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	NAPP2111644292
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.14622 Longitude -103.87809
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Row 4 Booster Pump	Site Type Pump Station
Date Release Discovered 04/12/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
H	9	25S	30E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 16.79	Volume Recovered (bbls) 0.0
	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 A PIT snapped off at the connection, releasing fluids onto permeable soil. A third-party contractor has been retained for remediation activities.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2111644292
District RP	
Facility ID	
Application ID	

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

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

Initial Response

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

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

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

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

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

Printed Name: Adrian Baker
Title: SSHE Coordinator
Signature: Adrian Baker
Date: 4/26/21
email: adrian.baker@exxonmobil.com
Telephone: 432-221-7331

OCD Only

Received by:
Date:

Location:	Row 4 Booster Pump Station	
Spill Date:	4/12/2021	
Area 1		
Approximate Area =	7540.00	sq. ft.
Average Saturation (or depth) of spill =	1.00	inches
Average Porosity Factor =	0.15	
VOLUME OF LEAK		
Total Produced Water =	16.79	bbls
TOTAL VOLUME OF LEAK		
Total Produced Water =	**16.79**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**0.00**	**bbls**

Incident ID	NAPP2111644292
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2111644292
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 Bates Date: 01/24/2022

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2111644292
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Adrian Baker Title: SSHE Coordinator

Signature: Adrian Baker Date: 01/24/2022

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

OCD Only

Received by: Chad Hensley Date: 02/10/2022

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

Closure Approved by: Chad Hensley Date: 02/10/2022

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

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

January 24, 2022

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

RE: Closure Request
ROW 4 Booster Pump
Incident Number nAPP2111644292
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the ROW 4 Booster Pump (Site) in Unit H, Section 9, Township 25 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of produced water at the Site. Based on the excavation activities and laboratory analytical results, XTO is submitting this Closure Request, describing remediation that has occurred and requesting no further action (NFA) for Incident Number NAPP2111644292. Please note that this Closure Request report is a resubmittal of the September 7, 2021 report, with a correction to the laboratory analytical results summarized on the attached Table 1.

RELEASE BACKGROUND

On April 12, 2021, a PIT snapped off at the connection, resulting in the release of approximately 16.79 barrels (bbls) of produced water onto the surrounding right-of-way. No fluids were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on April 26, 2021. The release was assigned Incident Number NAPP2111644292.

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 estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Society (USGS) well 320850103533801, located approximately 0.9 miles west of the Site. The groundwater well has a reported depth to groundwater of 310 feet bgs and a total depth of 385 feet bgs. Ground

surface elevation at the groundwater well location is 3,231 feet above mean sea level (amsl), which is approximately 33 feet lower in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater.

The closest continuously flowing or significant watercourse to the Site is an intermittent stream, located approximately 1,117 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 (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

A reclamation standard of 600 mg/kg chloride and 100 mg/kg TPH was applied to the top 4 feet of the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On May 13, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected five preliminary assessment soil samples (SS01 through SS05) within the release extent from a depth of approximately 0.5 feet bgs to assess the lateral extent of the impacted soil. The preliminary soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Laboratory analytical results for preliminary soil sample SS03 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and the reclamation standard. Laboratory analytical results for preliminary soil samples SS01, SS02, SS04, and SS05 indicated that chloride concentrations exceeded the reclamation standard. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

Between June 23, 2021 and June 30, 2021, WSP personnel returned to the Site to oversee delineation and excavation activities as indicated by visual observations, field screening activities, and laboratory analytical results for the preliminary soil samples.

Five potholes (PH01 through PH05) were advanced via hydro-vacuum to a depth of 2 feet bgs within the release extent to assess the lateral and vertical extent of impacted soil. Delineation soil samples were collected from each pothole at depths of 1-foot and 2 feet bgs. Potholes PH01 through PH05 were advanced at the SS01 through SS05 preliminary soil sample locations, respectively. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach© chloride QuanTab© test strips, respectively. Field screening results and observations for each pothole were logged on lithologic/soil sampling logs, which are included in Attachment 2. The pothole and delineation soil sample locations are presented on Figure 3. The delineation soil samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 3.

Based on laboratory analytical results for the preliminary and delineation soil samples and visible staining in the release area, excavation activities were completed to remove the impacted soil. Excavation activities were performed using track-mounted backhoe and transport vehicle. To direct excavation activities, WSP screened soils for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by

thoroughly mixing. Composite soil samples FS01 through FS32 were collected from the floor of the excavation from depths ranging from 1 foot to 3.5 feet bgs. Composite soil samples SW01 through SW04 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 3.5 feet bgs. Due to the shallow depth of the northern portion of the excavation, floor samples FS01 through FS08 represented the floor and sidewalls of the excavation in this area. The excavation soil samples were collected, handled, and analyzed as described above. The excavation extent and excavation soil sample locations are presented on Figure 4.

The final excavation area measured approximately 6,410 square feet. A total of approximately 560 cubic yards of impacted soil were removed during excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility located in Hobbs, New Mexico. After the completion of confirmation sampling, the excavation was backfilled.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for preliminary soil sample SS03 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and the reclamation standard. Laboratory analytical results for preliminary soil samples SS01, SS02, SS04, and SS05 indicated that chloride concentrations exceeded the reclamation standard.

Laboratory analytical results for pothole delineation samples PH01/PH01A, PH02A, PH03/PH03A, PH04A, and PH05A indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and the reclamation standard. Laboratory analytical results for pothole delineation samples PH02, PH04, and PH05, collected at 1-foot bgs, indicated that chloride concentrations exceeded the reclamation standard.

Laboratory analytical results for excavation floor samples FS01 through FS32 and sidewall samples SW01 through SW04, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and the reclamation standard. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Attachment 4.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the April 12, 2021 release of produced water. Laboratory analytical results for excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and the reclamation standard for the top four feet of pasture areas. Based on the soil sample analytical results, no further remediation was required. XTO backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater is estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. WSP and XTO believe these remedial actions are protective of human health, the environment, and groundwater. As such, XTO respectfully requests NFA for Incident Number NAPP2111644292.

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

Sincerely,

WSP USA Inc.

Kaleb Henry
Assistant Consultant, Geologist

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

cc: Adrian Baker, XTO
Bureau of Land Management

Attachments:

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

FIGURES

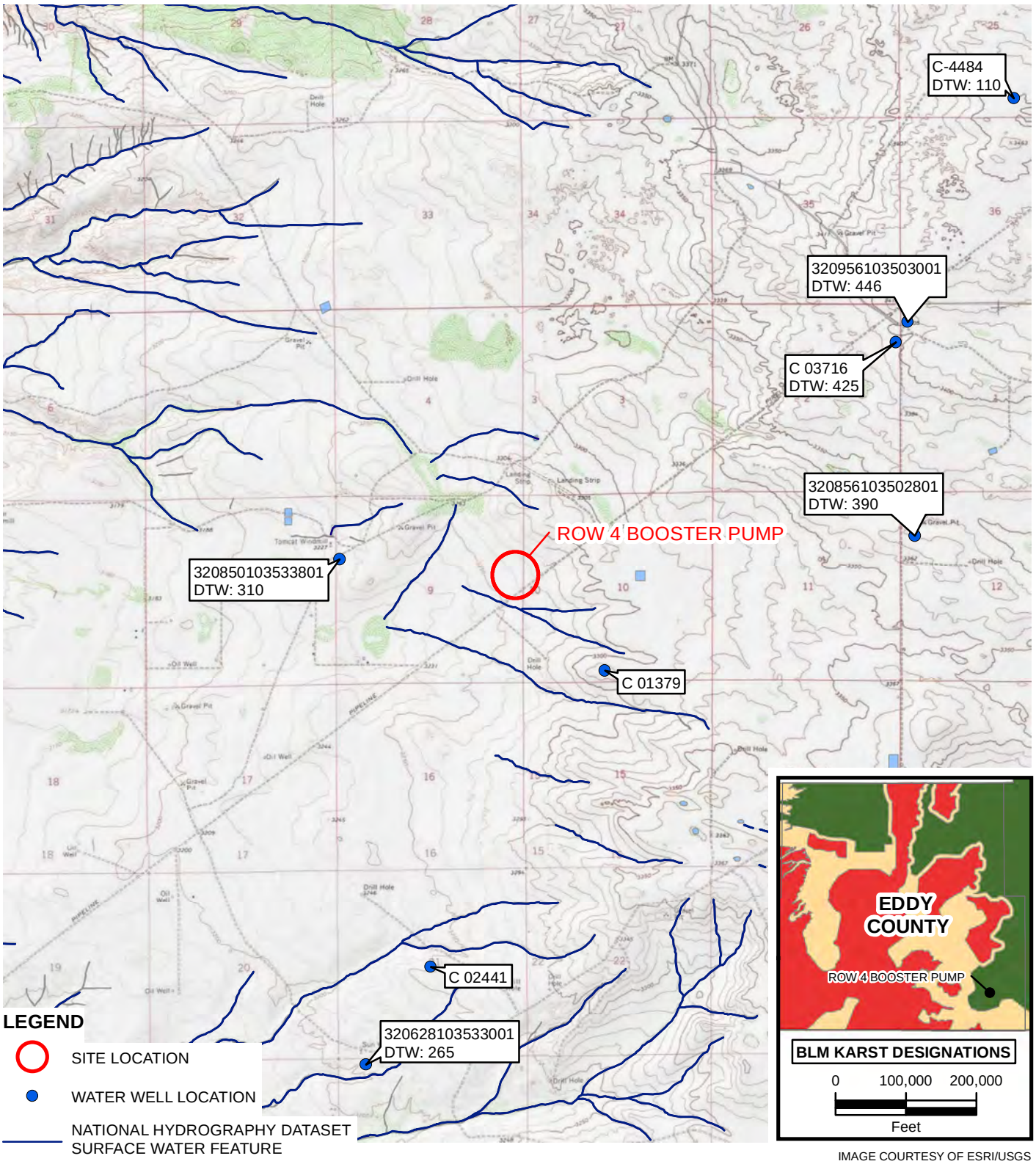


FIGURE 1
SITE LOCATION MAP
ROW 4 BOOSTER PUMP
UNIT H SEC 9 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC

P:\XTO Energy\GIS\MXD\31403236.005.0129_ROW 4 BOOSTER PUMP\31403236.005.0129_FIG01_SL_RECEPTOR_2021.mxd

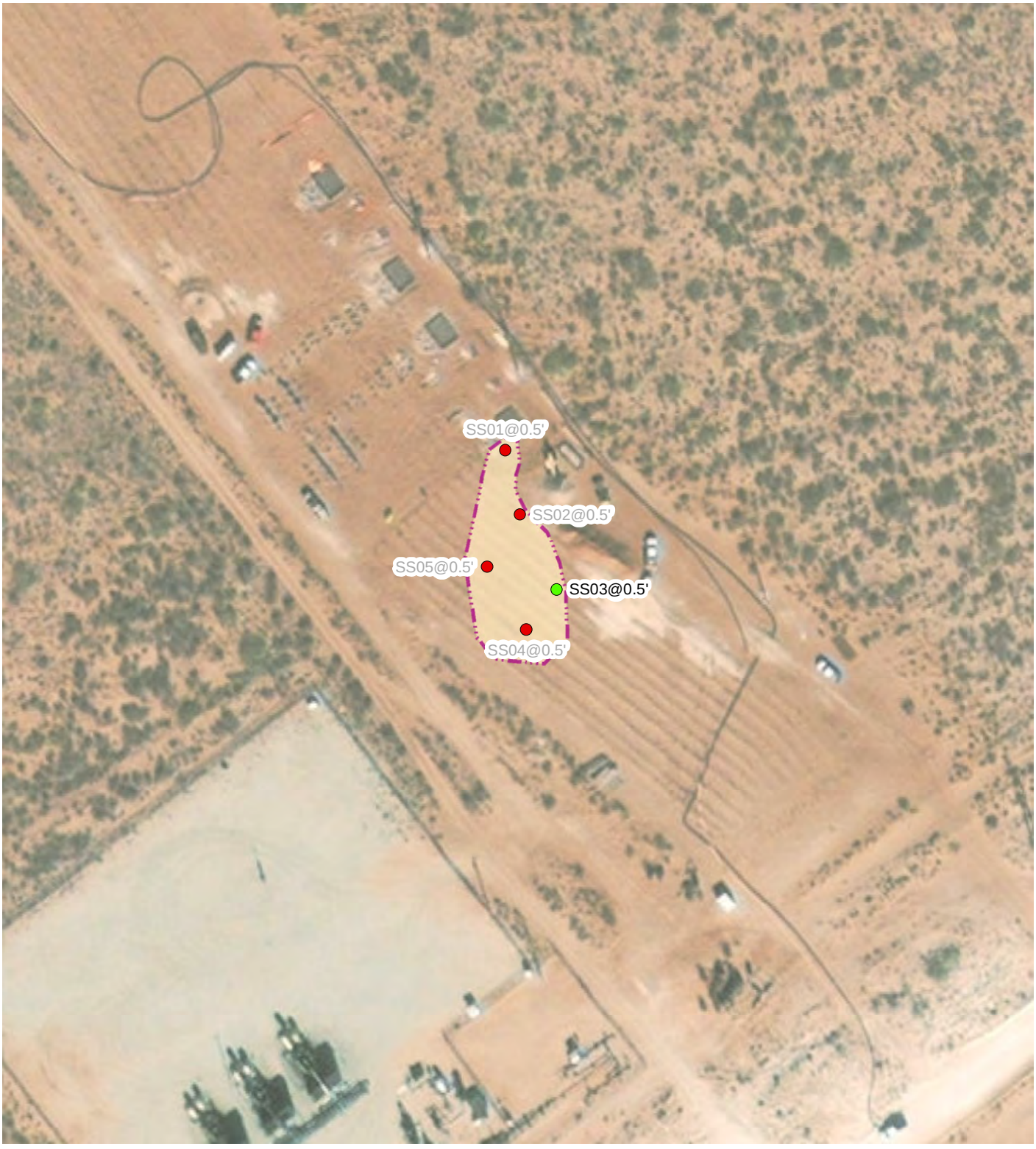


IMAGE COURTESY OF ESRI

LEGEND

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

0 100 200
Feet

N

NOTE: INCIDENT NUMBER NAPP2111644292
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
ROW 4 BOOSTER PUMP
UNIT H SEC 9 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\31403236.005.0129_ROW 4 BOOSTER PUMP\31403236.005.0129_FIG02_PRELIMINARY_2021.mxd

