	70 - 130		
o-Xylene			0.100	0.08510		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-7246/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7253 — **Prep Batch: 7246**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07536		mg/Kg		75	70 - 130	3	35
Toluene			0.100	0.07399		mg/Kg		74	70 - 130	7	35
Ethylbenzene			0.100	0.07524		mg/Kg		75	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1567		mg/Kg		78	70 - 130	6	35
o-Xylene			0.100	0.07936		mg/Kg		79	70 - 130	7	35

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

Lab Sample ID: 880-5542-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7253 — **Prep Batch: 7246**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.101	0.07386		mg/Kg		73	70 - 130		
Toluene	<0.00199	U	0.101	0.07309		mg/Kg		72	70 - 130		
Ethylbenzene	<0.00199	U	0.101	0.07653		mg/Kg		76	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1605		mg/Kg		79	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

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

Lab Sample ID: 880-5542-A-1-B MS
Matrix: Solid
Analysis Batch: 7253

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 7246

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	<0.00199	U	0.101	0.08161		mg/Kg		81	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*

Lab Sample ID: 880-5542-A-1-C MSD
Matrix: Solid
Analysis Batch: 7253

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 7246

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07143		mg/Kg		71	70 - 130	3	35
Toluene	<0.00199	U	0.100	0.07166		mg/Kg		72	70 - 130	2	35
Ethylbenzene	<0.00199	U	0.100	0.07366		mg/Kg		74	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1526		mg/Kg		76	70 - 130	5	35
o-Xylene	<0.00199	U	0.100	0.07848		mg/Kg		78	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

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

Lab Sample ID: MB 880-7251/1-A
Matrix: Solid
Analysis Batch: 7247

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 7251

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		08/30/21 09:17	08/30/21 10:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/30/21 09:17	08/30/21 10:36	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/30/21 09:17	08/30/21 10:36	1
Total TPH	<50.0	U	50.0		mg/Kg		08/30/21 09:17	08/30/21 10:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*08/30/21 09:17*	*08/30/21 10:36*	*1*
o-Terphenyl	*98*		*70 - 130*	*08/30/21 09:17*	*08/30/21 10:36*	*1*

Lab Sample ID: LCS 880-7251/2-A
Matrix: Solid
Analysis Batch: 7247

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 7251

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	828.4		mg/Kg		83	70 - 130
Diesel Range Organics (Over C10-C28)	1000	905.0		mg/Kg		91	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1184-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

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

Lab Sample ID: LCS 880-7251/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 7247 **Prep Batch: 7251**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: LCSD 880-7251/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 7247 **Prep Batch: 7251**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	821.2		mg/Kg		82	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	896.8		mg/Kg		90	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 890-1183-A-1-C MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 7247 **Prep Batch: 7251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	856.4		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	995	858.2		mg/Kg		86	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 890-1183-A-1-D MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 7247 **Prep Batch: 7251**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	876.6		mg/Kg		88	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	867.3		mg/Kg		87	70 - 130	1	20

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

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-7259/1-A
Matrix: Solid
Analysis Batch: 7265

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/30/21 16:21	1

Lab Sample ID: LCS 880-7259/2-A
Matrix: Solid
Analysis Batch: 7265

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	270.1		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-7259/3-A
Matrix: Solid
Analysis Batch: 7265

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	269.0		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 880-5527-A-1-C MS
Matrix: Solid
Analysis Batch: 7265

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	335		248	581.9		mg/Kg		100	90 - 110		

Lab Sample ID: 880-5527-A-1-D MSD
Matrix: Solid
Analysis Batch: 7265

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	335		248	580.2		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1184-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

GC VOA

Prep Batch: 7245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1184-1	PH04A	Total/NA	Solid	5035	
MB 880-7245/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7245/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7245/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1176-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 7246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-7246/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7246/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-5542-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-5542-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 7253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1184-1	PH04A	Total/NA	Solid	8021B	7245
MB 880-7245/5-A	Method Blank	Total/NA	Solid	8021B	7245
LCS 880-7245/1-A	Lab Control Sample	Total/NA	Solid	8021B	7245
LCS 880-7246/1-A	Lab Control Sample	Total/NA	Solid	8021B	7246
LCSD 880-7245/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7245
LCSD 880-7246/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7246
880-5542-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	7246
880-5542-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7246
890-1176-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7245

