

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	NAPP2201944299
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

Cause of Release

Incident ID	NAPP2201944299
District RP	
Facility ID	
Application ID	

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

Initial Response

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

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____ Signature: <u>Adrian Bales</u> email: _____	Title: _____ Date: _____ Telephone: _____
<u>OCD Only</u> Received by: <u>Ramona Marcus</u> Date: <u>3/2/2022</u>	

NAPP2201944299

Location:	Corral Canyon 5-32		
Spill Date:	1/5/2022		
Area 1			
Approximate Area =	4512.00	sq. ft.	
Average Saturation (or depth) of spill =	1.00	inches	
Average Porosity Factor =	0.03		
VOLUME OF LEAK			
Total Crude Oil =	0.00	bbls	
Total Produced Water =	17.01	bbls	
TOTAL VOLUME OF LEAK			
Total Crude Oil =	0.00	bbls	
Total Produced Water =	17.01	bbls	
TOTAL VOLUME RECOVERED			
Total Crude Oil =	0.00	bbls	
Total Produced Water =	15.00	bbls	

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

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

CONDITIONS

Action 73500

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 73500
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	3/2/2022

Incident ID	NAPP2201944299
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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>50-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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


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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2201944299
District RP	
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Adrian Baker Title: Environmental Coordinator
Signature:  Date: 03/28/2022
email: Adrian.Baker@exxonmobil.com Telephone: (432) 236-3808

OCD Only

Received by: _____ Date: _____

Incident ID	NAPP2201944299
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Closure

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

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

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

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

Printed Name: Adrian Baker Title: Environmental Coordinator
Signature: *Adrian Baker* Date: 03/28/2022
Email: Adrian.Baker@exxonmobil.com Telephone: (432) 236-3808

ODC Only

Received by: _____ Date: _____

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

Closure Approved by: *Jennifer Nobui* Date: 04/20/2022
Printed Name: Jennifer Nobui Title: Environmental Specialist A



WSP USA

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

March 28, 2022

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

**RE: Closure Request
Corral Canyon 5-32
Incident Number NAPP2201944299
Eddy County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Closure Request detailing site assessment and soil sampling activities at the Corral Canyon 5-32 (Site) in Unit A, Section 8, Township 25 South, Range 29 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacted soil following the release of frac fluid at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, XTO is submitting this Closure Request, describing site assessment activities that have occurred and requesting no further action (NFA) for Incident Number NAPP2201944299.

RELEASE BACKGROUND

On January 5, 2022, corrosion caused a Victaulic connection on a lay-flat line to fail, and resulted in the release of approximately 17.01 barrels (bbls) of frac fluid onto the surface of the well pad. A vacuum truck was immediately dispatched to remove all free-standing fluid. Approximately 15.0 bbls of frac fluid 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 January 19, 2022. The release was assigned Incident Number NAPP2201944299.

The frac fluid composition is produced water. Produced water is recycled through filtering and separation, then mixed in a blender with friction reducer and used as frac fluid during the well completion process. The safety data sheet (SDS) for friction reducer is provided as Attachment 1.

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 between 50-100 feet (below ground surface) bgs based on a recent soil boring drilled for determination of regional groundwater



depth. During July 2019, WSP installed a soil boring (C-04324) within 0.5 miles of the Site utilizing a truck-mounted hollow-stem auger rig. Soil boring C-04324 was drilled to a depth of 65 feet bgs. A WSP geologist logged and described soils continuously. Groundwater was encountered during drilling activities at 60 feet bgs. The Well Record and Log is included in Attachment 2. The location of the borehole is approximately 837 feet northeast of the site and is depicted on Figure 1. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips.

The nearest continuously flowing water or significant watercourse to the Site is a dry wash located approximately 508 feet north to the Site. The Site is located greater than 200 feet of a lakebed and 300 feet from a wetland. The Site is not located within a 100-year floodplain. The Site is located greater than 300 feet from an occupied residence, school, hospital, institution, or church. The Site is located greater than 1,000 feet to a freshwater well or spring. The Site is not underlain by unstable geology (medium karst potential designation area). Site receptors are identified in 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: 10,000 mg/kg

SITE ASSESSMENT, SOIL SAMPLING ACTIVITIES, AND ANALYTICAL RESULTS

On February 17, 2022, WSP personnel were at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected seven preliminary assessment soil samples (SS01 through SS07) within and around the release extent from a depth of 0.5 feet bgs to assess for the presence or absence of soil impacts at the ground surface. Soil was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The 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 shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to



Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS07 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the laboratory analytical results no impacted soil was identified; however, additional assessment activities were scheduled to further confirm the absence of impacted soil.

On March 11, 2022, WSP personnel returned to the Site to oversee additional soil assessment activities. Three boreholes (BH01 through BH03) were advanced via hand-auger to a depth of 2 feet bgs within the release extent. Boreholes BH01 through BH03 were advanced at SS01 through SS03 preliminary soil sample locations, respectively. Two discrete delineation soil samples were collected from each borehole at depths of 1-foot and 2 feet bgs to confirm the absence of impacted soil. Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for each borehole were documented on a lithologic/soil sampling log, which are included as Attachment 3. The delineation soil samples were collected, handled, and analyzed as described above at Eurofins in Carlsbad, New Mexico. The delineation soil sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visits. Photographs are included in Attachment 4.

Laboratory analytical results for the delineation samples collected from boreholes BH01 through BH03 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1. The complete laboratory analytical reports are included as Attachment 5.

CLOSURE REQUEST

Preliminary soil samples SS01 through SS07 and delineation samples from boreholes BH01 through BH03 were collected within and around the release extent from depths ranging from 0.5 feet to 2 feet bgs, to assess for the presence or absence of impacted soil resulting from the January 5, 2022, frac fluid release. Laboratory analytical results for all soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria, no impacted soil was identified, and no soil excavation was warranted as a result of the frac fluid release. XTO requests NFA for Incident Number NAPP2201944299.



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

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads "Hadlie Green".