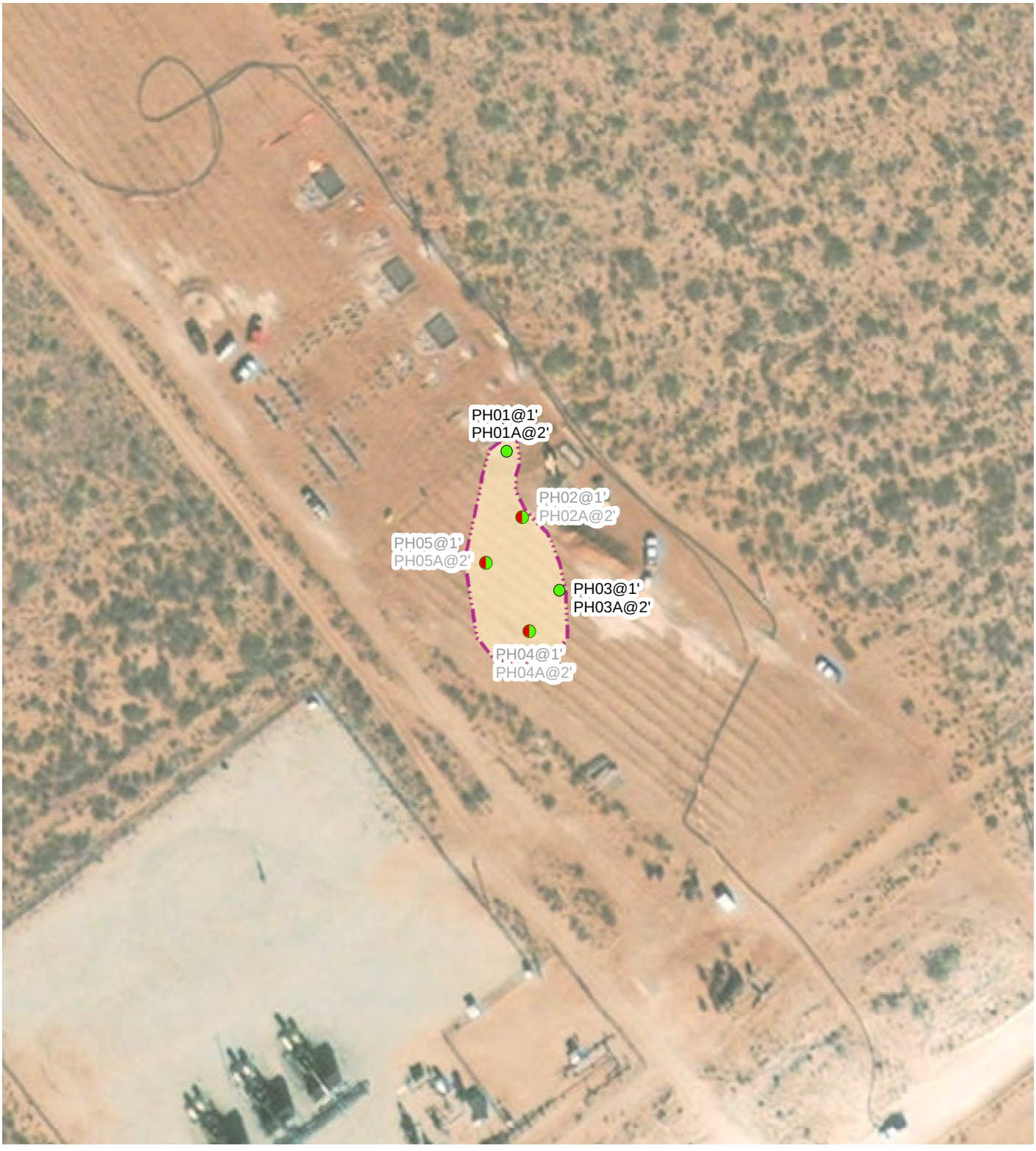


IMAGE COURTESY OF ESRI

LEGEND

DELINEATION SOIL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA

DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

RELEASE EXTENT

0 100 200

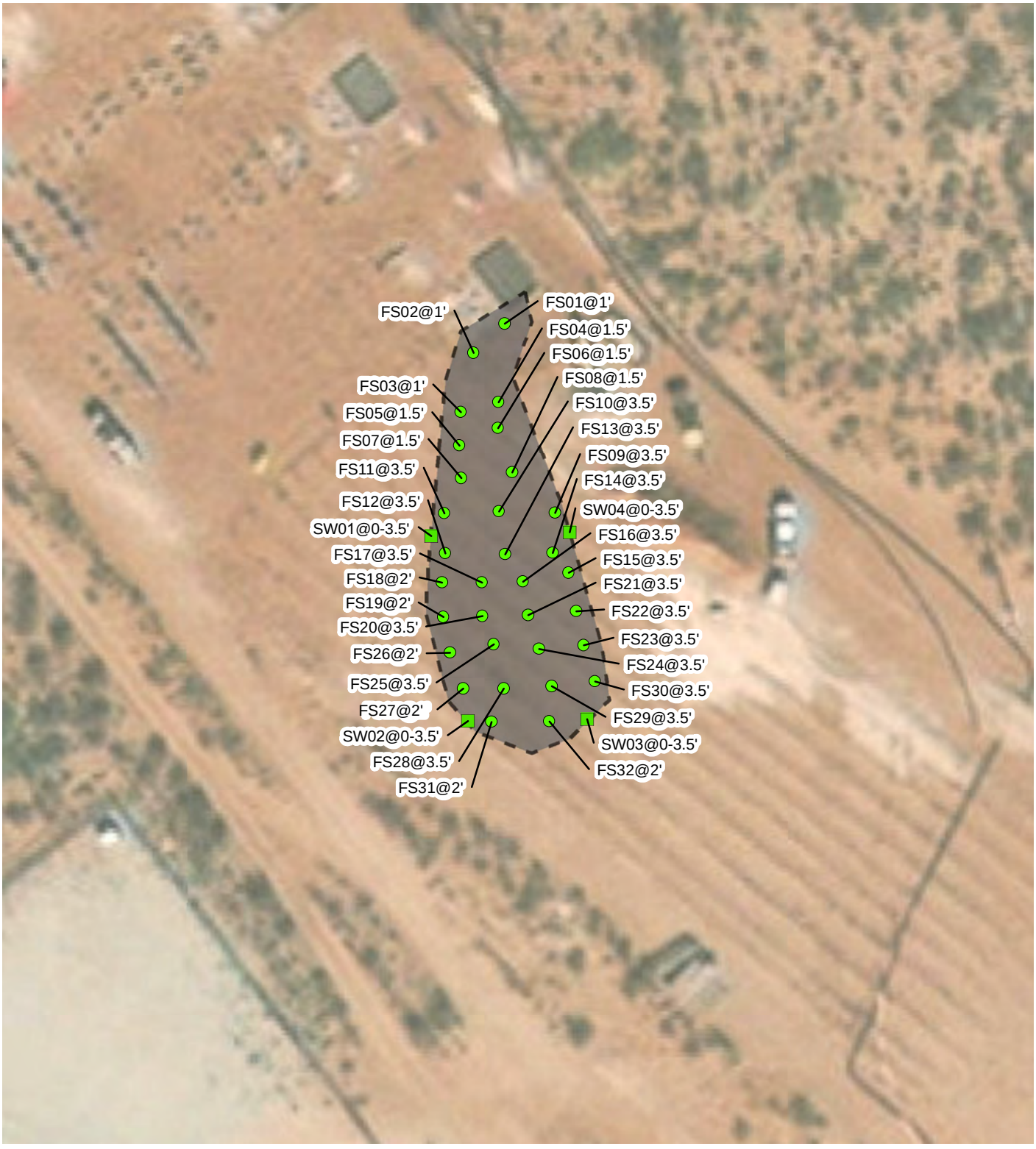
Feet

N

NOTE: INCIDENT NUMBER NAPP2111644292
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
ROW 4 BOOSTER PUMP
UNIT H SEC 9 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\31403236.005.0129_ROW 4 BOOSTER PUMP\31403236.005.0129_FIG03_DELINEATION_2021.mxd



LEGEND

FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

EXCAVATION EXTENT

IMAGE COURTESY OF ESRI

0 50 100

Feet

N

NOTE: INCIDENT NUMBER NAPP2111644292
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
ROW 4 BOOSTER PUMP
UNIT H SEC 9 T25S R30E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.

P:\XTO Energy\GIS\MXD\31403236.005.0129_ROW 4 BOOSTER PUMP\31403236.005.0129_FIG04_EXCAVATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
ROW 4 Booster Pump Station
Incident Number nAPP2111644292
XTO Energy, Inc.
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Preliminary Soil Samples										
SS01	05/13/2021	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	3,530*
SS02	05/13/2021	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	6,570*
SS03	05/13/2021	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	466*
SS04	05/13/2021	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	695*
SS05	05/13/2021	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	5,180*
Delineation Soil Samples										
PH01	06/23/2021	1	<0.00200	<0.00401	<49.7	<49.7	<49.7	<49.7	<49.7	41.0*
PH01A	06/23/2021	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	22.4*
PH02	06/23/2021	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	5,520*
PH02A	06/23/2021	2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	80.4*
PH03	06/23/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	21.6*
PH03A	06/23/2021	2	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	14.6*
PH04	06/23/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	810*
PH04A	06/23/2021	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	64.4*
PH05	06/23/2021	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	1,870*
PH05A	06/23/2021	2	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	42.7*
Excavation Floor Samples										
FS01	06/24/2021	1	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	175*
FS02	06/24/2021	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	16.8*
FS03	06/24/2021	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	195*
FS04	06/24/2021	1.5	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	467*
FS05	06/24/2021	1.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	72.0*

Table 1

Soil Analytical Results
ROW 4 Booster Pump Station
Incident Number nAPP2111644292
XTO Energy, Inc.
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS06	06/24/2021	1.5	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	17.4*
FS07	06/24/2021	1.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	9.61*
FS08	06/24/2021	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	200*
FS09	06/30/2021	3.5	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	120*
FS10	06/30/2021	3.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	69.0*
FS11	06/30/2021	3.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	41.4*
FS12	06/30/2021	3.5	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	70.5*
FS13	06/30/2021	3.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	49.9*
FS14	06/30/2021	3.5	<0.00202	<0.00403	<49.7	<49.7	<49.7	<49.7	<49.7	66.6*
FS15	06/30/2021	3.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	129*
FS16	06/30/2021	3.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	507*
FS17	06/30/2021	3.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	80.2*
FS18	06/30/2021	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	158*
FS19	06/30/2021	2	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	19.1*
FS20	06/30/2021	3.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	52.4*
FS21	06/30/2021	3.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	121*
FS22	06/30/2021	3.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	92.4*
FS23	06/30/2021	3.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	127*
FS24	06/30/2021	3.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	103*
FS25	06/30/2021	3.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	106*
FS26	06/30/2021	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	17.9*
FS27	06/30/2021	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	18.8*

Table 1

Soil Analytical Results
ROW 4 Booster Pump Station
Incident Number nAPP2111644292
XTO Energy, Inc.
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS28	06/30/2021	3.5	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	67.2*
FS29	06/30/2021	3.5	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	48.5*
FS30	06/30/2021	3.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	46.1*
FS31	06/30/2021	2	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	26.7*
FS32	06/30/2021	2	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	81.7*
Excavation Sidewall Samples										
SW01	09/02/2021	0-3.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	310*
SW02	09/02/2021	0-3.5	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	91.9*
SW03	09/02/2021	0-3.5	<0.00202	<0.00403	<49.9	66.9	<49.9	66.9	66.9	479*
SW04	09/02/2021	0-3.5	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	390*

Notes

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - motor oil range organics
NMOCD - New Mexico Oil Conservation Division
NMAC - New Mexico Administrative Code
< - indicates result is less than the stated laboratory method practical quantitation limit
NE - Not Established
BOLD - indicates results exceed the higher of the background sample result or applicable regulatory standard
Text impated soil was removed
* - indicates sample was collected in area to be reclaimed after remediation is complete;
closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg

ATTACHMENT 1: REFERENCED WELL RECORDS

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 320850103533801

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

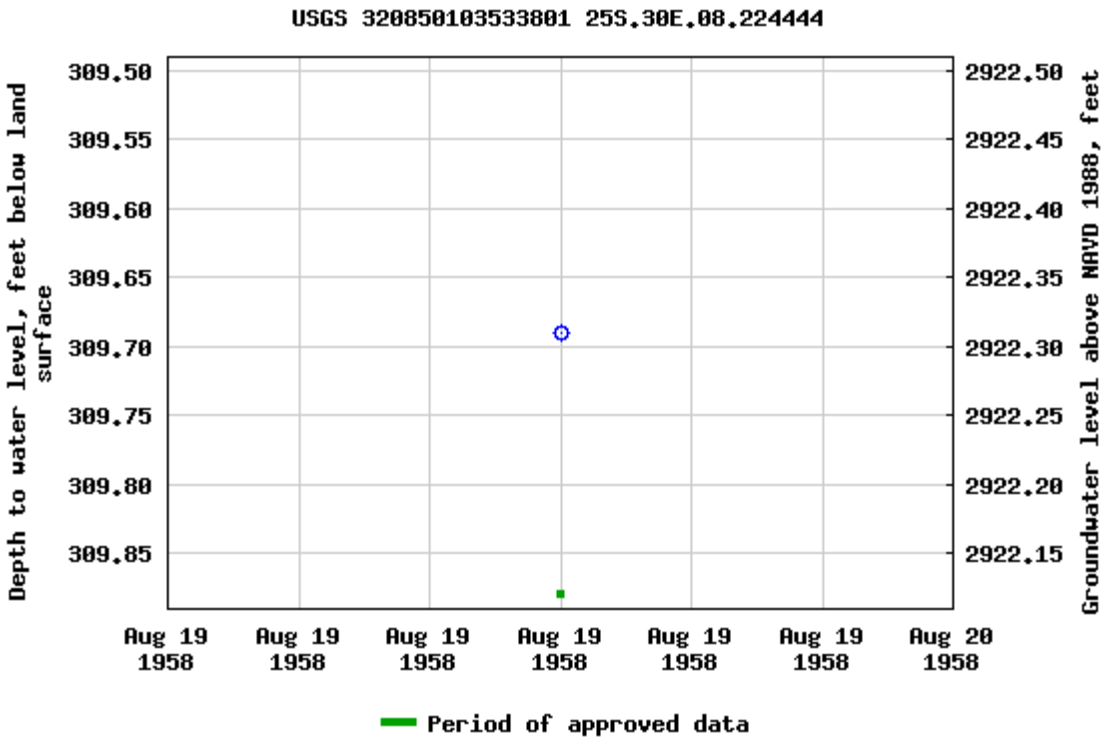
USGS 320850103533801 25S.30E.08.224444

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°08'50", Longitude 103°53'38" NAD27
Land-surface elevation 3,232 feet above NAVD88
This well is completed in the Pecos River Basin alluvial aquifer (N100PCSRVR) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Title: Groundwater for USA: Water Levels
URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

Page Contact Information: USGS Water Data Support Team
Page Last Modified: 2021-05-19 12:03:49 EDT
0.56 0.51 nadww02

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03716 POD1	4	2	2	02	25S	30E	609069	3559211

Driller License: 1229 **Driller Company:** CARTER'S WELL DRILLING

Driller Name: RICHARD CARTER

Drill Start Date:	02/05/2014	**Drill Finish Date:**	03/03/2014	**Plug Date:**	
Log File Date:	03/12/2014	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	50 GPM
Casing Size:		**Depth Well:**	600 feet	**Depth Water:**	425 feet

Water Bearing Stratifications:	Top	Bottom	Description
	442	600	Sandstone/Gravel/Conglomerate

ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH01	Date: 06/23/2021
Site Name: ROW 4 Booster Pump Station	
RP or Incident Number: nAPP211644292	
WSP Job Number: 31403236.005.0129	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BB	Method: Hydrovac		
Lat/Long: 32.146463, -103.878122	Field Screening: Hach chloride strips, PID	Hole Diameter: 10 inches	Total Depth: 2 feet bgs

Comments: All chloride field screenings include a 40% correction factor, borehole backfilled with clean topsoil fill.
M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	0-2' SAND, moist, brown, poorly graded, fine grain, some caliche gravel, no stain, no odor
M	<124	0.1	N	PH01	1	1		1-2' caliche gravel absent
M	<124	0.1	N	PH01A	2	2		

TD @ 2 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH02	Date: 06/23/2021
Site Name: ROW 4 Booster Pump Station	
RP or Incident Number: nAPP2111644292	
WSP Job Number: 314032236.005.0129	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BB	Method: Hydrovac		
Lat/Long: 32.146333, -103.878089	Field Screening: Hach chloride strips, PID	Hole Diameter: 10 inches	Total Depth: 2 feet bgs

Comments: All chloride field screenings include a 40% correction factor, borehole backfilled with clean topsoil fill.
M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	0-1' SAND, moist, brown, poorly graded, fine grain, some small caliche gravel, no stain, no odor
M	6,664	0.1	N	PH02	1	1	CCHE	1-2' CALICHE, moist, tan, well-moderately consolidated, trace fine grain sand, no stain, no odor
M	<124	0.1	N	PH02A	2	2		

TD @ 2 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH03	Date: 06/23/2021
Site Name: ROW 4 Booster Pump Station	
RP or Incident Number: nAPP211644292	
WSP Job Number: 31403236.005.0129	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BB	Method: Hydrovac		
Lat/Long: 32.146191, -103.878004	Field Screening: Hach chloride strips, PID	Hole Diameter: 10 inches	Total Depth: 2 feet bgs

Comments: All chloride field screenings include a 40% correction factor, borehole backfilled with clean topsoil fill.
M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	0-2' SAND, moist, brown, poorly graded, fine grain, some small to large caliche gravel, no stain, no odor
M	<124	0.1	N	PH03	1	1		
M	<124	0.1	N	PH03A	2	2		

TD @ 2 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH04	Date: 06/23/2021
Site Name: ROW 4 Booster Pump Station	
RP or Incident Number: nAPP211644292	
WSP Job Number: 31403236.005.0129	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BB		Method: Hydrovac	
Lat/Long: 32.146112, -103.878074	Field Screening: Hach chloride strips, PID	Hole Diameter: 10 inches	Total Depth: 2 feet bgs

Comments: All chloride field screenings include a 40% correction factor, borehole backfilled with clean topsoil fill.
M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	0-2' SAND, moist, brown, poorly graded, fine grain, some small to large caliche gravel, no stain, no odor
M	711	0.1	N	PH04	1	1		
M	<124	0.1	N	PH04A	2	2		

TD @ 2 feet bgs

WSP USA

508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH05	Date: 06/23/2021
Site Name: ROW 4 Booster Pump Station	
RP or Incident Number: nAPP211644292	
WSP Job Number: 31403236.005.0129	

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: BB	Method: Hydrovac		
Lat/Long: 32.146247, -103.878172	Field Screening: Hach chloride strips, PID	Hole Diameter: 10 inches	Total Depth: 2 feet bgs

Comments: All chloride field screenings include a 40% correction factor, borehole backfilled with clean topsoil fill.
M-moist; D-dry; Y-yes; N-no

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0	SP	0-2' SAND, moist, brown, poorly graded, fine grain, some small to large caliche gravel, no stain, no odor
M	2,279	0.1	N	PH05	1	1		
M	<124	0.1	N	PH05A	2	2		

TD @ 2 feet bgs

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	ROW 4 Booster Pump Eddy County, New Mexico	NAPP2111644292

Photo No.	Date
1	May 13, 2021

Southeast facing view of release extent during initial Site assessment.