GC Semi VOA

Analysis Batch: 7247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1184-1	PH04A	Total/NA	Solid	8015B NM	7251
MB 880-7251/1-A	Method Blank	Total/NA	Solid	8015B NM	7251
LCS 880-7251/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7251
LCSD 880-7251/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7251
890-1183-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	7251
890-1183-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7251

Prep Batch: 7251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1184-1	PH04A	Total/NA	Solid	8015NM Prep	
MB 880-7251/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7251/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7251/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1183-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1183-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 7259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1184-1	PH04A	Soluble	Solid	DI Leach	
MB 880-7259/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7259/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

HPLC/IC (Continued)

Leach Batch: 7259 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-7259/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-5527-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-5527-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 7265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1184-1	PH04A	Soluble	Solid	300.0	7259
MB 880-7259/1-A	Method Blank	Soluble	Solid	300.0	7259
LCS 880-7259/2-A	Lab Control Sample	Soluble	Solid	300.0	7259
LCSD 880-7259/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7259
880-5527-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	7259
880-5527-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	7259

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

Client Sample ID: PH04A

Date Collected: 08/26/21 09:47
Date Received: 08/27/21 09:30

Lab Sample ID: 890-1184-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7245	08/30/21 08:36	KL	XEN MID
Total/NA	Analysis	8021B		1	7253	08/30/21 14:58	KL	XEN MID
Total/NA	Prep	8015NM Prep			7251	08/30/21 09:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7247	08/30/21 12:43	AJ	XEN MID
Soluble	Leach	DI Leach			7259	08/30/21 09:55	CH	XEN MID
Soluble	Analysis	300.0		1	7265	08/30/21 18:39	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: 890-1184-1
Project/Site: PLU PB 25-25-30 SDG: 31403236.022.0129

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

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 PB 25-25-30

Job ID: 890-1184-1
SDG: 31403236.022.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1184-1	PH04A	Solid	08/26/21 09:47	08/27/21 09:30	6

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Kyle Littrell
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	817-683-2503 Email:	kalei.jennings@wsp.com, payton.benner@wsp.com	

Work Order Comments

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

Project Name:	PLU PB 25-25-30	Turn Around	
Project Number:	31403236.022.0129	Routine ☒	
P.O. Number:		Rush: 24 Hr	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	2.8 / 1.8	Thermometer ID	TM-007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:	1	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
PH04A	S	8/26/2021	9:47	6'	1	X	X	X	Discrete

ANALYSIS REQUEST

890-1184 Chain of Custody

Work Order Notes

CC:1140221001
API: 30-015-40756
NAPP2116853715

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

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

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	pbenner		8/27/21 0855	2	Clue Culp	8.27.21 930
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: 890-373 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-1184-1
Address: 1211 W Florida Ave	Due Date Requested: 8/30/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Save D21 Fed #1	Project #: 88000207			
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)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX - LL	Total Number of containers	Special Instructions/Note
Preservation Code:											
PH04A (890-1184-1)	8/26/21	09 47 Mountain		Solid			X	X	X	1	

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:

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
1	Clue Cut 8.27.21				8-30-21 9:00	
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		2.2 | 2.7

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1184-1
SDG Number: 31403236.022.0129

Login Number: 1184
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1184-1
SDG Number: 31403236.022.0129

Login Number: 1184
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 08/30/21 09:21 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2/ 2.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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

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

CONDITIONS

Action 46377

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 46377
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests to complete final remediation of soil sample location "CH01" during any future major deconstruction/alteration and/or abandonment, whichever occurs first. The area has been delineated and documented in the report. At this time, OCD approves the request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue. This is a Federal site and will require like approval from BLM.	1/24/2022