Hadlie Green
Assistant Consultant, Geologist

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

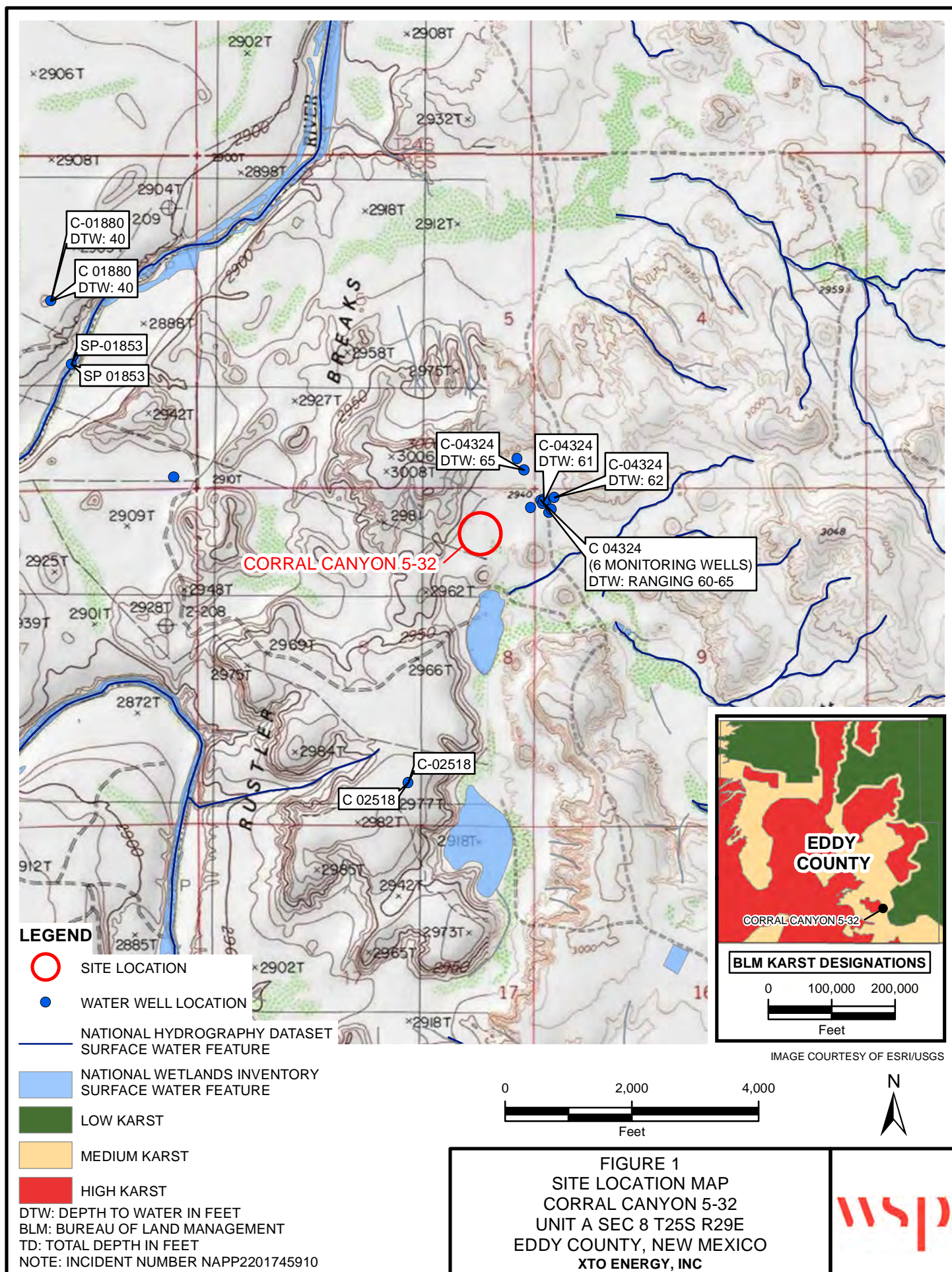
Aimee Cole
Sr. Consultant, Environmental Scientist

cc: Adrian Baker, XTO
Bureau of Land Management

Attachments:

- Figure 1 Site Location Map
- Figure 2 Preliminary Soil Sample Locations
- Figure 3 Delineation Soil Sample Locations
- Table 1 Soil Analytical Results
- Attachment 1 SDS for Friction Reducer
- Attachment 2 Referenced Well Records
- Attachment 3 Lithologic/Soil Sampling Logs
- Attachment 4 Photographic Log
- Attachment 5 Laboratory Analytical Reports

FIGURES

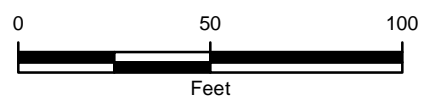


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**LEGEND**

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

IMAGE COURTESY OF ESRI



NOTE: INCIDENT NUMBER NAPP2201944299
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
 CORRAL CANYON 5-32
 UNIT A SEC 8 T25S R29E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.

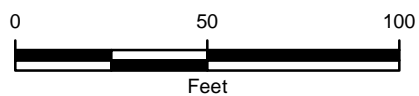


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**LEGEND**

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

IMAGE COURTESY OF ESRI



NOTE: INCIDENT NUMBER NAPP2201944299
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 3
 DELINEATION SOIL SAMPLE LOCATIONS
 CORRAL CANYON 5-32
 UNIT A SEC 8 T25S R29E
 EDDY COUNTY, NEW MEXICO
 XTO ENERGY, INC.



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TABLES

Table 1

Soil Analytical Results
Corral Canyon 5-32
Incident Number NAPP2201944299
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	10,000
Preliminary Soil Samples										
SS01	02/17/2022	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	226
SS02	02/17/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	585
SS03	02/17/2022	0.5	<0.00200	<0.00400	57.1	<49.9	<49.9	57.1	57.1	704
SS04	03/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	59.7
SS05	02/17/2022	0.5	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	212
SS06	02/17/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	122
SS07	02/17/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	185
Delineation Soil Samples										
BH01	03/11/2022	1	<0.00200	<0.00401	167	<49.8	<49.8	167	167	578
BH01A	03/11/2022	2	<0.00202	<0.00403	779	<49.9	<49.9	779	779	529
BH02	03/11/2022	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	225
BH02A	03/11/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	34.3
BH03	03/11/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	92.3
BH3A	03/11/2022	2	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	29.0

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 - oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

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

ATTACHMENT 1: SDS - FRICTION REDUCER



SAFETY DATA SHEET

Issuing Date 01-Aug-2019

Revision Date 01-Aug-2019

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name POLYglide Xcel-200

Other means of identification

Product Code(s) 10497

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

PfP Industries
29738 Goynes Rd.
Katy, TX 77493

Manufacturer Address

PfP Industries
29738 Goynes Rd.
Katy, TX 77493

Emergency telephone number

Company Phone Number 281-371-2000

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids

Category 4

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Warning

Combustible liquid

10497 - POLYglide Xcel-200

Revision Date 01-Aug-2019

Appearance Opaque	Physical state Liquid	Odor Mineral Oil
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Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Information

May be harmful in contact with skin
Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No	Weight-%	Trade secret
Petroleum distillates, hydrotreated light	64742-47-8	40 - 70	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

10497 - POLYglide Xcel-200

Revision Date 01-Aug-2019

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material.
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Environmental precautions

Environmental precautions	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.
----------------------------------	--

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.
--------------------------------	--

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.
---------------------------	--

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Opaque
Color Milky white to yellow
Odor Mineral Oil
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	>= 67 °C / 153 °F	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	0.97 - 1.03	
Water solubility	Miscible in water	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	≥150 mm ² /s	
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

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Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	No information available.
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Numerical measures of toxicity**Acute toxicity**

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)	5,005.00 mg/kg
ATEmix (dermal)	2,002.00 mg/kg
ATEmix (inhalation-dust/mist)	5.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
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Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated light 64742-47-8	-	2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static	-	4720: 96 h Den-dronereides heteropoda mg/L LC50

Persistence and degradability	No information available.
Bioaccumulation	There is no data for this product.
Other adverse effects	No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT	Not regulated. Product does not sustain combustion (49 CFR 173.120(b)(3))
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15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies

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PICCS Complies
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

US State Regulations This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards	2	Flammability	2	Instability	0	Physical and chemical properties	-
<u>HMIS</u>	Health hazards	2	Flammability	2	Physical hazards	0	Personal protection	X

Issuing Date 01-Aug-2019

Revision Date 01-Aug-2019

Revision Note No information available.

Disclaimer

The data supplied herein is for use only in connection with occupational safety and health. The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Updates to this information may be obtained by contacting (either reference contact location or website). PFP Industries MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. This information is not meant to be an all-inclusive document on worldwide hazard communication regulations. Each user of the material described herein must evaluate the conditions of use and design, many of which will be solely within the user's knowledge and control, and the appropriate protective actions, including proper notification and training of employees, necessary to prevent employee exposures, property damage or release to the environment.