Photo No.	Date
2	May 13, 2021

Southwest facing view of release extent during initial Site assessment.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	ROW 4 Booster Pump Eddy County, New Mexico	NAPP2111644292

Photo No.	Date
3	June 23, 2021

Northeast facing view during delineation activities.

Photo No.	Date
4	June 23, 2021

Northeast facing view during delineation activities.

PHOTOGRAPHIC LOG		
XTO Energy, Inc.	ROW 4 Booster Pump Eddy County, New Mexico	NAPP2111644292

Photo No.	Date
5	June 24, 2021

Northeast facing view during excavation activities.

Photo No.	Date
6	June 30, 2021

West facing view of final excavation extent.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-675-1
Laboratory Sample Delivery Group: 31403236.005.0129
Client Project/Site: Row 4 Booster Pump

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

Attn: Dan Moir

JKramer

Authorized for release by:
5/19/2021 9:20:16 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Laboratory Job ID: 890-675-1
SDG: 31403236.005.0129

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-675-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Job ID: 890-675-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-675-1

Receipt
The samples were received on 5/14/2021 9:57 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 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: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Client Sample ID: SS01

Date Collected: 05/13/21 16:57
Date Received: 05/14/21 09:57
Sample Depth: 0.5'

Lab Sample ID: 890-675-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 14:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 14:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 14:03	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/15/21 17:22	05/16/21 14:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 14:03	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/15/21 17:22	05/16/21 14:03	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		05/15/21 17:22	05/16/21 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*05/15/21 17:22*	*05/16/21 14:03*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/15/21 17:22*	*05/16/21 14:03*	*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		05/14/21 15:47	05/15/21 05:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/14/21 15:47	05/15/21 05:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/14/21 15:47	05/15/21 05:18	1
Total TPH	<50.0	U	50.0		mg/Kg		05/14/21 15:47	05/15/21 05:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*05/14/21 15:47*	*05/15/21 05:18*	*1*
o-Terphenyl	*119*		*70 - 130*	*05/14/21 15:47*	*05/15/21 05:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3530**		24.9		mg/Kg			05/18/21 13:13	5

Client Sample ID: SS02

Date Collected: 05/13/21 17:05
Date Received: 05/14/21 09:57
Sample Depth: 0.5'

Lab Sample ID: 890-675-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/15/21 17:22	05/16/21 14:23	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/15/21 17:22	05/16/21 14:23	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/15/21 17:22	05/16/21 14:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/15/21 17:22	05/16/21 14:23	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/15/21 17:22	05/16/21 14:23	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/15/21 17:22	05/16/21 14:23	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		05/15/21 17:22	05/16/21 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*05/15/21 17:22*	*05/16/21 14:23*	*1*
1,4-Difluorobenzene (Surr)	*126*		*70 - 130*	*05/15/21 17:22*	*05/16/21 14:23*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Client Sample ID: SS02

Date Collected: 05/13/21 17:05
Date Received: 05/14/21 09:57
Sample Depth: 0.5'

Lab Sample ID: 890-675-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/14/21 15:47	05/15/21 06:00	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/14/21 15:47	05/15/21 06:00	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/14/21 15:47	05/15/21 06:00	1
Total TPH	<49.8	U	49.8		mg/Kg		05/14/21 15:47	05/15/21 06:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*05/14/21 15:47*	*05/15/21 06:00*	*1*
o-Terphenyl	*114*		*70 - 130*	*05/14/21 15:47*	*05/15/21 06:00*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6570**		49.5		mg/Kg			05/18/21 13:28	10

Client Sample ID: SS03

Date Collected: 05/13/21 17:31
Date Received: 05/14/21 09:57
Sample Depth: 0.5'

Lab Sample ID: 890-675-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/15/21 17:22	05/16/21 14:43	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/15/21 17:22	05/16/21 14:43	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/15/21 17:22	05/16/21 14:43	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/15/21 17:22	05/16/21 14:43	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/15/21 17:22	05/16/21 14:43	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/15/21 17:22	05/16/21 14:43	1
Total BTEX	<0.00397	U	0.00397		mg/Kg		05/15/21 17:22	05/16/21 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*05/15/21 17:22*	*05/16/21 14:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/15/21 17:22*	*05/16/21 14:43*	*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		05/14/21 15:47	05/15/21 06:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 06:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 06:21	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 06:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*05/14/21 15:47*	*05/15/21 06:21*	*1*
o-Terphenyl	*102*		*70 - 130*	*05/14/21 15:47*	*05/15/21 06:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**466**		4.99		mg/Kg			05/18/21 13:33	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Client Sample ID: SS04

Date Collected: 05/13/21 17:22
Date Received: 05/14/21 09:57
Sample Depth: 0.5'

Lab Sample ID: 890-675-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/15/21 17:22	05/16/21 15:04	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/15/21 17:22	05/16/21 15:04	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/15/21 17:22	05/16/21 15:04	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/15/21 17:22	05/16/21 15:04	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/15/21 17:22	05/16/21 15:04	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/15/21 17:22	05/16/21 15:04	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		05/15/21 17:22	05/16/21 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/15/21 17:22*	*05/16/21 15:04*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/15/21 17:22*	*05/16/21 15:04*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 06:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 06:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 06:41	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 06:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*05/14/21 15:47*	*05/15/21 06:41*	*1*
o-Terphenyl	*103*		*70 - 130*	*05/14/21 15:47*	*05/15/21 06:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**695**		5.01		mg/Kg			05/18/21 13:38	1

Client Sample ID: SS05

Date Collected: 05/13/21 17:31
Date Received: 05/14/21 09:57
Sample Depth: 0.5'

Lab Sample ID: 890-675-5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 15:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 15:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 15:24	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/15/21 17:22	05/16/21 15:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 15:24	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/15/21 17:22	05/16/21 15:24	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		05/15/21 17:22	05/16/21 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*05/15/21 17:22*	*05/16/21 15:24*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/15/21 17:22*	*05/16/21 15:24*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Client Sample ID: SS05

Date Collected: 05/13/21 17:31
Date Received: 05/14/21 09:57
Sample Depth: 0.5'

Lab Sample ID: 890-675-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 07:02	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 07:02	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 07:02	1
Total TPH	<49.9	U	49.9		mg/Kg		05/14/21 15:47	05/15/21 07:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*05/14/21 15:47*	*05/15/21 07:02*	*1*
o-Terphenyl	*106*		*70 - 130*	*05/14/21 15:47*	*05/15/21 07:02*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5180**		25.2		mg/Kg			05/18/21 13:44	5

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-675-1	SS01	88	92
890-675-2	SS02	106	126
890-675-3	SS03	94	95
890-675-4	SS04	101	102
890-675-5	SS05	96	94
LCS 880-3158/1-A	Lab Control Sample	111	103
LCSD 880-3158/2-A	Lab Control Sample Dup	111	106
MB 880-3156/5-A	Method Blank	87	95
MB 880-3158/5-A	Method Blank	87	92

Surrogate Legend

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

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-675-1	SS01	117	119
890-675-2	SS02	114	114
890-675-3	SS03	104	102
890-675-4	SS04	101	103
890-675-5	SS05	104	106
LCS 880-3136/2-A	Lab Control Sample	104	97
LCSD 880-3136/3-A	Lab Control Sample Dup	103	98
MB 880-3136/1-A	Method Blank	128	133 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3156/5-A
Matrix: Solid
Analysis Batch: 3157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3156

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:13	05/15/21 20:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:13	05/15/21 20:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:13	05/15/21 20:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/15/21 17:13	05/15/21 20:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:13	05/15/21 20:43	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/15/21 17:13	05/15/21 20:43	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/15/21 17:13	05/15/21 20:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/15/21 17:13*	*05/15/21 20:43*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/15/21 17:13*	*05/15/21 20:43*	*1*

Lab Sample ID: MB 880-3158/5-A
Matrix: Solid
Analysis Batch: 3157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3158

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 07:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 07:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 07:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/15/21 17:22	05/16/21 07:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/15/21 17:22	05/16/21 07:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/15/21 17:22	05/16/21 07:34	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		05/15/21 17:22	05/16/21 07:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/15/21 17:22*	*05/16/21 07:34*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/15/21 17:22*	*05/16/21 07:34*	*1*

Lab Sample ID: LCS 880-3158/1-A
Matrix: Solid
Analysis Batch: 3157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3158

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07458		mg/Kg		75	70 - 130		
Toluene			0.100	0.07523		mg/Kg		75	70 - 130		
Ethylbenzene			0.100	0.08131		mg/Kg		81	70 - 130		
m-Xylene & p-Xylene			0.200	0.1725		mg/Kg		86	70 - 130		
o-Xylene			0.100	0.08903		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

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

Lab Sample ID: LCSD 880-3158/2-A
Matrix: Solid
Analysis Batch: 3157

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3158

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08353		mg/Kg		84	70 - 130	11	35
Toluene			0.100	0.08312		mg/Kg		83	70 - 130	10	35
Ethylbenzene			0.100	0.09078		mg/Kg		91	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1920		mg/Kg		96	70 - 130	11	35
o-Xylene			0.100	0.09911		mg/Kg		99	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: MB 880-3136/1-A
Matrix: Solid
Analysis Batch: 3108

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3136

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		05/14/21 15:47	05/15/21 00:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/14/21 15:47	05/15/21 00:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/14/21 15:47	05/15/21 00:26	1
Total TPH	<50.0	U	50.0		mg/Kg		05/14/21 15:47	05/15/21 00:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*128*		*70 - 130*	*05/14/21 15:47*	*05/15/21 00:26*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*05/14/21 15:47*	*05/15/21 00:26*	*1*

Lab Sample ID: LCS 880-3136/2-A
Matrix: Solid
Analysis Batch: 3108

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3136

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	898.1		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1059		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: LCSD 880-3136/3-A
Matrix: Solid
Analysis Batch: 3108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3136

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	889.0		mg/Kg		89	70 - 130	1	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

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

Lab Sample ID: LCSD 880-3136/3-A
Matrix: Solid
Analysis Batch: 3108

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3136

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	1061		mg/Kg		106	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*98*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3181/1-A
Matrix: Solid
Analysis Batch: 3182

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			05/18/21 12:26	1

Lab Sample ID: LCS 880-3181/2-A
Matrix: Solid
Analysis Batch: 3182

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	252.8		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-3181/3-A
Matrix: Solid
Analysis Batch: 3182

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	249.8		mg/Kg		100	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

GC VOA

Prep Batch: 3156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-3156/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 3157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-675-1	SS01	Total/NA	Solid	8021B	3158
890-675-2	SS02	Total/NA	Solid	8021B	3158
890-675-3	SS03	Total/NA	Solid	8021B	3158
890-675-4	SS04	Total/NA	Solid	8021B	3158
890-675-5	SS05	Total/NA	Solid	8021B	3158
MB 880-3156/5-A	Method Blank	Total/NA	Solid	8021B	3156
MB 880-3158/5-A	Method Blank	Total/NA	Solid	8021B	3158
LCS 880-3158/1-A	Lab Control Sample	Total/NA	Solid	8021B	3158
LCSD 880-3158/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3158

Prep Batch: 3158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-675-1	SS01	Total/NA	Solid	5035	
890-675-2	SS02	Total/NA	Solid	5035	
890-675-3	SS03	Total/NA	Solid	5035	
890-675-4	SS04	Total/NA	Solid	5035	
890-675-5	SS05	Total/NA	Solid	5035	
MB 880-3158/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3158/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3158/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 3108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-675-1	SS01	Total/NA	Solid	8015B NM	3136
890-675-2	SS02	Total/NA	Solid	8015B NM	3136
890-675-3	SS03	Total/NA	Solid	8015B NM	3136
890-675-4	SS04	Total/NA	Solid	8015B NM	3136
890-675-5	SS05	Total/NA	Solid	8015B NM	3136
MB 880-3136/1-A	Method Blank	Total/NA	Solid	8015B NM	3136
LCS 880-3136/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3136
LCSD 880-3136/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3136

Prep Batch: 3136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-675-1	SS01	Total/NA	Solid	8015NM Prep	
890-675-2	SS02	Total/NA	Solid	8015NM Prep	
890-675-3	SS03	Total/NA	Solid	8015NM Prep	
890-675-4	SS04	Total/NA	Solid	8015NM Prep	
890-675-5	SS05	Total/NA	Solid	8015NM Prep	
MB 880-3136/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3136/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3136/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

HPLC/IC

Leach Batch: 3181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-675-1	SS01	Soluble	Solid	DI Leach	
890-675-2	SS02	Soluble	Solid	DI Leach	
890-675-3	SS03	Soluble	Solid	DI Leach	
890-675-4	SS04	Soluble	Solid	DI Leach	
890-675-5	SS05	Soluble	Solid	DI Leach	
MB 880-3181/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3181/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3181/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-675-1	SS01	Soluble	Solid	300.0	3181
890-675-2	SS02	Soluble	Solid	300.0	3181
890-675-3	SS03	Soluble	Solid	300.0	3181
890-675-4	SS04	Soluble	Solid	300.0	3181
890-675-5	SS05	Soluble	Solid	300.0	3181
MB 880-3181/1-A	Method Blank	Soluble	Solid	300.0	3181
LCS 880-3181/2-A	Lab Control Sample	Soluble	Solid	300.0	3181
LCSD 880-3181/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3181

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-675-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Client Sample ID: SS01 Lab Sample ID: 890-675-1
Date Collected: 05/13/21 16:57 **Matrix: Solid**
Date Received: 05/14/21 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3158	05/15/21 17:22	MR	XEN MID
Total/NA	Analysis	8021B		1	3157	05/16/21 14:03	MR	XEN MID
Total/NA	Prep	8015NM Prep			3136	05/14/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3108	05/15/21 05:18	AJ	XEN MID
Soluble	Leach	DI Leach			3181	05/17/21 15:21	CH	XEN MID
Soluble	Analysis	300.0		5	3182	05/18/21 13:13	CH	XEN MID

Client Sample ID: SS02 Lab Sample ID: 890-675-2
Date Collected: 05/13/21 17:05 **Matrix: Solid**
Date Received: 05/14/21 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3158	05/15/21 17:22	MR	XEN MID
Total/NA	Analysis	8021B		1	3157	05/16/21 14:23	MR	XEN MID
Total/NA	Prep	8015NM Prep			3136	05/14/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3108	05/15/21 06:00	AJ	XEN MID
Soluble	Leach	DI Leach			3181	05/17/21 15:21	CH	XEN MID
Soluble	Analysis	300.0		10	3182	05/18/21 13:28	CH	XEN MID

Client Sample ID: SS03 Lab Sample ID: 890-675-3
Date Collected: 05/13/21 17:31 **Matrix: Solid**
Date Received: 05/14/21 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3158	05/15/21 17:22	MR	XEN MID
Total/NA	Analysis	8021B		1	3157	05/16/21 14:43	MR	XEN MID
Total/NA	Prep	8015NM Prep			3136	05/14/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3108	05/15/21 06:21	AJ	XEN MID
Soluble	Leach	DI Leach			3181	05/17/21 15:21	CH	XEN MID
Soluble	Analysis	300.0		1	3182	05/18/21 13:33	CH	XEN MID

Client Sample ID: SS04 Lab Sample ID: 890-675-4
Date Collected: 05/13/21 17:22 **Matrix: Solid**
Date Received: 05/14/21 09:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3158	05/15/21 17:22	MR	XEN MID
Total/NA	Analysis	8021B		1	3157	05/16/21 15:04	MR	XEN MID
Total/NA	Prep	8015NM Prep			3136	05/14/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3108	05/15/21 06:41	AJ	XEN MID
Soluble	Leach	DI Leach			3181	05/17/21 15:21	CH	XEN MID
Soluble	Analysis	300.0		1	3182	05/18/21 13:38	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Client Sample ID: SS05

Date Collected: 05/13/21 17:31
Date Received: 05/14/21 09:57

Lab Sample ID: 890-675-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3158	05/15/21 17:22	MR	XEN MID
Total/NA	Analysis	8021B		1	3157	05/16/21 15:24	MR	XEN MID
Total/NA	Prep	8015NM Prep			3136	05/14/21 15:47	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3108	05/15/21 07:02	AJ	XEN MID
Soluble	Leach	DI Leach			3181	05/17/21 15:21	CH	XEN MID
Soluble	Analysis	300.0		5	3182	05/18/21 13:44	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: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

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	06-30-21

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

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: Row 4 Booster Pump

Job ID: 890-675-1
SDG: 31403236.005.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-675-1	SS01	Solid	05/13/21 16:57	05/14/21 09:57	0.5'
890-675-2	SS02	Solid	05/13/21 17:05	05/14/21 09:57	0.5'
890-675-3	SS03	Solid	05/13/21 17:31	05/14/21 09:57	0.5'
890-675-4	SS04	Solid	05/13/21 17:22	05/14/21 09:57	0.5'
890-675-5	SS05	Solid	05/13/21 17:31	05/14/21 09:57	0.5'

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

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	WSP Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 e Green Street
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM, 88220
Phone:	(432) 236-3849 Email:	Email:	Elliot.Lee@wsp.com, Kalei.Jennings@wsp.com

Work Order Comments

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

Project Name:	Row 4 Booster Pump	Turn Around	
Project Number:	31403236.005.0129	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Elliot Lee	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes (No) CLC	Wet Ice:	(Yes) No
Temperature (°C):	2.0/1.8	Thermometer ID	ZNM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

Cost Center 1084311001
Incident # NAPP2111644292

890-675 Chain of Custody

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	5/13/2021	16:57	0.5	1	X	X	X	Discrete
SS02	S	5/13/2021	17:05	0.5	1	X	X	X	Discrete
SS03	S	5/13/2021	17:15	0.5	1	X	X	X	Discrete
SS04	S	5/13/2021	17:22	0.5	1	X	X	X	Discrete
SS05	S	5/13/2021	17:31	0.5	1	X	X	X	Discrete

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Clae Clifton	5-14-21 0957	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-675-1
SDG Number: 31403236.005.0129

Login Number: 675
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: 890-675-1
SDG Number: 31403236.005.0129

Login Number: 675
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 05/14/21 04:08 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-872-1
Laboratory Sample Delivery Group: 31403236.005.0129
Client Project/Site: Row 4 Booster Pump

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

Attn: Dan Moir

JKramer

Authorized for release by:
6/30/2021 4:19:09 PM

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

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Laboratory Job ID: 890-872-1
SDG: 31403236.005.0129

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Qualifiers

GC VOA

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

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. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Job ID: 890-872-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-872-1

Comments
No additional comments.

Receipt
The samples were received on 6/25/2021 9:53 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-872-1), FS02 (890-872-2), FS03 (890-872-3), FS04 (890-872-4), FS05 (890-872-5), FS06 (890-872-6), FS07 (890-872-7) and FS08 (890-872-8).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: FS03 (890-872-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Internal standard responses were outside of acceptance limits for the following sample: FS02 (890-872-2). The sample(s) shows evidence of matrix interference.

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

GC Semi VOA
Method 8015B NM: The continuing calibration verification (CCV) associated with batch 880-4683 recovered above the upper control limit for Gasoline Range Organics (GRO)-C6-C10. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-4683/3).

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

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Client Sample ID: FS01

Lab Sample ID: 890-872-1

Date Collected: 06/24/21 14:00
Matrix: Solid
Date Received: 06/25/21 09:53
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F1	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 02:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:48	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 02:48	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 02:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*06/28/21 15:03*	*06/29/21 02:48*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/28/21 15:03*	*06/29/21 02:48*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 14:03	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 14:03	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 14:03	1
Total TPH	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*06/28/21 09:49*	*06/28/21 14:03*	*1*
o-Terphenyl	*92*		*70 - 130*	*06/28/21 09:49*	*06/28/21 14:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**175**		5.05		mg/Kg			06/29/21 21:54	1

Client Sample ID: FS02

Lab Sample ID: 890-872-2

Date Collected: 06/24/21 14:10
Matrix: Solid
Date Received: 06/25/21 09:53
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		06/28/21 15:03	06/29/21 03:08	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 03:08	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 03:08	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/28/21 15:03	06/29/21 03:08	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 03:08	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/28/21 15:03	06/29/21 03:08	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		06/28/21 15:03	06/29/21 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*06/28/21 15:03*	*06/29/21 03:08*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*06/28/21 15:03*	*06/29/21 03:08*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Client Sample ID: FS02

Lab Sample ID: 890-872-2

Date Collected: 06/24/21 14:10
Matrix: Solid
Date Received: 06/25/21 09:53
Sample Depth: - 1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/29/21 14:59	06/29/21 16:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/29/21 14:59	06/29/21 16:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/29/21 14:59	06/29/21 16:27	1
Total TPH	<50.0	U	50.0		mg/Kg		06/29/21 14:59	06/29/21 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*06/28/21 09:49*	*06/28/21 14:53*	*1*
o-Terphenyl	*115*		*70 - 130*	*06/28/21 09:49*	*06/28/21 14:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.8**		5.04		mg/Kg			06/29/21 16:29	1

Client Sample ID: FS03

Lab Sample ID: 890-872-3

Date Collected: 06/24/21 14:20
Matrix: Solid
Date Received: 06/25/21 09:53
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 03:28	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 03:28	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 03:28	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 03:28	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 03:28	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 03:28	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*139*	*S1+*	*70 - 130*	*06/28/21 15:03*	*06/29/21 03:28*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/28/21 15:03*	*06/29/21 03:28*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:06	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:06*	*1*
o-Terphenyl	*91*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**195**		4.99		mg/Kg			06/29/21 16:36	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Client Sample ID: FS04

Lab Sample ID: 890-872-4

Date Collected: 06/24/21 14:30
Matrix: Solid
Date Received: 06/25/21 09:53
Sample Depth: - 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 03:49	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 03:49	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 03:49	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		06/28/21 15:03	06/29/21 03:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 03:49	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		06/28/21 15:03	06/29/21 03:49	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		06/28/21 15:03	06/29/21 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/28/21 15:03*	*06/29/21 03:49*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/28/21 15:03*	*06/29/21 03:49*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:19	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:19	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:19	1
Total TPH	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:19*	*1*
o-Terphenyl	*106*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**467**		5.00		mg/Kg			06/29/21 16:41	1

Client Sample ID: FS05

Lab Sample ID: 890-872-5

Date Collected: 06/24/21 15:00
Matrix: Solid
Date Received: 06/25/21 09:53
Sample Depth: - 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:09	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:09	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:09	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 04:09	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:09	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 04:09	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 04:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*06/28/21 15:03*	*06/29/21 04:09*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/28/21 15:03*	*06/29/21 04:09*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Client Sample ID: FS05 Lab Sample ID: 890-872-5

Date Collected: 06/24/21 15:00 **Matrix: Solid**
Date Received: 06/25/21 09:53
Sample Depth: - 1.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:31	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:31	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:31	1
Total TPH	<49.8	U	49.8		mg/Kg		06/28/21 09:49	06/28/21 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:31*	*1*
o-Terphenyl	*88*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.0**		5.05		mg/Kg			06/29/21 16:45	1

Client Sample ID: FS06 Lab Sample ID: 890-872-6

Date Collected: 06/24/21 15:20 **Matrix: Solid**
Date Received: 06/25/21 09:53
Sample Depth: - 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 04:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 04:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 04:30	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 04:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/28/21 15:03*	*06/29/21 04:30*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*06/28/21 15:03*	*06/29/21 04:30*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 15:44	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 15:44	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 15:44	1
Total TPH	<49.7	U	49.7		mg/Kg		06/28/21 09:49	06/28/21 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:44*	*1*
o-Terphenyl	*120*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**17.4**		5.02		mg/Kg			06/29/21 16:50	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Client Sample ID: FS07

Lab Sample ID: 890-872-7

Date Collected: 06/24/21 15:40
Matrix: Solid
Date Received: 06/25/21 09:53
Sample Depth: - 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 04:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 04:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 04:50	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 04:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 04:50	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 04:50	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 04:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/28/21 15:03*	*06/29/21 04:50*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/28/21 15:03*	*06/29/21 04:50*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:57	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:57	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:57*	*1*
o-Terphenyl	*105*		*70 - 130*	*06/28/21 09:49*	*06/28/21 15:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.61**		5.01		mg/Kg			06/29/21 17:04	1

Client Sample ID: FS08

Lab Sample ID: 890-872-8

Date Collected: 06/24/21 16:00
Matrix: Solid
Date Received: 06/25/21 09:53
Sample Depth: - 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 05:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 05:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 05:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 05:11	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 05:11	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 05:11	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*06/28/21 15:03*	*06/29/21 05:11*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/28/21 15:03*	*06/29/21 05:11*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Client Sample ID: FS08

Date Collected: 06/24/21 16:00
Date Received: 06/25/21 09:53
Sample Depth: - 1.5

Lab Sample ID: 890-872-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 16:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 16:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 16:09	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*06/28/21 09:49*	*06/28/21 16:09*	*1*
o-Terphenyl	*85*		*70 - 130*	*06/28/21 09:49*	*06/28/21 16:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**200**		5.04		mg/Kg			06/29/21 17:09	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-872-1	FS01	108	91
890-872-1 MS	FS01	102	92
890-872-1 MSD	FS01	114	91
890-872-2	FS02	122	90
890-872-3	FS03	139 S1+	94
890-872-4	FS04	110	95
890-872-5	FS05	109	97
890-872-6	FS06	110	96
890-872-7	FS07	113	94
890-872-8	FS08	114	97
LCS 880-4710/1-A	Lab Control Sample	100	91
LCSD 880-4710/2-A	Lab Control Sample Dup	97	91
MB 880-4688/5-A	Method Blank	111	92
MB 880-4710/5-A	Method Blank	112	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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-872-1	FS01	95	92
890-872-1 MS	FS01	98	103
890-872-1 MSD	FS01	85	92
890-872-2	FS02	114	115
890-872-3	FS03	96	91
890-872-4	FS04	101	106
890-872-5	FS05	98	88
890-872-6	FS06	105	120
890-872-7	FS07	102	105
890-872-8	FS08	98	85
LCS 880-4675/2-A	Lab Control Sample	109	108
LCS 880-4709/2-A	Lab Control Sample	100	97
LCSD 880-4675/3-A	Lab Control Sample Dup	106	102
LCSD 880-4709/3-A	Lab Control Sample Dup	100	96
MB 880-4675/1-A	Method Blank	95	95
MB 880-4709/1-A	Method Blank	93	100

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4688/5-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4688

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*06/28/21 11:30*	*06/28/21 14:45*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/28/21 11:30*	*06/28/21 14:45*	*1*

Lab Sample ID: MB 880-4710/5-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4710

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/28/21 15:03	06/29/21 02:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/28/21 15:03*	*06/29/21 02:19*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/28/21 15:03*	*06/29/21 02:19*	*1*

Lab Sample ID: LCS 880-4710/1-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4710

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08844		mg/Kg		88	70 - 130		
Toluene			0.100	0.1060		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.1106		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2288		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1116		mg/Kg		112	70 - 130		

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

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

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

Lab Sample ID: LCSD 880-4710/2-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4710

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08999		mg/Kg		90	70 - 130	2	35
Toluene			0.100	0.1087		mg/Kg		109	70 - 130	2	35
Ethylbenzene			0.100	0.1115		mg/Kg		112	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2304		mg/Kg		115	70 - 130	1	35
o-Xylene			0.100	0.1120		mg/Kg		112	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

Lab Sample ID: 890-872-1 MS
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 4710

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U F1	0.0998	0.07708		mg/Kg		77	70 - 130
Toluene	<0.00200	U	0.0998	0.09427		mg/Kg		94	70 - 130
Ethylbenzene	<0.00200	U	0.0998	0.09692		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2015		mg/Kg		101	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09867		mg/Kg		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 890-872-1 MSD
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 4710

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U F1	0.100	0.05740	F1	mg/Kg		57	70 - 130	29	35
Toluene	<0.00200	U	0.100	0.07802		mg/Kg		78	70 - 130	19	35
Ethylbenzene	<0.00200	U	0.100	0.08228		mg/Kg		82	70 - 130	16	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1755		mg/Kg		88	70 - 130	14	35
o-Xylene	<0.00200	U	0.100	0.08964		mg/Kg		89	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

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

Lab Sample ID: MB 880-4675/1-A
Matrix: Solid
Analysis Batch: 4683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4675

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 12:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 12:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 12:18	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 09:49	06/28/21 12:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*06/28/21 09:49*	*06/28/21 12:18*	*1*
o-Terphenyl	*95*		*70 - 130*	*06/28/21 09:49*	*06/28/21 12:18*	*1*

Lab Sample ID: LCS 880-4675/2-A
Matrix: Solid
Analysis Batch: 4683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4675

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	960.1		mg/Kg		96	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	867.8		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: LCSD 880-4675/3-A
Matrix: Solid
Analysis Batch: 4683

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4675

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	955.3		mg/Kg		96	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	850.1		mg/Kg		85	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*102*		*70 - 130*

Lab Sample ID: 890-872-1 MS
Matrix: Solid
Analysis Batch: 4683

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 4675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	999	891.4		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U	999	876.8		mg/Kg		86	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

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

Lab Sample ID: 890-872-1 MS
Matrix: Solid
Analysis Batch: 4683

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 4675

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: 890-872-1 MSD
Matrix: Solid
Analysis Batch: 4683

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 4675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	997	834.5		mg/Kg		82	70 - 130	7	20
Diesel Range Organics (Over C10-C28)	<49.7	U	997	760.5		mg/Kg		75	70 - 130	14	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: MB 880-4709/1-A
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4709

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	06/28/21 14:59	06/29/21 12:16	1
o-Terphenyl	100		70 - 130	06/28/21 14:59	06/29/21 12:16	1

Lab Sample ID: LCS 880-4709/2-A
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4709

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	949.3		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	933.8		mg/Kg		93	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	97		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

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

Lab Sample ID: LCSD 880-4709/3-A
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4709

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	935.9		mg/Kg		94	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	919.2		mg/Kg		92	70 - 130	2	20

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4676/1-A
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/29/21 16:15	1

Lab Sample ID: LCS 880-4676/2-A
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	234.8		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-4676/3-A
Matrix: Solid
Analysis Batch: 4732

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	234.7		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-872-2 MS
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: FS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	16.8		252	252.8		mg/Kg		94	90 - 110		

Lab Sample ID: 890-872-2 MSD
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: FS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	16.8		252	253.3		mg/Kg		94	90 - 110	0	20

QC Sample Results

Client: WSP USA Inc. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-4677/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4733

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/29/21 18:55	1

Lab Sample ID: LCS 880-4677/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	234.5		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-4677/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	235.1		mg/Kg		94	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

GC VOA

Prep Batch: 4688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-4688/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 4689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-1	FS01	Total/NA	Solid	8021B	4710
890-872-2	FS02	Total/NA	Solid	8021B	4710
890-872-3	FS03	Total/NA	Solid	8021B	4710
890-872-4	FS04	Total/NA	Solid	8021B	4710
890-872-5	FS05	Total/NA	Solid	8021B	4710
890-872-6	FS06	Total/NA	Solid	8021B	4710
890-872-7	FS07	Total/NA	Solid	8021B	4710
890-872-8	FS08	Total/NA	Solid	8021B	4710
MB 880-4688/5-A	Method Blank	Total/NA	Solid	8021B	4688
MB 880-4710/5-A	Method Blank	Total/NA	Solid	8021B	4710
LCS 880-4710/1-A	Lab Control Sample	Total/NA	Solid	8021B	4710
LCSD 880-4710/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4710
890-872-1 MS	FS01	Total/NA	Solid	8021B	4710
890-872-1 MSD	FS01	Total/NA	Solid	8021B	4710