End of Safety Data Sheet

ATTACHMENT 2: REFERENCED WELL RECORD



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD 12 (MW01)		WELL TAG ID NO.		OSE FILE NO(S) C-4324			
	WELL OWNER NAME(S) XTO Energy, Inc.				PHONE (OPTIONAL) 432-221-7331			
	WELL OWNER MAILING ADDRESS 522 W Mermond, Suite 704				CITY Carlsbad	STATE NM	ZIP 88220	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE	MINUTES 32	SECONDS 9	4.34	N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84	
		LONGITUDE	103	59	52.36			W
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE North West Quarter of North West Quarter of Section 9, Township 25 South, Range 29 East, Eddy County, New Mexico								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1664		NAME OF LICENSED DRILLER Shawn Cain			NAME OF WELL DRILLING COMPANY Cascade Drilling		
	DRILLING STARTED 7/19/2019		DRILLING ENDED 7/20/2019		DEPTH OF COMPLETED WELL (FT) 65	BORE HOLE DEPTH (FT) 65	DEPTH WATER FIRST ENCOUNTERED (FT) 60	
	COMPLETED WELL IS <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input checked="" type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) 55		
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input checked="" type="checkbox"/> OTHER - SPECIFY: Sonic							
	DEPTH (feet bgl)		BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	65	6					
	0	45		2" PVC Blank	Flush Thread SCH 40	2.067	.154	
	45	65		2" PVC Screen	Flush Thread SCH 40	2.067	.154	.020
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						
	0	2	6	Concrete	.5	<input checked="" type="checkbox"/> Poured		
	2	43	6	Bentonite Chips	7.5	Poured		
	43	65	6	12-20 Sand	4	Poured		

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4324	POD NO. 12	TRN NO. 054446
LOCATION 25S.29E.8.222		WELL TAG ID NO. 25S.29E.8.222
		PAGE 1 OF 2


4. HYDROGEOLOGIC LOG OF WELL


5. TEST: RIG SUPERVISION


6. SIGNATURE

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 04/30/2019)	
FILE NO.	POD NO.	TRN NO.	
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2	

ATTACHMENT 3: LITHOLOGIC/SAMPLING LOG

 <div style="text-align: center;"> WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 </div>						BH or PH Name:		
						BH01		
						Site Name: Corral Canyon 5-32		
						RP or Incident Number: nAPP2201944299		
WSP Job Number: 31403236.029								
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: AC		Method: HAND AUGER
Lat/Long: 32.1500782, -104.0006469				Field Screening:		Hole Diame 0.5'		Total Depth: 2'
Comments: all chloride tests contain 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					0	0		
D	1,428	0.3	Y	BH01	1	1	SP	SAND, dark brown, coarse grained, poorly graded, no stain or odor
D	498.4	0.4	Y	BH01A	2	2		TD @ 2' bgs
								strong odor, moderate staining

 <div> WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 </div>						BH or PH Name:		
						BH02		
						Site Name: Corral Canyon 5-32		
						RP or Incident Number: nAPP2201944299		
WSP Job Number: 31403236.029								
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: AC		Method: HAND AUGER
Lat/Long: 32.1501662, -104.0006905				Field Screening:		Hole Diame 0.5'		Total Depth: 2'
Comments: all chloride tests contain 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					0	0		
D	1,058.4	0.3	Y	BH02	1	1	SP	SAND, dark brown, coarse grained, poorly graded, no stain or odor
D	823.2	0.1	Y	BH02A	2	2		TD @ 2' bgs
								strong odor, moderate staining

 <div> WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220 </div>						BH or PH Name:			
						BH03			
						Site Name: Corral Canyon 5-32			
						RP or Incident Number: nAPP2201944299			
WSP Job Number: 31403236.029						Logged By: AC		Method: HAND AUGER	
LITHOLOGIC / SOIL SAMPLING LOG				Lat/Long: 32.1501298, -104.0007540		Field Screening:		Hole Diame 0.5'	
Comments: all chloride tests contain 40% correction factor M-moist; D-dry; Y-yes; N-no									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
					0	0			
D	2,312.8	0.2	Y	BH03	1	1	SP	SAND, dark brown, coarse grained, poorly graded, no stain or odor	
D	1,058.4	0.1	Y	BH03A	2	2		TD @ 2' bgs	
								strong odor, moderate staining	

ATTACHMENT 4: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Corral Canyon 5-32 Eddy County, New Mexico	NAPP2201944299


Photo No.	Date	
1	February 17, 2022	
Photo of release area taken during the initial site assessment.		 A wide-angle photograph of a large, flat, sandy area, likely a release or storage site. In the background, there are several pieces of heavy machinery, including a blue excavator and a blue truck. A power line with a single pole is visible in the distance. The sky is blue with scattered white clouds.

Photo No.	Date	
2	February 17, 2022	
Photo of release area taken during the initial site assessment.		 A photograph showing a dirt road or path leading through a sandy area. Two large, dark, flexible hoses or pipes are laid out on the ground, running parallel to each other. In the background, there are some orange traffic cones and a white pickup truck parked near a dark container. The sky is overcast with grey clouds.



PHOTOGRAPHIC LOG		
XTO Energy, Inc.	Corral Canyon 5-32 Eddy County, New Mexico	NAPP2201944299


Photo No.	Date	
3	March 11, 2022	
Photo of borehole completed during delineation activities.		

Photo No.	Date	
4	March 11, 2022	
Photo of borehole location taken during delineation activities.		

ATTACHMENT 5: LABORATORY ANALYTICAL REPORTS



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1972-1

Laboratory Sample Delivery Group: 31403236.3029.task09.02
Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

Authorized for release by:
2/25/2022 8:02:45 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Laboratory Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	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: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Job ID: 890-1972-1**Laboratory: Eurofins Carlsbad****Narrative****Job Narrative
890-1972-1****Receipt**

The samples were received on 2/17/2022 4:32 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-1972-1), SS02 (890-1972-2), SS03 (890-1972-3), (890-1972-A-1-F MS) and (890-1972-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Client Sample ID: SS01

Lab Sample ID: 890-1972-1

Date Collected: 02/17/22 10:20

Matrix: Solid

Date Received: 02/17/22 16:32

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/24/22 09:00	02/25/22 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	02/24/22 09:00	02/25/22 17:41	1
1,4-Difluorobenzene (Surr)	107		70 - 130	02/24/22 09:00	02/25/22 17:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/25/22 20:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/23/22 09:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 12:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 12:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 12:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	64	S1-	70 - 130	02/22/22 09:05	02/22/22 12:46	1
o-Terphenyl	72		70 - 130	02/22/22 09:05	02/22/22 12:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	226		4.98	mg/Kg			02/23/22 18:03	1

Client Sample ID: SS02

Lab Sample ID: 890-1972-2

Date Collected: 02/17/22 10:24

Matrix: Solid

Date Received: 02/17/22 16:32

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/24/22 09:00	02/25/22 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/24/22 09:00	02/25/22 18:02	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Client Sample ID: SS02

Lab Sample ID: 890-1972-2

Date Collected: 02/17/22 10:24

Matrix: Solid

Date Received: 02/17/22 16:32

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	02/24/22 09:00	02/25/22 18:02	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/25/22 20:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/23/22 09:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 13:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 13:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 13:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	59	S1-	70 - 130			02/22/22 09:05	02/22/22 13:46	1
o-Terphenyl	67	S1-	70 - 130			02/22/22 09:05	02/22/22 13:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	585		25.1	mg/Kg			02/23/22 18:09	5

Client Sample ID: SS03

Lab Sample ID: 890-1972-3

Date Collected: 02/17/22 10:30

Matrix: Solid

Date Received: 02/17/22 16:32

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:23	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:23	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:23	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 09:00	02/25/22 18:23	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:23	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 09:00	02/25/22 18:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	02/24/22 09:00	02/25/22 18:23	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/24/22 09:00	02/25/22 18:23	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/25/22 20:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	57.1		49.9	mg/Kg			02/23/22 09:21	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Client Sample ID: SS03