Prep Batch: 4710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-1	FS01	Total/NA	Solid	5035	
890-872-2	FS02	Total/NA	Solid	5035	
890-872-3	FS03	Total/NA	Solid	5035	
890-872-4	FS04	Total/NA	Solid	5035	
890-872-5	FS05	Total/NA	Solid	5035	
890-872-6	FS06	Total/NA	Solid	5035	
890-872-7	FS07	Total/NA	Solid	5035	
890-872-8	FS08	Total/NA	Solid	5035	
MB 880-4710/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4710/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4710/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-872-1 MS	FS01	Total/NA	Solid	5035	
890-872-1 MSD	FS01	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 4675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-1	FS01	Total/NA	Solid	8015NM Prep	
890-872-2	FS02	Total/NA	Solid	8015NM Prep	
890-872-3	FS03	Total/NA	Solid	8015NM Prep	
890-872-4	FS04	Total/NA	Solid	8015NM Prep	
890-872-5	FS05	Total/NA	Solid	8015NM Prep	
890-872-6	FS06	Total/NA	Solid	8015NM Prep	
890-872-7	FS07	Total/NA	Solid	8015NM Prep	
890-872-8	FS08	Total/NA	Solid	8015NM Prep	
MB 880-4675/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4675/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4675/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-872-1 MS	FS01	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

GC Semi VOA (Continued)

Prep Batch: 4675 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 4683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-1	FS01	Total/NA	Solid	8015B NM	4675
890-872-2	FS02	Total/NA	Solid	8015B NM	4675
890-872-3	FS03	Total/NA	Solid	8015B NM	4675
890-872-4	FS04	Total/NA	Solid	8015B NM	4675
890-872-5	FS05	Total/NA	Solid	8015B NM	4675
890-872-6	FS06	Total/NA	Solid	8015B NM	4675
890-872-7	FS07	Total/NA	Solid	8015B NM	4675
890-872-8	FS08	Total/NA	Solid	8015B NM	4675
MB 880-4675/1-A	Method Blank	Total/NA	Solid	8015B NM	4675
LCS 880-4675/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4675
LCSD 880-4675/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4675
890-872-1 MS	FS01	Total/NA	Solid	8015B NM	4675
890-872-1 MSD	FS01	Total/NA	Solid	8015B NM	4675

Prep Batch: 4709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-2	FS02	Total/NA	Solid	8015NM Prep	
MB 880-4709/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4709/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 4725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-2	FS02	Total/NA	Solid	8015B NM	4709
MB 880-4709/1-A	Method Blank	Total/NA	Solid	8015B NM	4709
LCS 880-4709/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4709
LCSD 880-4709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4709

HPLC/IC

Leach Batch: 4676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-2	FS02	Soluble	Solid	DI Leach	
890-872-3	FS03	Soluble	Solid	DI Leach	
890-872-4	FS04	Soluble	Solid	DI Leach	
890-872-5	FS05	Soluble	Solid	DI Leach	
890-872-6	FS06	Soluble	Solid	DI Leach	
890-872-7	FS07	Soluble	Solid	DI Leach	
890-872-8	FS08	Soluble	Solid	DI Leach	
MB 880-4676/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4676/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4676/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-872-2 MS	FS02	Soluble	Solid	DI Leach	
890-872-2 MSD	FS02	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

HPLC/IC

Leach Batch: 4677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-1	FS01	Soluble	Solid	DI Leach	
MB 880-4677/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4677/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4677/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 4732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-2	FS02	Soluble	Solid	300.0	4676
890-872-3	FS03	Soluble	Solid	300.0	4676
890-872-4	FS04	Soluble	Solid	300.0	4676
890-872-5	FS05	Soluble	Solid	300.0	4676
890-872-6	FS06	Soluble	Solid	300.0	4676
890-872-7	FS07	Soluble	Solid	300.0	4676
890-872-8	FS08	Soluble	Solid	300.0	4676
MB 880-4676/1-A	Method Blank	Soluble	Solid	300.0	4676
LCS 880-4676/2-A	Lab Control Sample	Soluble	Solid	300.0	4676
LCSD 880-4676/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4676
890-872-2 MS	FS02	Soluble	Solid	300.0	4676
890-872-2 MSD	FS02	Soluble	Solid	300.0	4676

Analysis Batch: 4733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-872-1	FS01	Soluble	Solid	300.0	4677
MB 880-4677/1-A	Method Blank	Soluble	Solid	300.0	4677
LCS 880-4677/2-A	Lab Control Sample	Soluble	Solid	300.0	4677
LCSD 880-4677/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4677

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Client Sample ID: FS01 Lab Sample ID: 890-872-1

Date Collected: 06/24/21 14:00 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 02:48	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 14:03	AJ	XEN MID
Soluble	Leach	DI Leach			4677	06/28/21 10:23	CH	XEN MID
Soluble	Analysis	300.0		1	4733	06/29/21 21:54	CH	XEN MID

Client Sample ID: FS02 Lab Sample ID: 890-872-2

Date Collected: 06/24/21 14:10 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 03:08	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 14:53	AJ	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/29/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 16:27	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 16:29	CH	XEN MID

Client Sample ID: FS03 Lab Sample ID: 890-872-3

Date Collected: 06/24/21 14:20 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 03:28	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 15:06	AJ	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 16:36	CH	XEN MID

Client Sample ID: FS04 Lab Sample ID: 890-872-4

Date Collected: 06/24/21 14:30 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 03:49	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 15:19	AJ	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 16:41	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-872-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Client Sample ID: FS05 Lab Sample ID: 890-872-5

Date Collected: 06/24/21 15:00 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 04:09	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 15:31	AJ	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 16:45	CH	XEN MID

Client Sample ID: FS06 Lab Sample ID: 890-872-6

Date Collected: 06/24/21 15:20 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 04:30	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 15:44	AJ	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 16:50	CH	XEN MID

Client Sample ID: FS07 Lab Sample ID: 890-872-7

Date Collected: 06/24/21 15:40 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 04:50	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 15:57	AJ	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:04	CH	XEN MID

Client Sample ID: FS08 Lab Sample ID: 890-872-8

Date Collected: 06/24/21 16:00 **Matrix: Solid**
Date Received: 06/25/21 09:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 05:11	MR	XEN MID
Total/NA	Prep	8015NM Prep			4675	06/28/21 09:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4683	06/28/21 16:09	AJ	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:09	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: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

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	06-30-21

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

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: Row 4 Booster Pump

Job ID: 890-872-1
SDG: 31403236.005.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-872-1	FS01	Solid	06/24/21 14:00	06/25/21 09:53	- 1
890-872-2	FS02	Solid	06/24/21 14:10	06/25/21 09:53	- 1
890-872-3	FS03	Solid	06/24/21 14:20	06/25/21 09:53	- 1
890-872-4	FS04	Solid	06/24/21 14:30	06/25/21 09:53	- 1.5
890-872-5	FS05	Solid	06/24/21 15:00	06/25/21 09:53	- 1.5
890-872-6	FS06	Solid	06/24/21 15:20	06/25/21 09:53	- 1.5
890-872-7	FS07	Solid	06/24/21 15:40	06/25/21 09:53	- 1.5
890-872-8	FS08	Solid	06/24/21 16:00	06/25/21 09:53	- 1.5

Chain of Custody

XENCO LABORATORIES

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

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Work Order No: _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	bbelill@ltenv.com

Work Order Comments

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

Project Name:	BDW4 Booster Pump	Turn Around	
Project Number:	31403236.005, 0129	Routine ☐	
P.O. Number:	nAPP2111641292	Rush: ~~24HR~~ LAB	
Sampler's Name:	Benjamin Belill	Due Date: 3 DAY	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.0/2.8	Thermometer ID	
Received Intact:	(Yes) No	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	S	6/24/21	1400	1'	1	X	X	X
FS02			1410	1'				
FS03			1420	1'				
FS04			1430	1.5'				
FS05			1500	1.5'				
FS06			1520	1.5'				
FS07			1540	1.5'				
FS08			1600	1.5'				

890-872 Chain of Custody

Work Order Notes

CC: 10843/1001
API: 3001521095

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

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr 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			6/25/21 0936	2		6/25/21 9:53
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: 890-279 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 #: 890-872-1
Address: 1211 W Florida Ave	Due Date Requested: 6/30/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Row 4 Booster Pump	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/8016NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
FS01 (890-872-1)	6/24/21	14 00 Mountain		Solid			X	X	X	1	
FS02 (890-872-2)	6/24/21	14 10 Mountain		Solid			X	X	X	1	
FS03 (890-872-3)	6/24/21	14 20 Mountain		Solid			X	X	X	1	
FS04 (890-872-4)	6/24/21	14 30 Mountain		Solid			X	X	X	1	
FS05 (890-872-5)	6/24/21	15 00 Mountain		Solid			X	X	X	1	
FS06 (890-872-6)	6/24/21	15 20 Mountain		Solid			X	X	X	1	
FS07 (890-872-7)	6/24/21	15 40 Mountain		Solid			X	X	X	1	
FS08 (890-872-8)	6/24/21	16 00 Mountain		Solid			X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Joe Ortiz 6.25.21	Date/Time:	Company	Received by:	Date/Time: 6-25-21 9:00 am	Company
Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

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

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-872-1
SDG Number: 31403236.005.0129

Login Number: 872
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: 890-872-1
SDG Number: 31403236.005.0129

Login Number: 872
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/28/21 09:15 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: 890-874-1
Laboratory Sample Delivery Group: 31403236.005.0129
Client Project/Site: Row 4 Booster Pump

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

Attn: Dan Moir

JKramer

Authorized for release by:
6/30/2021 4:23:21 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: Row 4 Booster Pump

Laboratory Job ID: 890-874-1
SDG: 31403236.005.0129

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

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: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Job ID: 890-874-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-874-1

Receipt
The samples were received on 6/25/2021 9:52 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA
Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: PH02 (890-874-3) and PH03A (890-874-6). The sample(s) shows evidence of matrix interference.

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: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH01

Lab Sample ID: 890-874-1

Date Collected: 06/23/21 10:15
Matrix: Solid
Date Received: 06/25/21 09:52
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 05:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:31	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 05:31	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 05:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/28/21 15:03*	*06/29/21 05:31*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/28/21 15:03*	*06/29/21 05:31*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/28/21 14:59	06/29/21 13:19	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		06/28/21 14:59	06/29/21 13:19	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/28/21 14:59	06/29/21 13:19	1
Total TPH	<49.7	U	49.7		mg/Kg		06/28/21 14:59	06/29/21 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*06/28/21 14:59*	*06/29/21 13:19*	*1*
o-Terphenyl	*103*		*70 - 130*	*06/28/21 14:59*	*06/29/21 13:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.0**		4.95		mg/Kg			06/29/21 17:14	1

Client Sample ID: PH01A

Lab Sample ID: 890-874-2

Date Collected: 06/23/21 10:20
Matrix: Solid
Date Received: 06/25/21 09:52
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:51	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 05:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 05:51	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 05:51	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 05:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*06/28/21 15:03*	*06/29/21 05:51*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/28/21 15:03*	*06/29/21 05:51*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Client Sample ID: PH01A
Lab Sample ID: 890-874-2
Date Collected: 06/23/21 10:20
Matrix: Solid
Date Received: 06/25/21 09:52
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		06/28/21 14:59	06/29/21 14:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/28/21 14:59	06/29/21 14:22	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/28/21 14:59	06/29/21 14:22	1
Total TPH	<49.9	U	49.9		mg/Kg		06/28/21 14:59	06/29/21 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*06/28/21 14:59*	*06/29/21 14:22*	*1*
o-Terphenyl	*118*		*70 - 130*	*06/28/21 14:59*	*06/29/21 14:22*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.4**		5.01		mg/Kg			06/29/21 17:18	1

Client Sample ID: PH02
Lab Sample ID: 890-874-3
Date Collected: 06/23/21 10:45
Matrix: Solid
Date Received: 06/25/21 09:52
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 07:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 07:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 07:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 07:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/28/21 15:03	06/29/21 07:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 07:41	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/28/21 15:03	06/29/21 07:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*06/28/21 15:03*	*06/29/21 07:41*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/28/21 15:03*	*06/29/21 07:41*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 14:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 14:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 14:42	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*06/28/21 14:59*	*06/29/21 14:42*	*1*
o-Terphenyl	*96*		*70 - 130*	*06/28/21 14:59*	*06/29/21 14:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5520**		50.2		mg/Kg			06/29/21 20:43	10

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH02A

Lab Sample ID: 890-874-4

Date Collected: 06/23/21 10:50
Matrix: Solid
Date Received: 06/25/21 09:52
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:01	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:01	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 08:01	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:01	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 08:01	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 08:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/28/21 15:03*	*06/29/21 08:01*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*06/28/21 15:03*	*06/29/21 08:01*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:09	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*06/28/21 11:13*	*06/28/21 19:09*	*1*
o-Terphenyl	*112*		*70 - 130*	*06/28/21 11:13*	*06/28/21 19:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**80.4**		4.96		mg/Kg			06/29/21 17:24	1

Client Sample ID: PH03

Lab Sample ID: 890-874-5

Date Collected: 06/23/21 11:30
Matrix: Solid
Date Received: 06/25/21 09:52
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 08:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 08:21	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 08:21	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 08:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/28/21 15:03*	*06/29/21 08:21*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/28/21 15:03*	*06/29/21 08:21*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH03

Date Collected: 06/23/21 11:30
Date Received: 06/25/21 09:52
Sample Depth: - 1

Lab Sample ID: 890-874-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:31	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*06/28/21 11:13*	*06/28/21 19:31*	*1*
o-Terphenyl	*83*		*70 - 130*	*06/28/21 11:13*	*06/28/21 19:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**21.6**		4.99		mg/Kg			06/29/21 17:38	1

Client Sample ID: PH03A

Date Collected: 06/23/21 11:40
Date Received: 06/25/21 09:52
Sample Depth: - 2

Lab Sample ID: 890-874-6
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 08:42	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 08:42	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 08:42	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		06/28/21 15:03	06/29/21 08:42	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/28/21 15:03	06/29/21 08:42	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		06/28/21 15:03	06/29/21 08:42	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		06/28/21 15:03	06/29/21 08:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*06/28/21 15:03*	*06/29/21 08:42*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/28/21 15:03*	*06/29/21 08:42*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 19:53	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 19:53	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 19:53	1
Total TPH	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*06/28/21 11:13*	*06/28/21 19:53*	*1*
o-Terphenyl	*101*		*70 - 130*	*06/28/21 11:13*	*06/28/21 19:53*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.6**		4.98		mg/Kg			06/29/21 17:43	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH04

Lab Sample ID: 890-874-7

Date Collected: 06/23/21 12:00
Matrix: Solid
Date Received: 06/25/21 09:52
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 09:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:02	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 09:02	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/28/21 15:03	06/29/21 09:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*06/28/21 15:03*	*06/29/21 09:02*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/28/21 15:03*	*06/29/21 09:02*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 20:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 20:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 20:14	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 20:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*06/28/21 11:13*	*06/28/21 20:14*	*1*
o-Terphenyl	*111*		*70 - 130*	*06/28/21 11:13*	*06/28/21 20:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**810**		5.04		mg/Kg			06/29/21 17:57	1

Client Sample ID: PH04A

Lab Sample ID: 890-874-8

Date Collected: 06/23/21 12:10
Matrix: Solid
Date Received: 06/25/21 09:52
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:23	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 09:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 09:23	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 09:23	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/28/21 15:03	06/29/21 09:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*06/28/21 15:03*	*06/29/21 09:23*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*06/28/21 15:03*	*06/29/21 09:23*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH04A

Lab Sample ID: 890-874-8
Matrix: Solid
Date Collected: 06/23/21 12:10
Date Received: 06/25/21 09:52
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		06/28/21 11:13	06/28/21 20:36	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/28/21 11:13	06/28/21 20:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/28/21 11:13	06/28/21 20:36	1
Total TPH	<49.9	U	49.9		mg/Kg		06/28/21 11:13	06/28/21 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*06/28/21 11:13*	*06/28/21 20:36*	*1*
o-Terphenyl	*85*		*70 - 130*	*06/28/21 11:13*	*06/28/21 20:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**64.4**		4.97		mg/Kg			06/29/21 18:02	1

Client Sample ID: PH05

Lab Sample ID: 890-874-9
Matrix: Solid
Date Collected: 06/23/21 12:50
Date Received: 06/25/21 09:52
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 09:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 09:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 09:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 09:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 09:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 09:43	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 09:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/28/21 15:03*	*06/29/21 09:43*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/28/21 15:03*	*06/29/21 09:43*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/28/21 11:13	06/28/21 20:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/28/21 11:13	06/28/21 20:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/28/21 11:13	06/28/21 20:58	1
Total TPH	<49.9	U	49.9		mg/Kg		06/28/21 11:13	06/28/21 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*06/28/21 11:13*	*06/28/21 20:58*	*1*
o-Terphenyl	*112*		*70 - 130*	*06/28/21 11:13*	*06/28/21 20:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1870**		24.9		mg/Kg			06/29/21 18:07	5

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH05A

Date Collected: 06/23/21 13:00
Date Received: 06/25/21 09:52
Sample Depth: - 2

Lab Sample ID: 890-874-10

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 10:04	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 10:04	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 10:04	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 10:04	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/28/21 15:03	06/29/21 10:04	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 10:04	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		06/28/21 15:03	06/29/21 10:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*06/28/21 15:03*	*06/29/21 10:04*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/28/21 15:03*	*06/29/21 10:04*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 21:20	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 21:20	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 21:20	1
Total TPH	<49.8	U	49.8		mg/Kg		06/28/21 11:13	06/28/21 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*06/28/21 11:13*	*06/28/21 21:20*	*1*
o-Terphenyl	*97*		*70 - 130*	*06/28/21 11:13*	*06/28/21 21:20*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.7**		5.04		mg/Kg			06/29/21 20:48	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-874-1	PH01	110	95
890-874-2	PH01A	108	95
890-874-3	PH02	116	93
890-874-4	PH02A	110	98
890-874-5	PH03	113	94
890-874-6	PH03A	124	93
890-874-7	PH04	106	94
890-874-8	PH04A	106	98
890-874-9	PH05	110	97
890-874-10	PH05A	108	94
LCS 880-4710/1-A	Lab Control Sample	100	91
LCSD 880-4710/2-A	Lab Control Sample Dup	97	91
MB 880-4688/5-A	Method Blank	111	92
MB 880-4710/5-A	Method Blank	112	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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-874-1	PH01	103	103
890-874-1 MS	PH01	108	100
890-874-1 MSD	PH01	96	86
890-874-2	PH01A	117	118
890-874-3	PH02	94	96
890-874-4	PH02A	104	112
890-874-5	PH03	82	83
890-874-6	PH03A	99	101
890-874-7	PH04	104	111
890-874-8	PH04A	81	85
890-874-9	PH05	105	112
890-874-10	PH05A	98	97
LCS 880-4687/2-A	Lab Control Sample	99	96
LCS 880-4709/2-A	Lab Control Sample	100	97
LCSD 880-4687/3-A	Lab Control Sample Dup	96	97
LCSD 880-4709/3-A	Lab Control Sample Dup	100	96
MB 880-4687/1-A	Method Blank	87	94
MB 880-4709/1-A	Method Blank	93	100

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4688/5-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4688

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*06/28/21 11:30*	*06/28/21 14:45*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/28/21 11:30*	*06/28/21 14:45*	*1*

Lab Sample ID: MB 880-4710/5-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4710

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/28/21 15:03	06/29/21 02:19	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/28/21 15:03	06/29/21 02:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/28/21 15:03*	*06/29/21 02:19*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/28/21 15:03*	*06/29/21 02:19*	*1*

Lab Sample ID: LCS 880-4710/1-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4710

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08844		mg/Kg		88	70 - 130		
Toluene			0.100	0.1060		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.1106		mg/Kg		111	70 - 130		
m-Xylene & p-Xylene			0.200	0.2288		mg/Kg		114	70 - 130		
o-Xylene			0.100	0.1116		mg/Kg		112	70 - 130		

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

QC Sample Results

Client: WSP USA Inc. Job ID: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

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

Lab Sample ID: LCSD 880-4710/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4689 **Prep Batch: 4710**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08999		mg/Kg		90	70 - 130	2	35
Toluene			0.100	0.1087		mg/Kg		109	70 - 130	2	35
Ethylbenzene			0.100	0.1115		mg/Kg		112	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2304		mg/Kg		115	70 - 130	1	35
o-Xylene			0.100	0.1120		mg/Kg		112	70 - 130	0	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

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

Lab Sample ID: MB 880-4687/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4696 **Prep Batch: 4687**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 12:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 12:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 12:31	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 11:13	06/28/21 12:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*06/28/21 11:13*	*06/28/21 12:31*	*1*
o-Terphenyl	*94*		*70 - 130*	*06/28/21 11:13*	*06/28/21 12:31*	*1*

Lab Sample ID: LCS 880-4687/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4696 **Prep Batch: 4687**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	852.6		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	947.8		mg/Kg		95	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: LCSD 880-4687/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4696 **Prep Batch: 4687**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	815.9		mg/Kg		82	70 - 130	4	20

QC Sample Results

Client: WSP USA Inc. Job ID: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

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

Lab Sample ID: LCSD 880-4687/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4696 **Prep Batch: 4687**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	948.3		mg/Kg		95	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: MB 880-4709/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4725 **Prep Batch: 4709**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*06/28/21 14:59*	*06/29/21 12:16*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/28/21 14:59*	*06/29/21 12:16*	*1*

Lab Sample ID: LCS 880-4709/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4725 **Prep Batch: 4709**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	949.3		mg/Kg		95	70 - 130
Diesel Range Organics (Over C10-C28)			1000	933.8		mg/Kg		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: LCSD 880-4709/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4725 **Prep Batch: 4709**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	935.9		mg/Kg		94	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	919.2		mg/Kg		92	70 - 130	2	20

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

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

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

Lab Sample ID: LCSD 880-4709/3-A
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4709

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: 890-874-1 MS
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 4709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	999	1133		mg/Kg		113	70 - 130
Diesel Range Organics (Over C10-C28)	<49.7	U	999	1164		mg/Kg		117	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

Lab Sample ID: 890-874-1 MSD
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 4709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	997	1010		mg/Kg		101	70 - 130	11	20
Diesel Range Organics (Over C10-C28)	<49.7	U	997	1013		mg/Kg		102	70 - 130	14	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*96*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4676/1-A
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/29/21 16:15	1

Lab Sample ID: LCS 880-4676/2-A
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride			250	234.8		mg/Kg		94	90 - 110

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-4676/3-A
Matrix: Solid
Analysis Batch: 4732

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	234.7		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-874-4 MS
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: PH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	80.4		249	333.2		mg/Kg		102	90 - 110		

Lab Sample ID: 890-874-4 MSD
Matrix: Solid
Analysis Batch: 4732

Client Sample ID: PH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	80.4		249	335.9		mg/Kg		103	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

GC VOA

Prep Batch: 4688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-4688/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 4689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-1	PH01	Total/NA	Solid	8021B	4710
890-874-2	PH01A	Total/NA	Solid	8021B	4710
890-874-3	PH02	Total/NA	Solid	8021B	4710
890-874-4	PH02A	Total/NA	Solid	8021B	4710
890-874-5	PH03	Total/NA	Solid	8021B	4710
890-874-6	PH03A	Total/NA	Solid	8021B	4710
890-874-7	PH04	Total/NA	Solid	8021B	4710
890-874-8	PH04A	Total/NA	Solid	8021B	4710
890-874-9	PH05	Total/NA	Solid	8021B	4710
890-874-10	PH05A	Total/NA	Solid	8021B	4710
MB 880-4688/5-A	Method Blank	Total/NA	Solid	8021B	4688
MB 880-4710/5-A	Method Blank	Total/NA	Solid	8021B	4710
LCS 880-4710/1-A	Lab Control Sample	Total/NA	Solid	8021B	4710
LCSD 880-4710/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4710

Prep Batch: 4710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-1	PH01	Total/NA	Solid	5035	
890-874-2	PH01A	Total/NA	Solid	5035	
890-874-3	PH02	Total/NA	Solid	5035	
890-874-4	PH02A	Total/NA	Solid	5035	
890-874-5	PH03	Total/NA	Solid	5035	
890-874-6	PH03A	Total/NA	Solid	5035	
890-874-7	PH04	Total/NA	Solid	5035	
890-874-8	PH04A	Total/NA	Solid	5035	
890-874-9	PH05	Total/NA	Solid	5035	
890-874-10	PH05A	Total/NA	Solid	5035	
MB 880-4710/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4710/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4710/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 4687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-4	PH02A	Total/NA	Solid	8015NM Prep	
890-874-5	PH03	Total/NA	Solid	8015NM Prep	
890-874-6	PH03A	Total/NA	Solid	8015NM Prep	
890-874-7	PH04	Total/NA	Solid	8015NM Prep	
890-874-8	PH04A	Total/NA	Solid	8015NM Prep	
890-874-9	PH05	Total/NA	Solid	8015NM Prep	
890-874-10	PH05A	Total/NA	Solid	8015NM Prep	
MB 880-4687/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4687/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4687/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

GC Semi VOA

Analysis Batch: 4696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-4	PH02A	Total/NA	Solid	8015B NM	4687
890-874-5	PH03	Total/NA	Solid	8015B NM	4687
890-874-6	PH03A	Total/NA	Solid	8015B NM	4687
890-874-7	PH04	Total/NA	Solid	8015B NM	4687
890-874-8	PH04A	Total/NA	Solid	8015B NM	4687
890-874-9	PH05	Total/NA	Solid	8015B NM	4687
890-874-10	PH05A	Total/NA	Solid	8015B NM	4687
MB 880-4687/1-A	Method Blank	Total/NA	Solid	8015B NM	4687
LCS 880-4687/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4687
LCSD 880-4687/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4687

Prep Batch: 4709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-1	PH01	Total/NA	Solid	8015NM Prep	
890-874-2	PH01A	Total/NA	Solid	8015NM Prep	
890-874-3	PH02	Total/NA	Solid	8015NM Prep	
MB 880-4709/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4709/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-874-1 MS	PH01	Total/NA	Solid	8015NM Prep	
890-874-1 MSD	PH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 4725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-1	PH01	Total/NA	Solid	8015B NM	4709
890-874-2	PH01A	Total/NA	Solid	8015B NM	4709
890-874-3	PH02	Total/NA	Solid	8015B NM	4709
MB 880-4709/1-A	Method Blank	Total/NA	Solid	8015B NM	4709
LCS 880-4709/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4709
LCSD 880-4709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4709
890-874-1 MS	PH01	Total/NA	Solid	8015B NM	4709
890-874-1 MSD	PH01	Total/NA	Solid	8015B NM	4709

HPLC/IC

Leach Batch: 4676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-1	PH01	Soluble	Solid	DI Leach	
890-874-2	PH01A	Soluble	Solid	DI Leach	
890-874-3	PH02	Soluble	Solid	DI Leach	
890-874-4	PH02A	Soluble	Solid	DI Leach	
890-874-5	PH03	Soluble	Solid	DI Leach	
890-874-6	PH03A	Soluble	Solid	DI Leach	
890-874-7	PH04	Soluble	Solid	DI Leach	
890-874-8	PH04A	Soluble	Solid	DI Leach	
890-874-9	PH05	Soluble	Solid	DI Leach	
890-874-10	PH05A	Soluble	Solid	DI Leach	
MB 880-4676/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4676/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4676/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-874-4 MS	PH02A	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

HPLC/IC (Continued)

Leach Batch: 4676 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-4 MSD	PH02A	Soluble	Solid	DI Leach	

Analysis Batch: 4732

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-874-1	PH01	Soluble	Solid	300.0	4676
890-874-2	PH01A	Soluble	Solid	300.0	4676
890-874-3	PH02	Soluble	Solid	300.0	4676
890-874-4	PH02A	Soluble	Solid	300.0	4676
890-874-5	PH03	Soluble	Solid	300.0	4676
890-874-6	PH03A	Soluble	Solid	300.0	4676
890-874-7	PH04	Soluble	Solid	300.0	4676
890-874-8	PH04A	Soluble	Solid	300.0	4676
890-874-9	PH05	Soluble	Solid	300.0	4676
890-874-10	PH05A	Soluble	Solid	300.0	4676
MB 880-4676/1-A	Method Blank	Soluble	Solid	300.0	4676
LCS 880-4676/2-A	Lab Control Sample	Soluble	Solid	300.0	4676
LCSD 880-4676/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4676
890-874-4 MS	PH02A	Soluble	Solid	300.0	4676
890-874-4 MSD	PH02A	Soluble	Solid	300.0	4676

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH01

Lab Sample ID: 890-874-1

Date Collected: 06/23/21 10:15
Matrix: Solid
Date Received: 06/25/21 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 05:31	MR	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/28/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 13:19	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:14	CH	XEN MID

Client Sample ID: PH01A

Lab Sample ID: 890-874-2

Date Collected: 06/23/21 10:20
Matrix: Solid
Date Received: 06/25/21 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 05:51	MR	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/28/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 14:22	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:18	CH	XEN MID

Client Sample ID: PH02

Lab Sample ID: 890-874-3

Date Collected: 06/23/21 10:45
Matrix: Solid
Date Received: 06/25/21 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 07:41	MR	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/28/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 14:42	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		10	4732	06/29/21 20:43	CH	XEN MID

Client Sample ID: PH02A

Lab Sample ID: 890-874-4

Date Collected: 06/23/21 10:50
Matrix: Solid
Date Received: 06/25/21 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 08:01	MR	XEN MID
Total/NA	Prep	8015NM Prep			4687	06/28/21 11:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4696	06/28/21 19:09	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:24	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Client Sample ID: PH03
Date Collected: 06/23/21 11:30
Date Received: 06/25/21 09:52

Lab Sample ID: 890-874-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 08:21	MR	XEN MID
Total/NA	Prep	8015NM Prep			4687	06/28/21 11:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4696	06/28/21 19:31	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:38	CH	XEN MID

Client Sample ID: PH03A
Date Collected: 06/23/21 11:40
Date Received: 06/25/21 09:52

Lab Sample ID: 890-874-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 08:42	MR	XEN MID
Total/NA	Prep	8015NM Prep			4687	06/28/21 11:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4696	06/28/21 19:53	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:43	CH	XEN MID

Client Sample ID: PH04
Date Collected: 06/23/21 12:00
Date Received: 06/25/21 09:52

Lab Sample ID: 890-874-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 09:02	MR	XEN MID
Total/NA	Prep	8015NM Prep			4687	06/28/21 11:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4696	06/28/21 20:14	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 17:57	CH	XEN MID

Client Sample ID: PH04A
Date Collected: 06/23/21 12:10
Date Received: 06/25/21 09:52

Lab Sample ID: 890-874-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 09:23	MR	XEN MID
Total/NA	Prep	8015NM Prep			4687	06/28/21 11:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4696	06/28/21 20:36	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 18:02	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Client Sample ID: PH05 Lab Sample ID: 890-874-9

Date Collected: 06/23/21 12:50 **Matrix: Solid**
Date Received: 06/25/21 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 09:43	MR	XEN MID
Total/NA	Prep	8015NM Prep			4687	06/28/21 11:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4696	06/28/21 20:58	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		5	4732	06/29/21 18:07	CH	XEN MID

Client Sample ID: PH05A Lab Sample ID: 890-874-10

Date Collected: 06/23/21 13:00 **Matrix: Solid**
Date Received: 06/25/21 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4710	06/28/21 15:03	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/29/21 10:04	MR	XEN MID
Total/NA	Prep	8015NM Prep			4687	06/28/21 11:13	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4696	06/28/21 21:20	AM	XEN MID
Soluble	Leach	DI Leach			4676	06/28/21 10:15	CH	XEN MID
Soluble	Analysis	300.0		1	4732	06/29/21 20:48	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: 890-874-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

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	06-30-21

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

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: Row 4 Booster Pump

Job ID: 890-874-1
SDG: 31403236.005.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-874-1	PH01	Solid	06/23/21 10:15	06/25/21 09:52	- 1
890-874-2	PH01A	Solid	06/23/21 10:20	06/25/21 09:52	- 2
890-874-3	PH02	Solid	06/23/21 10:45	06/25/21 09:52	- 1
890-874-4	PH02A	Solid	06/23/21 10:50	06/25/21 09:52	- 2
890-874-5	PH03	Solid	06/23/21 11:30	06/25/21 09:52	- 1
890-874-6	PH03A	Solid	06/23/21 11:40	06/25/21 09:52	- 2
890-874-7	PH04	Solid	06/23/21 12:00	06/25/21 09:52	- 1
890-874-8	PH04A	Solid	06/23/21 12:10	06/25/21 09:52	- 2
890-874-9	PH05	Solid	06/23/21 12:50	06/25/21 09:52	- 1
890-874-10	PH05A	Solid	06/23/21 13:00	06/25/21 09:52	- 2

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littrell
Company Name:	LT Environmental, Inc., Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	432.236.3849	Email:	bbelill@ltenv.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:	ROW 4 Booster Pump	Turn Around	
Project Number:	31403236.005.0129	Routine	☐
P.O. Number:	nAPP2111644292	Rush: ~~Same Day~~	
Sampler's Name:	Benjamin Belill	Due Date: ~~24 HR~~ 3 DAY	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.0 / 2.8	Thermometer ID	T-NM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	S	6/23/21	1015	1'	1	↓	X	X
PH01A			1020	2'				
PH02			1045	1'				
PH02A			1050	2'				
PH03			1130	1'				
PH03A			1140	2'				
PH04			1200	1'				
PH04A			1210	2'				
PH05			1250	1'				
PH05A	↓	↓	1300	2'	↓	↓	↓	↓