Lab Sample ID: 890-1972-3

Date Collected: 02/17/22 10:30

Matrix: Solid

Date Received: 02/17/22 16:32

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/22/22 09:05	02/22/22 14:07	1
Diesel Range Organics (Over C10-C28)	57.1		49.9	mg/Kg		02/22/22 09:05	02/22/22 14:07	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/22 09:05	02/22/22 14:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	63	S1-	70 - 130			02/22/22 09:05	02/22/22 14:07	1
o-Terphenyl	71		70 - 130			02/22/22 09:05	02/22/22 14:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	704		5.00	mg/Kg			02/23/22 18:16	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-11356-A-1-E MS	Matrix Spike	92	111
880-11356-A-1-F MSD	Matrix Spike Duplicate	93	106
890-1972-1	SS01	107	107
890-1972-2	SS02	103	106
890-1972-3	SS03	95	103
LCS 880-19725/1-A	Lab Control Sample	86	107
LCSD 880-19725/2-A	Lab Control Sample Dup	85	110
MB 880-19725/5-A	Method Blank	109	102
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)
890-1972-1	SS01	64 S1-	72
890-1972-1 MS	SS01	70	60 S1-
890-1972-1 MSD	SS01	72	61 S1-
890-1972-2	SS02	59 S1-	67 S1-
890-1972-3	SS03	63 S1-	71
LCS 880-20026/2-A	Lab Control Sample	101	106
LCSD 880-20026/3-A	Lab Control Sample Dup	100	106
MB 880-20026/1-A	Method Blank	75	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19725/5-A

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19725

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 10:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 10:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 10:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 09:00	02/25/22 10:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 10:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 09:00	02/25/22 10:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	02/24/22 09:00	02/25/22 10:25	1
1,4-Difluorobenzene (Surr)	102		70 - 130	02/24/22 09:00	02/25/22 10:25	1

Lab Sample ID: LCS 880-19725/1-A

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19725

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1084		mg/Kg		108	70 - 130
Toluene	0.100	0.08952		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08898		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1813		mg/Kg		91	70 - 130
o-Xylene	0.100	0.08954		mg/Kg		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	86		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-19725/2-A

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19725

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1085		mg/Kg		108	70 - 130	0	35
Toluene	0.100	0.08803		mg/Kg		88	70 - 130	2	35
Ethylbenzene	0.100	0.08742		mg/Kg		87	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1788		mg/Kg		89	70 - 130	1	35
o-Xylene	0.100	0.08779		mg/Kg		88	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-11356-A-1-E MS

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19725

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.1104		mg/Kg		112	70 - 130
Toluene	<0.00199	U	0.0990	0.09183		mg/Kg		92	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

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

Lab Sample ID: 880-11356-A-1-E MS

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19725

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	0.00258		0.0990	0.09203		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1885		mg/Kg		93	70 - 130
o-Xylene	0.00237		0.0990	0.09318		mg/Kg		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: 880-11356-A-1-F MSD

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19725

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0992	0.1074		mg/Kg		108	70 - 130	3	35
Toluene	<0.00199	U	0.0992	0.09362		mg/Kg		93	70 - 130	2	35
Ethylbenzene	0.00258		0.0992	0.09517		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1978		mg/Kg		98	70 - 130	5	35
o-Xylene	0.00237		0.0992	0.09806		mg/Kg		96	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

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

Lab Sample ID: MB 880-20026/1-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20026

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		02/22/22 09:05	02/22/22 11:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130	02/22/22 09:05	02/22/22 11:45	1
o-Terphenyl	91		70 - 130	02/22/22 09:05	02/22/22 11:45	1

Lab Sample ID: LCS 880-20026/2-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	849.9		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1050		mg/Kg		105	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

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

Lab Sample ID: LCS 880-20026/2-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20026

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-20026/3-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20026

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	802.5		mg/Kg		80	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	986.2		mg/Kg		99	70 - 130	6	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 890-1972-1 MS

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 20026

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1225		mg/Kg		123	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1240		mg/Kg		122	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	70		70 - 130								
o-Terphenyl	60	S1-	70 - 130								

Lab Sample ID: 890-1972-1 MSD

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: SS01

Prep Type: Total/NA

Prep Batch: 20026

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1256		mg/Kg		126	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1271		mg/Kg		126	70 - 130	2	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	72		70 - 130								
o-Terphenyl	61	S1-	70 - 130								

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19900/1-A

Matrix: Solid

Analysis Batch: 20072

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			02/23/22 15:03	1

Lab Sample ID: LCS 880-19900/2-A

Matrix: Solid

Analysis Batch: 20072

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	248.4		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-19900/3-A

Matrix: Solid

Analysis Batch: 20072

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	245.9		mg/Kg		98	90 - 110	1	20

Lab Sample ID: 880-11473-A-6-F MS

Matrix: Solid

Analysis Batch: 20072

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	8.48		250	247.8		mg/Kg		96	90 - 110

Lab Sample ID: 880-11473-A-6-G MSD

Matrix: Solid

Analysis Batch: 20072

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	8.48		250	255.8		mg/Kg		99	90 - 110	3	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

GC VOA

Prep Batch: 19725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Total/NA	Solid	5035	
890-1972-2	SS02	Total/NA	Solid	5035	
890-1972-3	SS03	Total/NA	Solid	5035	
MB 880-19725/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19725/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19725/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11356-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-11356-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Total/NA	Solid	8021B	19725
890-1972-2	SS02	Total/NA	Solid	8021B	19725
890-1972-3	SS03	Total/NA	Solid	8021B	19725
MB 880-19725/5-A	Method Blank	Total/NA	Solid	8021B	19725
LCS 880-19725/1-A	Lab Control Sample	Total/NA	Solid	8021B	19725
LCSD 880-19725/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19725
880-11356-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	19725
880-11356-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19725

Analysis Batch: 20372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Total/NA	Solid	Total BTEX	
890-1972-2	SS02	Total/NA	Solid	Total BTEX	
890-1972-3	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Total/NA	Solid	8015NM Prep	
890-1972-2	SS02	Total/NA	Solid	8015NM Prep	
890-1972-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-20026/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20026/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1972-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-1972-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Total/NA	Solid	8015B NM	20026
890-1972-2	SS02	Total/NA	Solid	8015B NM	20026
890-1972-3	SS03	Total/NA	Solid	8015B NM	20026
MB 880-20026/1-A	Method Blank	Total/NA	Solid	8015B NM	20026
LCS 880-20026/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20026
LCSD 880-20026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20026
890-1972-1 MS	SS01	Total/NA	Solid	8015B NM	20026
890-1972-1 MSD	SS01	Total/NA	Solid	8015B NM	20026

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

GC Semi VOA

Analysis Batch: 20120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Total/NA	Solid	8015 NM	
890-1972-2	SS02	Total/NA	Solid	8015 NM	
890-1972-3	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Soluble	Solid	DI Leach	
890-1972-2	SS02	Soluble	Solid	DI Leach	
890-1972-3	SS03	Soluble	Solid	DI Leach	
MB 880-19900/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19900/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19900/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11473-A-6-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11473-A-6-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 20072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1972-1	SS01	Soluble	Solid	300.0	19900
890-1972-2	SS02	Soluble	Solid	300.0	19900
890-1972-3	SS03	Soluble	Solid	300.0	19900
MB 880-19900/1-A	Method Blank	Soluble	Solid	300.0	19900
LCS 880-19900/2-A	Lab Control Sample	Soluble	Solid	300.0	19900
LCSD 880-19900/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19900
880-11473-A-6-F MS	Matrix Spike	Soluble	Solid	300.0	19900
880-11473-A-6-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19900

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Client Sample ID: SS01

Lab Sample ID: 890-1972-1

Date Collected: 02/17/22 10:20

Matrix: Solid

Date Received: 02/17/22 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20287	02/25/22 17:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20372	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20120	02/23/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20026	02/22/22 09:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20030	02/22/22 12:46	AJ	XEN MID
Soluble	Leach	DI Leach			19900	02/21/22 16:00	CH	XEN MID
Soluble	Analysis	300.0		1	20072	02/23/22 18:03	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1972-2

Date Collected: 02/17/22 10:24

Matrix: Solid

Date Received: 02/17/22 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20287	02/25/22 18:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20372	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20120	02/23/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20026	02/22/22 09:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20030	02/22/22 13:46	AJ	XEN MID
Soluble	Leach	DI Leach			19900	02/21/22 16:00	CH	XEN MID
Soluble	Analysis	300.0		5	20072	02/23/22 18:09	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1972-3

Date Collected: 02/17/22 10:30

Matrix: Solid

Date Received: 02/17/22 16:32

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20287	02/25/22 18:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20372	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20120	02/23/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20026	02/22/22 09:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20030	02/22/22 14:07	AJ	XEN MID
Soluble	Leach	DI Leach			19900	02/21/22 16:00	CH	XEN MID
Soluble	Analysis	300.0		1	20072	02/23/22 18:16	CH	XEN MID

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1
SDG: 31403236.3029.task09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1972-1	SS01	Solid	02/17/22 10:20	02/17/22 16:32	0.5
890-1972-2	SS02	Solid	02/17/22 10:24	02/17/22 16:32	0.5
890-1972-3	SS03	Solid	02/17/22 10:30	02/17/22 16:32	0.5

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- 14



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)/94-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 233-3333
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No:


Page 1 of 1

Project Manager:	Beill, Benjamin	Bill to: (if different)	Amy Ruth
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	508 West Stevens Street	Address:	3104 E Green Street
City, State ZIP:	Carlsbad, New Mexico 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	969 854 0652	Email:	amy.ruth@exxomobi.com, aimee.cole@wsp.com

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

Project Name:	Corral Canyon 5-32	Turn Around	ANALYSIS REQUEST					Work Order Notes
Project Number:	31403236.029 Task 09.02	Routine <input checked="" type="checkbox"/>						
P.O. Number:	NAPP2201944299	Rush:						AFF:ID:2017.04580.CAP
Sampler's Name:	Mercy Rotich.	Due Date:						CMP:01

SAMPLE RECEIPT		Temp Blank:	Wet Ice:	
Temperature (°C):	<u>3.6 / 2.8</u>	(Yes) No	(Yes) No	
Received Intact:	(Yes) No	Thermometer ID <u>T-NA-007</u>		
Cooler Custody Seals:	Yes No	Correction Factor: <u>-0.7</u>		
Sample Custody Seals:	Yes No	Total Containers:		





890-1972 Chain of Custody

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

[illegible]

Total	200.7 / 6010	200.8 / 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
TCLP / SPLP 6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control by 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.

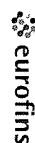
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		2/7/22 4:32	2		
3			4		
5			6		

Revised Date 05/11/18 Row 2018

Eurofins Carlsbad

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

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1972-1

SDG Number: 31403236.3029.task09.02

Login Number: 1972

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1972-1

SDG Number: 31403236.3029.task09.02

Login Number: 1972

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 02/21/22 08:09 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1974-1

Laboratory Sample Delivery Group: 31403236.029 task09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

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

Authorized for release by:
2/28/2022 3:37:48 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Laboratory Job ID: 890-1974-1
SDG: 31403236.029 task09.02

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Job ID: 890-1974-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1974-1

Receipt

The sample was received on 2/17/2022 4:33 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS05 (890-1974-1), (890-1972-A-1-E), (890-1972-A-1-F MS) and (890-1972-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19898 and analytical batch 880-19941 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Client Sample ID: SS05

Lab Sample ID: 890-1974-1

Date Collected: 02/17/22 10:40

Matrix: Solid

Date Received: 02/17/22 16:33

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/25/22 16:00	02/27/22 07:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/25/22 16:00	02/27/22 07:28	1
1,4-Difluorobenzene (Surr)	97		70 - 130	02/25/22 16:00	02/27/22 07:28	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/28/22 11:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/23/22 09:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	60	S1-	70 - 130	02/22/22 09:05	02/22/22 15:28	1
o-Terphenyl	66	S1-	70 - 130	02/22/22 09:05	02/22/22 15:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	212		5.01	mg/Kg			02/22/22 17:51	1

Eurofins Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1974-1	SS05	104	97
890-1974-1 MS	SS05	103	101
890-1974-1 MSD	SS05	98	100
LCS 880-20241/1-A	Lab Control Sample	104	101
LCSD 880-20241/2-A	Lab Control Sample Dup	100	101
MB 880-20241/5-A	Method Blank	99	94
MB 880-20317/5-A	Method Blank	100	96
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)
890-1972-A-1-F MS	Matrix Spike	70	60 S1-
890-1972-A-1-G MSD	Matrix Spike Duplicate	72	61 S1-
890-1974-1	SS05	60 S1-	66 S1-
LCS 880-20026/2-A	Lab Control Sample	101	106
LCSD 880-20026/3-A	Lab Control Sample Dup	100	106
MB 880-20026/1-A	Method Blank	75	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-20241/5-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20241

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/25/22 16:00	02/27/22 07:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/25/22 16:00	02/27/22 07:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/25/22 16:00	02/27/22 07:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/25/22 16:00	02/27/22 07:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/25/22 16:00	02/27/22 07:06	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/25/22 16:00	02/27/22 07:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	02/25/22 16:00	02/27/22 07:06	1
1,4-Difluorobenzene (Surr)	94		70 - 130	02/25/22 16:00	02/27/22 07:06	1

Lab Sample ID: LCS 880-20241/1-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1054		mg/Kg		105	70 - 130
Toluene	0.100	0.1018		mg/Kg		102	70 - 130
Ethylbenzene	0.100	0.1006		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2085		mg/Kg		104	70 - 130
o-Xylene	0.100	0.1030		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-20241/2-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	2	35
Toluene	0.100	0.1029		mg/Kg		103	70 - 130	1	35
Ethylbenzene	0.100	0.1012		mg/Kg		101	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2095		mg/Kg		105	70 - 130	0	35
o-Xylene	0.100	0.1032		mg/Kg		103	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 890-1974-1 MS

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 20241

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U	0.0990	0.1111		mg/Kg		112	70 - 130
Toluene	<0.00198	U	0.0990	0.1071		mg/Kg		108	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

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

Lab Sample ID: 890-1974-1 MS

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 20241

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U	0.0990	0.1053		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	<0.00397	U	0.198	0.2187		mg/Kg		110	70 - 130
o-Xylene	<0.00198	U	0.0990	0.1077		mg/Kg		109	70 - 130

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

Lab Sample ID: 890-1974-1 MSD

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: SS05

Prep Type: Total/NA

Prep Batch: 20241

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.1067		mg/Kg		107	70 - 130	4	35
Toluene	<0.00198	U	0.100	0.1026		mg/Kg		103	70 - 130	4	35
Ethylbenzene	<0.00198	U	0.100	0.1006		mg/Kg		101	70 - 130	5	35
m-Xylene & p-Xylene	<0.00397	U	0.200	0.2093		mg/Kg		105	70 - 130	4	35
o-Xylene	<0.00198	U	0.100	0.1025		mg/Kg		103	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: MB 880-20317/5-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20317

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/25/22 12:16	02/26/22 20:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/25/22 12:16	02/26/22 20:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/25/22 12:16	02/26/22 20:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/25/22 12:16	02/26/22 20:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/25/22 12:16	02/26/22 20:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/25/22 12:16	02/26/22 20:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	02/25/22 12:16	02/26/22 20:13	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/25/22 12:16	02/26/22 20:13	1

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

Lab Sample ID: MB 880-20026/1-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20026

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		02/22/22 09:05	02/22/22 11:45	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

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

Lab Sample ID: MB 880-20026/1-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20026