890-874 Chain of Custody

Work Order Notes

CC: 1084311001
API: 3001521095

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 B.J. Belill		6/25/21 0935	2	N. Otto	6/25/21 9:52
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: 890-279 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-874-1
Address: 1211 W Florida Ave	Due Date Requested: 6/30/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Row 4 Booster Pump	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 (890-874-1)	6/23/21	10 15 Mountain		Solid			X	X	X	1	
PH01A (890-874-2)	6/23/21	10 20 Mountain		Solid			X	X	X	1	
PH02 (890-874-3)	6/23/21	10 45 Mountain		Solid			X	X	X	1	
PH02A (890-874-4)	6/23/21	10 50 Mountain		Solid			X	X	X	1	
PH03 (890-874-5)	6/23/21	11 30 Mountain		Solid			X	X	X	1	
PH03A (890-874-6)	6/23/21	11 40 Mountain		Solid			X	X	X	1	
PH04 (890-874-7)	6/23/21	12 00 Mountain		Solid			X	X	X	1	
PH04A (890-874-8)	6/23/21	12 10 Mountain		Solid			X	X	X	1	
PH05 (890-874-9)	6/23/21	12 50 Mountain		Solid			X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time:	Company	Received by	Date/Time:	Company
1	Cloe Cuch 10.25.21				6-28-21 9:00 a.m	
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		

Ver 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-874-1
SDG Number: 31403236.005.0129

Login Number: 874
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: 890-874-1
SDG Number: 31403236.005.0129

Login Number: 874
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/28/21 09:16 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

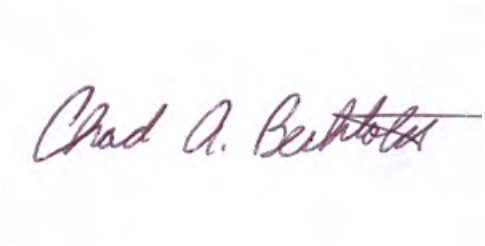
Job Number: 890-882-1

SDG Number: 31403236.006.129

Job Description: Row 4 Booster

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

Attention: Dan Moir



Approved for release.
Chad Bechtold
Project Manager
7/9/2021 6:23 PM

Designee for
Jessica Kramer, Project Manager
1211 W. Florida Ave, Midland, TX, 79701
jessica.kramer@eurofinset.com
07/09/2021
Revision: 1

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

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

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

Client Sample Result Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster

Job ID: 890-882-1
SDG: 31403236.006.129

Lab Sample ID:	890-882-1	890-882-2	890-882-3	890-882-4	890-882-5
Client Sample ID:	FS09	FS10	FS11	FS12	FS13
Depth:	3.5	3.5	3.5	3.5	3.5
Matrix:	Solid	Solid	Solid	Solid	Solid
Date Collected:	06/30/2021 13:48	06/30/2021 13:25	06/30/2021 13:23	06/30/2021 13:18	06/30/2021 13:20

Method: 8021B - Volatile Organic Compounds (GC)

Prepared:	07/01/2021 10:07		07/01/2021 10:07		07/01/2021 10:07		07/01/2021 10:07		07/01/2021 10:07	
Analyzed:	07/02/2021 16:21		07/02/2021 16:41		07/02/2021 17:01		07/02/2021 17:22		07/02/2021 17:42	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00200 U	0.00200	<0.00202 U	0.00202	<0.00201 U	0.00201
Toluene		<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00200 U	0.00200	<0.00202 U	0.00202	<0.00201 U	0.00201
Ethylbenzene		<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00200 U	0.00200	<0.00202 U	0.00202	<0.00201 U	0.00201
m-Xylene & p-Xylene		<0.00399 U	0.00399	<0.00398 U	0.00398	<0.00401 U	0.00401	<0.00403 U	0.00403	<0.00402 U	0.00402
o-Xylene		<0.00200 U	0.00200	<0.00199 U	0.00199	<0.00200 U	0.00200	<0.00202 U	0.00202	<0.00201 U	0.00201
Xylenes, Total		<0.00399 U	0.00399	<0.00398 U	0.00398	<0.00401 U	0.00401	<0.00403 U	0.00403	<0.00402 U	0.00402
Total BTEX		<0.00399 U	0.00399	<0.00398 U	0.00398	<0.00401 U	0.00401	<0.00403 U	0.00403	<0.00402 U	0.00402

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

Prepared:	07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59	
Analyzed:	07/01/2021 22:16		07/01/2021 23:19		07/01/2021 23:41		07/02/2021 00:02		07/02/2021 00:23	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<49.7 U	49.7	<49.9 U	49.9	<50.0 U	50.0	<49.8 U	49.8	<49.8 U	49.8
Diesel Range Organics (Over C10-C28)		<49.7 U	49.7	<49.9 U	49.9	<50.0 U	50.0	<49.8 U	49.8	<49.8 U	49.8
Oil Range Organics (Over C28-C36)		<49.7 U	49.7	<49.9 U	49.9	<50.0 U	50.0	<49.8 U	49.8	<49.8 U	49.8
Total TPH		<49.7 U	49.7	<49.9 U	49.9	<50.0 U	50.0	<49.8 U	49.8	<49.8 U	49.8

Method: 300.0 - Anions, Ion Chromatography - Soluble

Prepared:										
Analyzed:	07/07/2021 09:35		07/07/2021 09:50		07/07/2021 09:55		07/07/2021 10:00		07/09/2021 15:01	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		**120 F1**	4.98	**69.0**	5.04	**41.4**	5.05	**70.5**	4.98	**49.9**	5.00

Client Sample Result Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster

Job ID: 890-882-1
SDG: 31403236.006.129

Lab Sample ID:	890-882-6	890-882-7	890-882-8	890-882-9	890-882-10
Client Sample ID:	FS14	FS15	FS16	FS17	FS18
Depth:	3.5	3.5	3.5	3.5	2
Matrix:	Solid	Solid	Solid	Solid	Solid
Date Collected:	06/30/2021 13:22	06/30/2021 12:01	06/30/2021 12:00	06/30/2021 11:59	06/30/2021 11:58

Method: 8021B - Volatile Organic Compounds (GC)

Prepared:	07/01/2021 10:07		07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44	
Analyzed:	07/02/2021 18:03		07/02/2021 21:24		07/02/2021 21:45		07/02/2021 22:05		07/02/2021 22:25	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00202 U	0.00202	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00202 U	0.00202
Toluene		<0.00202 U	0.00202	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00202 U	0.00202
Ethylbenzene		<0.00202 U	0.00202	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00202 U	0.00202
m-Xylene & p-Xylene		<0.00403 U	0.00403	<0.00401 U	0.00401	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00403 U	0.00403
o-Xylene		<0.00202 U	0.00202	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00202 U	0.00202
Xylenes, Total		<0.00403 U	0.00403	<0.00401 U	0.00401	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00403 U	0.00403
Total BTEX		<0.00403 U	0.00403	<0.00401 U	0.00401	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00403 U	0.00403

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

Prepared:	07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59	
Analyzed:	07/02/2021 00:44		07/02/2021 01:05		07/02/2021 01:26		07/02/2021 01:47		07/02/2021 02:08	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<49.7 U	49.7	<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9
Diesel Range Organics (Over C10-C28)		<49.7 U	49.7	<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9
OII Range Organics (Over C28-C36)		<49.7 U	49.7	<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9
Total TPH		<49.7 U	49.7	<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9

Method: 300.0 - Anions, Ion Chromatography - Soluble

Prepared:										
Analyzed:	07/07/2021 10:19		07/07/2021 10:24		07/07/2021 10:29		07/07/2021 10:34		07/07/2021 10:39	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		**66.6**	4.95	**129**	4.96	**507**	4.99	**80.2**	4.97	**158**	4.98

Client Sample Result Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster

Job ID: 890-882-1
SDG: 31403236.006.129

Lab Sample ID:	890-882-11	890-882-12	890-882-13	890-882-14	890-882-15
Client Sample ID:	FS19	FS20	FS21	FS22	FS23
Depth:	2	3.5	3.5	3.5	3.5
Matrix:	Solid	Solid	Solid	Solid	Solid
Date Collected:	06/30/2021 11:39	06/30/2021 11:41	06/30/2021 11:42	06/30/2021 11:44	06/30/2021 11:30

Method: 8021B - Volatile Organic Compounds (GC)

	Prepared:	07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44	
	Analyzed:	07/02/2021 22:46		07/02/2021 23:06		07/02/2021 23:27		07/02/2021 23:47		07/03/2021 00:08	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00202 U	0.00202	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200
Toluene		<0.00202 U	0.00202	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200
Ethylbenzene		<0.00202 U	0.00202	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200
m-Xylene & p-Xylene		<0.00404 U	0.00404	<0.00402 U	0.00402	<0.00401 U	0.00401	<0.00402 U	0.00402	<0.00400 U	0.00400
o-Xylene		<0.00202 U	0.00202	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00200 U	0.00200
Xylenes, Total		<0.00404 U	0.00404	<0.00402 U	0.00402	<0.00401 U	0.00401	<0.00402 U	0.00402	<0.00400 U	0.00400
Total BTEX		<0.00404 U	0.00404	<0.00402 U	0.00402	<0.00401 U	0.00401	<0.00402 U	0.00402	<0.00400 U	0.00400

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

	Prepared:	07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59	
	Analyzed:	07/02/2021 02:50		07/02/2021 03:12		07/02/2021 03:33		07/02/2021 03:54		07/02/2021 04:15	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0
Diesel Range Organics (Over C10-C28)		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0
OIl Range Organics (Over C28-C36)		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0
Total TPH		<50.0 U	50.0	<50.0 U	50.0	<49.9 U	49.9	<50.0 U	50.0	<50.0 U	50.0

Method: 300.0 - Anions, Ion Chromatography - Soluble

	Prepared:										
	Analyzed:	07/07/2021 10:44		07/07/2021 10:58		07/07/2021 11:03		07/07/2021 11:18		07/07/2021 11:23	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		**19.1 F1**	5.05	**52.4**	4.98	**121**	4.95	**92.4**	4.98	**127**	5.00

Client Sample Result Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster

Job ID: 890-882-1
SDG: 31403236.006.129

Lab Sample ID:	890-882-16	890-882-17	890-882-18	890-882-19	890-882-20
Client Sample ID:	FS24	FS25	FS26	FS27	FS28
Depth:	3.5	3.5	2	2	3.5
Matrix:	Solid	Solid	Solid	Solid	Solid
Date Collected:	06/30/2021 11:27	06/30/2021 11:25	06/30/2021 11:23	06/30/2021 11:05	06/30/2021 11:07

Method: 8021B - Volatile Organic Compounds (GC)

Prepared:	07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44	
Analyzed:	07/03/2021 00:28		07/03/2021 01:49		07/03/2021 02:10		07/03/2021 02:30		07/03/2021 02:51	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200
Toluene		<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200
Ethylbenzene		<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200
m-Xylene & p-Xylene		<0.00399 U	0.00399	<0.00401 U	0.00401	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00401 U	0.00401
o-Xylene		<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200	<0.00200 U	0.00200
Xylenes, Total		<0.00399 U	0.00399	<0.00401 U	0.00401	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00401 U	0.00401
Total BTEX		<0.00399 U	0.00399	<0.00401 U	0.00401	<0.00399 U	0.00399	<0.00399 U	0.00399	<0.00401 U	0.00401

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

Prepared:	07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59		07/01/2021 14:59	
Analyzed:	07/02/2021 04:36		07/02/2021 04:57		07/02/2021 05:19		07/02/2021 05:40		07/02/2021 06:01	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8
Diesel Range Organics (Over C10-C28)		<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8
OII Range Organics (Over C28-C36)		<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8
Total TPH		<49.8 U	49.8	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8

Method: 300.0 - Anions, Ion Chromatography - Soluble

Prepared:										
Analyzed:	07/07/2021 11:28		07/07/2021 11:32		07/07/2021 11:37		07/07/2021 11:42		07/07/2021 11:47	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		**103**	5.04	**106**	5.02	**17.9**	4.98	**18.8**	4.99	**67.2**	5.05

Client Sample Result Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster

Job ID: 890-882-1
SDG: 31403236.006.129

Lab Sample ID:	890-882-21	890-882-22	890-882-23	890-882-24
Client Sample ID:	FS29	FS30	FS31	FS32
Depth:	3.5	3.5	2	2
Matrix:	Solid	Solid	Solid	Solid
Date Collected:	06/30/2021 11:09	06/30/2021 11:11	06/30/2021 10:25	06/30/2021 10:27

Method: 8021B - Volatile Organic Compounds (GC)

	Prepared:	07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44		07/01/2021 15:44	
	Analyzed:	07/03/2021 03:11		07/03/2021 03:31		07/03/2021 03:52		07/03/2021 04:12	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene		<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00202 U	0.00202	<0.00202 U	0.00202
Toluene		<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00202 U	0.00202	<0.00202 U	0.00202
Ethylbenzene		<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00202 U	0.00202	<0.00202 U	0.00202
m-Xylene & p-Xylene		<0.00399 U	0.00399	<0.00402 U	0.00402	<0.00404 U	0.00404	<0.00403 U	0.00403
o-Xylene		<0.00200 U	0.00200	<0.00201 U	0.00201	<0.00202 U	0.00202	<0.00202 U	0.00202
Xylenes, Total		<0.00399 U	0.00399	<0.00402 U	0.00402	<0.00404 U	0.00404	<0.00403 U	0.00403
Total BTEX		<0.00399 U	0.00399	<0.00402 U	0.00402	<0.00404 U	0.00404	<0.00403 U	0.00403

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

	Prepared:	07/02/2021 07:59		07/02/2021 07:59		07/01/2021 15:30		07/01/2021 15:30	
	Analyzed:	07/06/2021 13:29		07/06/2021 14:32		07/01/2021 20:10		07/01/2021 20:31	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10		<49.7 U	49.7	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8
Diesel Range Organics (Over C10-C28)		<49.7 U	49.7	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8
Oil Range Organics (Over C28-C36)		<49.7 U	49.7	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8
Total TPH		<49.7 U	49.7	<49.9 U	49.9	<49.9 U	49.9	<49.8 U	49.8

Method: 300.0 - Anions, Ion Chromatography - Soluble

	Prepared:								
	Analyzed:	07/02/2021 21:02		07/02/2021 21:07		07/02/2021 21:13		07/02/2021 21:18	
Analyte	**Unit/RL:**	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride		**48.5**	4.98	**46.1**	4.97	**26.7**	5.01	**81.7**	5.03

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1213-1
Laboratory Sample Delivery Group: 31403236.005.0129
Client Project/Site: Row 4 Booster Pump

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

Attn: Dan Moir

JKramer

Authorized for release by:
9/3/2021 6:28:26 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: Row 4 Booster Pump

Laboratory Job ID: 890-1213-1
SDG: 31403236.005.0129

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1213-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

Job ID: 890-1213-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1213-1

Receipt
The samples were received on 9/2/2021 1:47 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-7477 and analytical batch 880-7486 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

Client Sample ID: SW01

Lab Sample ID: 890-1213-1

Date Collected: 09/02/21 09:40
Date Received: 09/02/21 13:47
Sample Depth: 0 - 3.5

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		09/03/21 09:33	09/03/21 14:15	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 14:15	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 14:15	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		09/03/21 09:33	09/03/21 14:15	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 14:15	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		09/03/21 09:33	09/03/21 14:15	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		09/03/21 09:33	09/03/21 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*09/03/21 09:33*	*09/03/21 14:15*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*09/03/21 09:33*	*09/03/21 14:15*	*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		09/03/21 11:10	09/03/21 14:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/03/21 11:10	09/03/21 14:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/03/21 11:10	09/03/21 14:05	1
Total TPH	<49.9	U	49.9		mg/Kg		09/03/21 11:10	09/03/21 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*09/03/21 11:10*	*09/03/21 14:05*	*1*
o-Terphenyl	*113*		*70 - 130*	*09/03/21 11:10*	*09/03/21 14:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**310**		5.03		mg/Kg			09/03/21 17:14	1

Client Sample ID: SW02

Lab Sample ID: 890-1213-2

Date Collected: 09/02/21 10:25
Date Received: 09/02/21 13:47
Sample Depth: 0 - 3.5

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 14:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 14:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 14:35	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		09/03/21 09:33	09/03/21 14:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 14:35	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		09/03/21 09:33	09/03/21 14:35	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		09/03/21 09:33	09/03/21 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*09/03/21 09:33*	*09/03/21 14:35*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*09/03/21 09:33*	*09/03/21 14:35*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