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130			02/22/22 09:05	02/22/22 11:45	1
o-Terphenyl	91		70 - 130			02/22/22 09:05	02/22/22 11:45	1

Lab Sample ID: LCS 880-20026/2-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	849.9		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1050		mg/Kg		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	101		70 - 130				
o-Terphenyl	106		70 - 130				

Lab Sample ID: LCSD 880-20026/3-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20026

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	802.5		mg/Kg		80	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	986.2		mg/Kg		99	70 - 130	6	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	100		70 - 130						
o-Terphenyl	106		70 - 130						

Lab Sample ID: 890-1972-A-1-F MS

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20026

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	1000	1225		mg/Kg		123	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1240		mg/Kg		122	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	70		70 - 130						
o-Terphenyl	60	S1-	70 - 130						

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

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

Lab Sample ID: 890-1972-A-1-G MSD

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20026

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	1256		mg/Kg		126	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1271		mg/Kg		126	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	72		70 - 130								
o-Terphenyl	61	S1-	70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19898/1-A

Matrix: Solid

Analysis Batch: 19941

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			02/22/22 17:13	1

Lab Sample ID: LCS 880-19898/2-A

Matrix: Solid

Analysis Batch: 19941

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	257.8		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-19898/3-A

Matrix: Solid

Analysis Batch: 19941

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	258.5		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-1978-A-1-F MS

Matrix: Solid

Analysis Batch: 19941

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	491	F1	252	809.2	F1	mg/Kg		126	90 - 110

Lab Sample ID: 890-1978-A-1-G MSD

Matrix: Solid

Analysis Batch: 19941

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	491	F1	252	834.6	F1	mg/Kg		136	90 - 110	3	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

GC VOA

Prep Batch: 20241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Total/NA	Solid	5035	
MB 880-20241/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20241/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20241/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1974-1 MS	SS05	Total/NA	Solid	5035	
890-1974-1 MSD	SS05	Total/NA	Solid	5035	

Analysis Batch: 20289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Total/NA	Solid	8021B	20241
MB 880-20241/5-A	Method Blank	Total/NA	Solid	8021B	20241
MB 880-20317/5-A	Method Blank	Total/NA	Solid	8021B	20317
LCS 880-20241/1-A	Lab Control Sample	Total/NA	Solid	8021B	20241
LCSD 880-20241/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20241
890-1974-1 MS	SS05	Total/NA	Solid	8021B	20241
890-1974-1 MSD	SS05	Total/NA	Solid	8021B	20241

Prep Batch: 20317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20317/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 20475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-20026/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20026/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1972-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1972-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Total/NA	Solid	8015B NM	20026
MB 880-20026/1-A	Method Blank	Total/NA	Solid	8015B NM	20026
LCS 880-20026/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20026
LCSD 880-20026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20026
890-1972-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	20026
890-1972-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20026

Analysis Batch: 20122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

HPLC/IC

Leach Batch: 19898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Soluble	Solid	DI Leach	
MB 880-19898/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19898/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19898/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1978-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1978-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1974-1	SS05	Soluble	Solid	300.0	19898
MB 880-19898/1-A	Method Blank	Soluble	Solid	300.0	19898
LCS 880-19898/2-A	Lab Control Sample	Soluble	Solid	300.0	19898
LCSD 880-19898/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19898
890-1978-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	19898
890-1978-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19898

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Client Sample ID: SS05

Lab Sample ID: 890-1974-1

Date Collected: 02/17/22 10:40

Matrix: Solid

Date Received: 02/17/22 16:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			20241	02/25/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20289	02/27/22 07:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20475	02/28/22 11:39	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20122	02/23/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20026	02/22/22 09:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20030	02/22/22 15:28	AJ	XEN MID
Soluble	Leach	DI Leach			19898	02/21/22 09:19	CH	XEN MID
Soluble	Analysis	300.0		1	19941	02/22/22 17:51	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1
SDG: 31403236.029 task09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1974-1	SS05	Solid	02/17/22 10:40	02/17/22 16:33	0.5

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



Chain of Custody


Houston, TX (281) 240-4200 Dallas, TX (214) 902-0330 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1256
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)
Hobbs, NM (575-392-7550)

www.xenco.com Page 1 of 1

Work Order No:

Project Manager:		Bejill, Benjamin	Bill to: (if different)	Amy Ruth
Company Name:		WSP USA	Company Name:	XTO Energy
Address:		508 West Stevens Street	Address:	3104 E Green Street
City, State ZIP:		Carlsbad, New Mexico 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989 854 0852	Email:	amy.ruth@exxomobill.com, aimee.cole@wsp.com	

Work Order Comments				
Program: UST/ST <input type="checkbox"/> PAP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>				
State of Project:				
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> RAP <input type="checkbox"/> Level IV <input type="checkbox"/>				
Deliverables: EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: <input type="checkbox"/>				

Project Name:	Corral Canyon 5-32	Turn Around		Work Order Notes
Project Number:	31403236.029 Task 09.02	Routine	<input checked="" type="checkbox"/>	
P.O. Number:	NAPP2201944299	Rush:		AFE:DD.2017.04580.CAP
Sampler's Name:	Mercy Rotich.	Due Date:		CMP.01
SAMPLE RECEIPT		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Temperature (°C):	3012.8	Thermometer ID		
Received intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	-0.2	
Cooler Custody Seal:	Yes No N/A	Total Containers:		
Sample Custody Seals:	Yes No N/A			
Number of Containers				
PA 8015)				
EPA 0=8021)				
e (EPA 300.0)				
 890-1974 Chain of Custody				
TAT starts the day received by the lab, if received by 4:30pm				

[illegible]

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

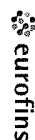
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	2/17/12 4:33	2		
3 <i>[Signature]</i>			4		
			6		

Eurofins Carlsbad

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

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1974-1

SDG Number: 31403236.029 task09.02

Login Number: 1974

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1974-1
SDG Number: 31403236.029 task09.02

Login Number: 1974

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 02/21/22 08:09 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1975-1

Laboratory Sample Delivery Group: 31403236.029task0902
Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

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

Authorized for release by:
2/24/2022 6:52:34 PM

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

LINKS

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

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

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Laboratory Job ID: 890-1975-1
SDG: 31403236.029task0902

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Job ID: 890-1975-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1975-1

Receipt

The sample was received on 2/17/2022 4:33 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS06 (890-1975-1), (890-1972-A-1-E), (890-1972-A-1-F MS) and (890-1972-A-1-G MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19898 and analytical batch 880-19941 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Client Sample ID: SS06

Lab Sample ID: 890-1975-1

Date Collected: 02/17/22 10:44

Matrix: Solid

Date Received: 02/17/22 16:33

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/24/22 07:45	02/24/22 11:52	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/24/22 07:45	02/24/22 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	02/24/22 07:45	02/24/22 11:52	1
1,4-Difluorobenzene (Surr)	92		70 - 130	02/24/22 07:45	02/24/22 11:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/24/22 16:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/23/22 09:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	61	S1-	70 - 130	02/22/22 09:05	02/22/22 15:49	1
o-Terphenyl	67	S1-	70 - 130	02/22/22 09:05	02/22/22 15:49	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	122		4.98	mg/Kg			02/22/22 17:57	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

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)
890-1948-A-1-J MS	Matrix Spike	97	97
890-1948-A-1-K MSD	Matrix Spike Duplicate	98	98
890-1975-1	SS06	117	92
LCS 880-19723/1-A	Lab Control Sample	97	97
LCSD 880-19723/2-A	Lab Control Sample Dup	99	98
MB 880-19723/5-A	Method Blank	99	95
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1972-A-1-F MS	Matrix Spike	70	60 S1-
890-1972-A-1-G MSD	Matrix Spike Duplicate	72	61 S1-
890-1975-1	SS06	61 S1-	67 S1-
LCS 880-20026/2-A	Lab Control Sample	101	106
LCSD 880-20026/3-A	Lab Control Sample Dup	100	106
MB 880-20026/1-A	Method Blank	75	91
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19723

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 07:45	02/24/22 11:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	02/24/22 07:45	02/24/22 11:10	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/24/22 07:45	02/24/22 11:10	1

Lab Sample ID: LCS 880-19723/1-A

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19723

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1025		mg/Kg		103	70 - 130
Toluene	0.100	0.1011		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.09945		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2055		mg/Kg		103	70 - 130
o-Xylene	0.100	0.09841		mg/Kg		98	70 - 130

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

Lab Sample ID: LCSD 880-19723/2-A

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19723

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1127		mg/Kg		113	70 - 130	9	35
Toluene	0.100	0.1117		mg/Kg		112	70 - 130	10	35
Ethylbenzene	0.100	0.1097		mg/Kg		110	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.2288		mg/Kg		114	70 - 130	11	35
o-Xylene	0.100	0.1101		mg/Kg		110	70 - 130	11	35

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

Lab Sample ID: 890-1948-A-1-J MS

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0996	0.1097		mg/Kg		110	70 - 130
Toluene	<0.00200	U	0.0996	0.1098		mg/Kg		110	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

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

Lab Sample ID: 890-1948-A-1-J MS

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.0996	0.1061		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2214		mg/Kg		111	70 - 130
o-Xylene	<0.00200	U	0.0996	0.1059		mg/Kg		106	70 - 130

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

Lab Sample ID: 890-1948-A-1-K MSD

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19723

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.1099		mg/Kg		110	70 - 130	0	35
Toluene	<0.00200	U	0.100	0.1088		mg/Kg		109	70 - 130	1	35
Ethylbenzene	<0.00200	U	0.100	0.1059		mg/Kg		106	70 - 130	0	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.2203		mg/Kg		110	70 - 130	1	35
o-Xylene	<0.00200	U	0.100	0.1056		mg/Kg		106	70 - 130	0	35

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

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

Lab Sample ID: MB 880-20026/1-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20026

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		02/22/22 09:05	02/22/22 11:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130	02/22/22 09:05	02/22/22 11:45	1
o-Terphenyl	91		70 - 130	02/22/22 09:05	02/22/22 11:45	1

Lab Sample ID: LCS 880-20026/2-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	849.9		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1050		mg/Kg		105	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

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

Lab Sample ID: LCS 880-20026/2-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20026

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-20026/3-A

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20026

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	802.5		mg/Kg		80	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	986.2		mg/Kg		99	70 - 130	6	20
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	106		70 - 130								

Lab Sample ID: 890-1972-A-1-F MS

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 20026

	Sample	Sample	Spike	MS	MS				%Rec.			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1225		mg/Kg		123	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1240		mg/Kg		122	70 - 130			
									</			

Lab Sample ID: 890-1972-A-1-G MSD

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20026

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1256		mg/Kg		126	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1271		mg/Kg		126	70 - 130	2	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19898/1-A

Matrix: Solid

Analysis Batch: 19941

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			02/22/22 17:13	1

Lab Sample ID: LCS 880-19898/2-A

Matrix: Solid

Analysis Batch: 19941

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	257.8		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-19898/3-A

Matrix: Solid

Analysis Batch: 19941

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	258.5		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-1978-A-1-F MS

Matrix: Solid

Analysis Batch: 19941

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	491	F1	252	809.2	F1	mg/Kg		126	90 - 110

Lab Sample ID: 890-1978-A-1-G MSD

Matrix: Solid

Analysis Batch: 19941

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	491	F1	252	834.6	F1	mg/Kg		136	90 - 110	3	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

GC VOA

Prep Batch: 19723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Total/NA	Solid	5035	
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19723/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19723/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1948-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	
890-1948-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Total/NA	Solid	8021B	19723
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
LCS 880-19723/1-A	Lab Control Sample	Total/NA	Solid	8021B	19723
LCSD 880-19723/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19723
890-1948-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	19723
890-1948-A-1-K MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19723

Analysis Batch: 20261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 20026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Total/NA	Solid	8015NM Prep	
MB 880-20026/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20026/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1972-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1972-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Total/NA	Solid	8015B NM	20026
MB 880-20026/1-A	Method Blank	Total/NA	Solid	8015B NM	20026
LCS 880-20026/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20026
LCSD 880-20026/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20026
890-1972-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	20026
890-1972-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20026

Analysis Batch: 20123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Soluble	Solid	DI Leach	
MB 880-19898/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19898/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19898/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

HPLC/IC (Continued)

Leach Batch: 19898 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1978-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1978-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1975-1	SS06	Soluble	Solid	300.0	19898
MB 880-19898/1-A	Method Blank	Soluble	Solid	300.0	19898
LCS 880-19898/2-A	Lab Control Sample	Soluble	Solid	300.0	19898
LCSD 880-19898/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19898
890-1978-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	19898
890-1978-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19898

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Client Sample ID: SS06
Date Collected: 02/17/22 10:44
Date Received: 02/17/22 16:33

Lab Sample ID: 890-1975-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19723	02/24/22 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	20184	02/24/22 11:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20261	02/24/22 16:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20123	02/23/22 09:21	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20026	02/22/22 09:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20030	02/22/22 15:49	AJ	XEN MID
Soluble	Leach	DI Leach			19898	02/21/22 09:19	CH	XEN MID
Soluble	Analysis	300.0		1	19941	02/22/22 17:57	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1
SDG: 31403236.029task0902

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1975-1	SS06	Solid	02/17/22 10:44	02/17/22 16:33	0.5

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



Chain of Custody

Work Order No:

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 555-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 234-4444
Hobbs, NM (575-392-7550)

Page 1 of 1

Project Manager:	Beilli, Benjamin	Bill to: (if different)	Amy Ruith
Company Name:	WSP USA	Company Name:	XTO Energy
Address:	508 West Stevens Street	Address:	3104 E Green Street
City, State ZIP:	Carlsbad, New Mexico 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989 854 0852	Email:	amy.ruith@exxomobill.com, aimee.cole@wsp.com

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

Project Name:	Corral Canyon 5-32	Turn Around	ANALYSIS REQUEST				Work Order Notes
Project Number:	31403236.029 Task 09.02	Routine <input checked="" type="checkbox"/>					AFE:ID.2017.04580.CAP CMP.01
P.O. Number:	NAPP2201944299	Rush:					
Sampler's Name:	Mercy Rotich.	Due Date:					

SAMPLE RECEIPT		Temp Blank:	Wet Ice:	Thermometer ID
Temperature (°C):	3.0 / 2.8	Yes No	Yes No	
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No	N/A		
Sample Custody Seals:	Yes No	N/A		

Number of Containers

EPA 8015)

EPA 0-8021)

le (EPA 300.0)

890-1975 Chain of Custody

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

[illegible]

890-1975 Chain of Custody

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

AF-E:DD.2017.04580.CAP.
CMP.01

[illegible]

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 <i>Aug</i>	<i>[Signature]</i>	2/17/12	2		
3			4		
5			6		

Download Date: 05/14/18 09:20:18

Eurofins Carlsbad

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

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1975-1

SDG Number: 31403236.029task0902

Login Number: 1975

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1975-1
SDG Number: 31403236.029task0902Login Number: 1975
List Number: 2
Creator: Teel, BriannaList Source: Eurofins Midland
List Creation: 02/21/22 08:09 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1976-1

Laboratory Sample Delivery Group: 31403236.029.task09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

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

Authorized for release by:
2/28/2022 3:22:22 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Laboratory Job ID: 890-1976-1
SDG: 31403236.029.task09.02