Client Sample ID: SW02

Date Collected: 09/02/21 10:25
Date Received: 09/02/21 13:47
Sample Depth: 0 - 3.5

Lab Sample ID: 890-1213-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		09/03/21 11:10	09/03/21 14:27	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/03/21 11:10	09/03/21 14:27	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/03/21 11:10	09/03/21 14:27	1
Total TPH	<49.8	U	49.8		mg/Kg		09/03/21 11:10	09/03/21 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*09/03/21 11:10*	*09/03/21 14:27*	*1*
o-Terphenyl	*106*		*70 - 130*	*09/03/21 11:10*	*09/03/21 14:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**91.9**		5.04		mg/Kg			09/03/21 17:20	1

Client Sample ID: SW03

Date Collected: 09/02/21 11:09
Date Received: 09/02/21 13:47
Sample Depth: 0 - 3.5

Lab Sample ID: 890-1213-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 14:56	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 14:56	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 14:56	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/03/21 09:33	09/03/21 14:56	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 14:56	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/03/21 09:33	09/03/21 14:56	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		09/03/21 09:33	09/03/21 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*09/03/21 09:33*	*09/03/21 14:56*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*09/03/21 09:33*	*09/03/21 14:56*	*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	**66.9**		49.9		mg/Kg		09/03/21 11:10	09/03/21 14:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		09/03/21 11:10	09/03/21 14:48	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		09/03/21 11:10	09/03/21 14:48	1
Total TPH	**66.9**		49.9		mg/Kg		09/03/21 11:10	09/03/21 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*09/03/21 11:10*	*09/03/21 14:48*	*1*
o-Terphenyl	*125*		*70 - 130*	*09/03/21 11:10*	*09/03/21 14:48*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**479**		5.05		mg/Kg			09/03/21 17:37	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

Client Sample ID: SW04

Date Collected: 09/02/21 11:47
Date Received: 09/02/21 13:47
Sample Depth: 0 - 3.5

Lab Sample ID: 890-1213-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 15:16	1
Toluene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 15:16	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 15:16	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		09/03/21 09:33	09/03/21 15:16	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		09/03/21 09:33	09/03/21 15:16	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		09/03/21 09:33	09/03/21 15:16	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		09/03/21 09:33	09/03/21 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*09/03/21 09:33*	*09/03/21 15:16*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*09/03/21 09:33*	*09/03/21 15:16*	*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		09/03/21 11:10	09/03/21 15:09	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/03/21 11:10	09/03/21 15:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		09/03/21 11:10	09/03/21 15:09	1
Total TPH	<49.8	U	49.8		mg/Kg		09/03/21 11:10	09/03/21 15:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*09/03/21 11:10*	*09/03/21 15:09*	*1*
o-Terphenyl	*111*		*70 - 130*	*09/03/21 11:10*	*09/03/21 15:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**390**		5.01		mg/Kg			09/03/21 17:42	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

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)
890-1211-A-1-A MS	Matrix Spike	101	108
890-1211-A-1-B MSD	Matrix Spike Duplicate	111	109
890-1213-1	SW01	117	98
890-1213-2	SW02	114	99
890-1213-3	SW03	120	99
890-1213-4	SW04	117	102
LCS 880-7477/1-A	Lab Control Sample	111	93
LCSD 880-7477/2-A	Lab Control Sample Dup	111	106
MB 880-7477/5-A	Method Blank	102	100

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)
890-1211-A-1-E MS	Matrix Spike	101	99
890-1211-A-1-F MSD	Matrix Spike Duplicate	103	100
890-1213-1	SW01	104	113
890-1213-2	SW02	98	106
890-1213-3	SW03	115	125
890-1213-4	SW04	103	111
LCS 880-7495/2-A	Lab Control Sample	121	121
LCSD 880-7495/3-A	Lab Control Sample Dup	121	119
MB 880-7495/1-A	Method Blank	105	117

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-7477/5-A
Matrix: Solid
Analysis Batch: 7486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 7477

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 12:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/03/21 09:33	09/03/21 12:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/03/21 09:33	09/03/21 12:52	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		09/03/21 09:33	09/03/21 12:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*09/03/21 09:33*	*09/03/21 12:52*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*09/03/21 09:33*	*09/03/21 12:52*	*1*

Lab Sample ID: LCS 880-7477/1-A
Matrix: Solid
Analysis Batch: 7486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 7477

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07447		mg/Kg		74	70 - 130		
Toluene			0.100	0.07554		mg/Kg		76	70 - 130		
Ethylbenzene			0.100	0.07775		mg/Kg		78	70 - 130		
m-Xylene & p-Xylene			0.200	0.1583		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.08045		mg/Kg		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-7477/2-A
Matrix: Solid
Analysis Batch: 7486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 7477

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08330		mg/Kg		83	70 - 130	11	35
Toluene			0.100	0.08122		mg/Kg		81	70 - 130	7	35
Ethylbenzene			0.100	0.08397		mg/Kg		84	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.1705		mg/Kg		85	70 - 130	7	35
o-Xylene			0.100	0.08705		mg/Kg		87	70 - 130	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-1211-A-1-A MS
Matrix: Solid
Analysis Batch: 7486

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 7477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U F1	0.100	0.04711	F1	mg/Kg		47	70 - 130		

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

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

Lab Sample ID: 890-1211-A-1-A MS
Matrix: Solid
Analysis Batch: 7486

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 7477

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00201	U F1	0.100	0.03113	F1	mg/Kg		31	70 - 130
Ethylbenzene	<0.00201	U F1	0.100	0.02073	F1	mg/Kg		21	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1	0.200	0.04030	F1	mg/Kg		20	70 - 130
o-Xylene	<0.00201	U F1	0.100	0.02125	F1	mg/Kg		21	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*

Lab Sample ID: 890-1211-A-1-B MSD
Matrix: Solid
Analysis Batch: 7486

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 7477

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.101	0.04123	F1	mg/Kg		41	70 - 130	13	35
Toluene	<0.00201	U F1	0.101	0.03176	F1	mg/Kg		31	70 - 130	2	35
Ethylbenzene	<0.00201	U F1	0.101	0.01699	F1	mg/Kg		17	70 - 130	20	35
m-Xylene & p-Xylene	<0.00402	U F1	0.202	0.03229	F1	mg/Kg		16	70 - 130	22	35
o-Xylene	<0.00201	U F1	0.101	0.01492	F1	mg/Kg		15	70 - 130	35	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*

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

Lab Sample ID: MB 880-7495/1-A
Matrix: Solid
Analysis Batch: 7482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 7495

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		09/03/21 11:10	09/03/21 11:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		09/03/21 11:10	09/03/21 11:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		09/03/21 11:10	09/03/21 11:16	1
Total TPH	<50.0	U	50.0	mg/Kg		09/03/21 11:10	09/03/21 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*09/03/21 11:10*	*09/03/21 11:16*	*1*
o-Terphenyl	*117*		*70 - 130*	*09/03/21 11:10*	*09/03/21 11:16*	*1*

Lab Sample ID: LCS 880-7495/2-A
Matrix: Solid
Analysis Batch: 7482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 7495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1025		mg/Kg		102	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

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

Lab Sample ID: LCS 880-7495/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7482 — **Prep Batch: 7495**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	1002		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*121*		*70 - 130*

Lab Sample ID: LCSD 880-7495/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7482 — **Prep Batch: 7495**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1020		mg/Kg		102	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	977.2		mg/Kg		98	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*121*		*70 - 130*
o-Terphenyl	*119*		*70 - 130*

Lab Sample ID: 890-1211-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7482 — **Prep Batch: 7495**

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	940.1		mg/Kg		93	70 - 130		
Diesel Range Organics (Over C10-C28)	50.7		995	924.2		mg/Kg		88	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*101*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Lab Sample ID: 890-1211-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 7482 — **Prep Batch: 7495**

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	974.1		mg/Kg		96	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	50.7		998	948.3		mg/Kg		90	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-7498/1-A
Matrix: Solid
Analysis Batch: 7500

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			09/03/21 16:29	1

Lab Sample ID: LCS 880-7498/2-A
Matrix: Solid
Analysis Batch: 7500

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	249.9		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-7498/3-A
Matrix: Solid
Analysis Batch: 7500

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	250.7		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-1211-A-1-H MS
Matrix: Solid
Analysis Batch: 7500

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	327		253	568.1		mg/Kg		95	90 - 110		

Lab Sample ID: 890-1211-A-1-I MSD
Matrix: Solid
Analysis Batch: 7500

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	327		253	568.8		mg/Kg		96	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

GC VOA

Prep Batch: 7477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1213-1	SW01	Total/NA	Solid	5035	
890-1213-2	SW02	Total/NA	Solid	5035	
890-1213-3	SW03	Total/NA	Solid	5035	
890-1213-4	SW04	Total/NA	Solid	5035	
MB 880-7477/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-7477/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-7477/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1211-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-1211-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 7486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1213-1	SW01	Total/NA	Solid	8021B	7477
890-1213-2	SW02	Total/NA	Solid	8021B	7477
890-1213-3	SW03	Total/NA	Solid	8021B	7477
890-1213-4	SW04	Total/NA	Solid	8021B	7477
MB 880-7477/5-A	Method Blank	Total/NA	Solid	8021B	7477
LCS 880-7477/1-A	Lab Control Sample	Total/NA	Solid	8021B	7477
LCSD 880-7477/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	7477
890-1211-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	7477
890-1211-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	7477

GC Semi VOA

Analysis Batch: 7482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1213-1	SW01	Total/NA	Solid	8015B NM	7495
890-1213-2	SW02	Total/NA	Solid	8015B NM	7495
890-1213-3	SW03	Total/NA	Solid	8015B NM	7495
890-1213-4	SW04	Total/NA	Solid	8015B NM	7495
MB 880-7495/1-A	Method Blank	Total/NA	Solid	8015B NM	7495
LCS 880-7495/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	7495
LCSD 880-7495/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	7495
890-1211-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	7495
890-1211-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	7495

Prep Batch: 7495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1213-1	SW01	Total/NA	Solid	8015NM Prep	
890-1213-2	SW02	Total/NA	Solid	8015NM Prep	
890-1213-3	SW03	Total/NA	Solid	8015NM Prep	
890-1213-4	SW04	Total/NA	Solid	8015NM Prep	
MB 880-7495/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-7495/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-7495/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1211-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1211-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc.
Project/Site: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

HPLC/IC

Leach Batch: 7498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1213-1	SW01	Soluble	Solid	DI Leach	
890-1213-2	SW02	Soluble	Solid	DI Leach	
890-1213-3	SW03	Soluble	Solid	DI Leach	
890-1213-4	SW04	Soluble	Solid	DI Leach	
MB 880-7498/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-7498/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-7498/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1211-A-1-H MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1211-A-1-I MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 7500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1213-1	SW01	Soluble	Solid	300.0	7498
890-1213-2	SW02	Soluble	Solid	300.0	7498
890-1213-3	SW03	Soluble	Solid	300.0	7498
890-1213-4	SW04	Soluble	Solid	300.0	7498
MB 880-7498/1-A	Method Blank	Soluble	Solid	300.0	7498
LCS 880-7498/2-A	Lab Control Sample	Soluble	Solid	300.0	7498
LCSD 880-7498/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	7498
890-1211-A-1-H MS	Matrix Spike	Soluble	Solid	300.0	7498
890-1211-A-1-I MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	7498

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1213-1
Project/Site: Row 4 Booster Pump SDG: 31403236.005.0129

Client Sample ID: SW01 Lab Sample ID: 890-1213-1

Date Collected: 09/02/21 09:40 **Matrix: Solid**
Date Received: 09/02/21 13:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7477	09/03/21 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	7486	09/03/21 14:15	KL	XEN MID
Total/NA	Prep	8015NM Prep			7495	09/03/21 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7482	09/03/21 14:05	AJ	XEN MID
Soluble	Leach	DI Leach			7498	09/03/21 11:32	SC	XEN MID
Soluble	Analysis	300.0		1	7500	09/03/21 17:14	SC	XEN MID

Client Sample ID: SW02 Lab Sample ID: 890-1213-2

Date Collected: 09/02/21 10:25 **Matrix: Solid**
Date Received: 09/02/21 13:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7477	09/03/21 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	7486	09/03/21 14:35	KL	XEN MID
Total/NA	Prep	8015NM Prep			7495	09/03/21 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7482	09/03/21 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			7498	09/03/21 11:32	SC	XEN MID
Soluble	Analysis	300.0		1	7500	09/03/21 17:20	SC	XEN MID

Client Sample ID: SW03 Lab Sample ID: 890-1213-3

Date Collected: 09/02/21 11:09 **Matrix: Solid**
Date Received: 09/02/21 13:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7477	09/03/21 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	7486	09/03/21 14:56	KL	XEN MID
Total/NA	Prep	8015NM Prep			7495	09/03/21 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7482	09/03/21 14:48	AJ	XEN MID
Soluble	Leach	DI Leach			7498	09/03/21 11:32	SC	XEN MID
Soluble	Analysis	300.0		1	7500	09/03/21 17:37	SC	XEN MID

Client Sample ID: SW04 Lab Sample ID: 890-1213-4

Date Collected: 09/02/21 11:47 **Matrix: Solid**
Date Received: 09/02/21 13:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			7477	09/03/21 09:33	KL	XEN MID
Total/NA	Analysis	8021B		1	7486	09/03/21 15:16	KL	XEN MID
Total/NA	Prep	8015NM Prep			7495	09/03/21 11:10	DM	XEN MID
Total/NA	Analysis	8015B NM		1	7482	09/03/21 15:09	AJ	XEN MID
Soluble	Leach	DI Leach			7498	09/03/21 11:32	SC	XEN MID
Soluble	Analysis	300.0		1	7500	09/03/21 17:42	SC	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.
Job ID: 890-1213-1
Project/Site: Row 4 Booster Pump
SDG: 31403236.005.0129

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: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

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: Row 4 Booster Pump

Job ID: 890-1213-1
SDG: 31403236.005.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1213-1	SW01	Solid	09/02/21 09:40	09/02/21 13:47	0 - 3.5
890-1213-2	SW02	Solid	09/02/21 10:25	09/02/21 13:47	0 - 3.5
890-1213-3	SW03	Solid	09/02/21 11:09	09/02/21 13:47	0 - 3.5
890-1213-4	SW04	Solid	09/02/21 11:47	09/02/21 13:47	0 - 3.5

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	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 ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Row 4 Booster Pump	Turn Around	
Project Number:	31403236.005.0129	Routine ☐	
P.O. Number:		Rush: 24 Hour	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4.0 / 3.9	Thermometer ID	TOM-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:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW01	S	9/2/2021	9:40	0-3.5'	1	X	X	X	Composite
SW02	S	9/2/2021	10:25	0-3.5'	1	X	X	X	Composite
SW03	S	9/2/2021	11:09	0-3.5'	1	X	X	X	Composite
SW04	S	9/2/2021	11:47	0-3.5'	1	X	X	X	Composite

ANALYSIS REQUEST

Work Order Notes

CC:1084311001
API: 30-015-21095
Incident Number:
nAPP2111644292

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	pbenner	Cece Cruz	9.2.21 1347			
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: 890-391 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 #: 890-1213-1
Address: 1211 W Florida Ave	Due Date Requested: 9/3/2021			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: Row 4 Booster Pump	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
			Preservation Code:								
SW01 (890-1213-1)	9/2/21	09 40 Mountain		Solid			X	X	X	1	
SW02 (890-1213-2)	9/2/21	10 25 Mountain		Solid			X	X	X	1	
SW03 (890-1213-3)	9/2/21	11 09 Mountain		Solid			X	X	X	1	
SW04 (890-1213-4)	9/2/21	11 47 Mountain		Solid			X	X	X	1	

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

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

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Clue Cerf 9.2.21		Xenco		9/3/21 10 45	Xenco
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. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 3.7/3.7

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1213-1
SDG Number: 31403236.005.0129

Login Number: 1213
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: 890-1213-1
SDG Number: 31403236.005.0129

Login Number: 1213
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Xenco, Midland
List Creation: 09/03/21 10:52 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	

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 74918

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 74918
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	Date of discovery: 04/12/2021. Initial C-141 received: 04/26/2021 Closure report received: 01/25/2022. That is approximately 270 days since last report filed. Failure to comply with NMAC 19.15.29, XTO could be subject to Civil Penalties for future violations. https://www.emnrd.nm.gov/ocd/wp-content/uploads/sites/6/Civil-Penalty-Calculation-Method-Version-2021-01.pdf	2/10/2022
chensley	The OCD has received and approved your closure report.	2/10/2022