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

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
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Job ID: 890-1976-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-1976-1

Receipt

The sample was received on 2/17/2022 4:33 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS07 (890-1976-1), (880-11473-A-1-C), (880-11473-A-1-D MS) and (880-11473-A-1-E MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19898 and analytical batch 880-19941 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Client Sample ID: SS07

Lab Sample ID: 890-1976-1

Date Collected: 02/17/22 10:54

Matrix: Solid

Date Received: 02/17/22 16:33

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/24/22 08:30	02/26/22 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	02/24/22 08:30	02/26/22 13:31	1
1,4-Difluorobenzene (Surr)	103		70 - 130	02/24/22 08:30	02/26/22 13:31	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/22/22 16:01	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	<49.9	U	49.9	mg/Kg		02/21/22 11:35	02/21/22 23:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		02/21/22 11:35	02/21/22 23:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/21/22 11:35	02/21/22 23:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	59	S1-	70 - 130	02/21/22 11:35	02/21/22 23:45	1
o-Terphenyl	67	S1-	70 - 130	02/21/22 11:35	02/21/22 23:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	185		4.95	mg/Kg			02/22/22 18:04	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1967-A-1-D MS	Matrix Spike	97	115
890-1967-A-1-E MSD	Matrix Spike Duplicate	101	118
890-1976-1	SS07	102	103
LCS 880-19711/1-A	Lab Control Sample	96	103
LCSD 880-19711/2-A	Lab Control Sample Dup	97	107
MB 880-19711/5-A	Method Blank	115	101
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)
880-11473-A-1-D MS	Matrix Spike	63 S1-	53 S1-
880-11473-A-1-E MSD	Matrix Spike Duplicate	73	61 S1-
890-1976-1	SS07	59 S1-	67 S1-
LCS 880-19908/2-A	Lab Control Sample	114	114
LCSD 880-19908/3-A	Lab Control Sample Dup	118	122
MB 880-19908/1-A	Method Blank	74	88
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19711/5-A

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19711

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 08:30	02/26/22 08:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 08:30	02/26/22 08:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 08:30	02/26/22 08:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 08:30	02/26/22 08:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 08:30	02/26/22 08:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 08:30	02/26/22 08:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	02/24/22 08:30	02/26/22 08:37	1
1,4-Difluorobenzene (Surr)	101		70 - 130	02/24/22 08:30	02/26/22 08:37	1

Lab Sample ID: LCS 880-19711/1-A

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19711

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09405		mg/Kg		94	70 - 130
Toluene	0.100	0.08541		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.08723		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1794		mg/Kg		90	70 - 130
o-Xylene	0.100	0.09139		mg/Kg		91	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	96		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-19711/2-A

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19711

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1072		mg/Kg		107	70 - 130	13	35
Toluene	0.100	0.09105		mg/Kg		91	70 - 130	6	35
Ethylbenzene	0.100	0.09125		mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1861		mg/Kg		93	70 - 130	4	35
o-Xylene	0.100	0.09413		mg/Kg		94	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 890-1967-A-1-D MS

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19711

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0994	0.09142		mg/Kg		92	70 - 130
Toluene	<0.00199	U F1	0.0994	0.06487	F1	mg/Kg		65	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

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

Lab Sample ID: 890-1967-A-1-D MS

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19711

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1	0.0994	0.06677	F1	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1318	F1	mg/Kg		66	70 - 130
o-Xylene	<0.00199	U	0.0994	0.07148		mg/Kg		72	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	97		70 - 130						
1,4-Difluorobenzene (Surr)	115		70 - 130						

Lab Sample ID: 890-1967-A-1-E MSD

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19711

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.09905		mg/Kg		99	70 - 130	8	35
Toluene	<0.00199	U F1	0.0998	0.06894	F1	mg/Kg		69	70 - 130	6	35
Ethylbenzene	<0.00199	U F1	0.0998	0.06734	F1	mg/Kg		67	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1358	F1	mg/Kg		68	70 - 130	3	35
o-Xylene	<0.00199	U	0.0998	0.07305		mg/Kg		73	70 - 130	2	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	101		70 - 130								
1,4-Difluorobenzene (Surr)	118		70 - 130								

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

Lab Sample ID: MB 880-19908/1-A

Matrix: Solid

Analysis Batch: 19889

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19908

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		02/21/22 11:35	02/21/22 19:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/21/22 11:35	02/21/22 19:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/21/22 11:35	02/21/22 19:55	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130			02/21/22 11:35	02/21/22 19:55	1
o-Terphenyl	88		70 - 130			02/21/22 11:35	02/21/22 19:55	1

Lab Sample ID: LCS 880-19908/2-A

Matrix: Solid

Analysis Batch: 19889

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	879.4		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1025		mg/Kg		102	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

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

Lab Sample ID: LCS 880-19908/2-A

Matrix: Solid

Analysis Batch: 19889

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19908

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

Lab Sample ID: LCSD 880-19908/3-A

Matrix: Solid

Analysis Batch: 19889

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	929.6		mg/Kg		93	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	1117		mg/Kg		112	70 - 130	9	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	118		70 - 130
o-Terphenyl	122		70 - 130

Lab Sample ID: 880-11473-A-1-D MS

Matrix: Solid

Analysis Batch: 19889

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1018		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1067		mg/Kg		104	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	63	S1-	70 - 130
o-Terphenyl	53	S1-	70 - 130

Lab Sample ID: 880-11473-A-1-E MSD

Matrix: Solid

Analysis Batch: 19889

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19908

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	1185		mg/Kg		117	70 - 130	15	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1241		mg/Kg		122	70 - 130	15	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	61	S1-	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19898/1-A

Matrix: Solid

Analysis Batch: 19941

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			02/22/22 17:13	1

Lab Sample ID: LCS 880-19898/2-A

Matrix: Solid

Analysis Batch: 19941

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	257.8		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-19898/3-A

Matrix: Solid

Analysis Batch: 19941

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	258.5		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-1978-A-1-F MS

Matrix: Solid

Analysis Batch: 19941

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	491	F1	252	809.2	F1	mg/Kg		126	90 - 110

Lab Sample ID: 890-1978-A-1-G MSD

Matrix: Solid

Analysis Batch: 19941

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	491	F1	252	834.6	F1	mg/Kg		136	90 - 110	3	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

GC VOA

Prep Batch: 19711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Total/NA	Solid	5035	
MB 880-19711/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19711/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19711/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1967-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-1967-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Total/NA	Solid	8021B	19711
MB 880-19711/5-A	Method Blank	Total/NA	Solid	8021B	19711
LCS 880-19711/1-A	Lab Control Sample	Total/NA	Solid	8021B	19711
LCSD 880-19711/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19711
890-1967-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	19711
890-1967-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19711

Analysis Batch: 20444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 19889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Total/NA	Solid	8015B NM	19908
MB 880-19908/1-A	Method Blank	Total/NA	Solid	8015B NM	19908
LCS 880-19908/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19908
LCSD 880-19908/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19908
880-11473-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	19908
880-11473-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19908

Prep Batch: 19908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-19908/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19908/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19908/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11473-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11473-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 20081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Soluble	Solid	DI Leach	
MB 880-19898/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19898/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19898/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

HPLC/IC (Continued)

Leach Batch: 19898 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1978-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1978-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1976-1	SS07	Soluble	Solid	300.0	19898
MB 880-19898/1-A	Method Blank	Soluble	Solid	300.0	19898
LCS 880-19898/2-A	Lab Control Sample	Soluble	Solid	300.0	19898
LCSD 880-19898/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19898
890-1978-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	19898
890-1978-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19898

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Client Sample ID: SS07
Date Collected: 02/17/22 10:54
Date Received: 02/17/22 16:33

Lab Sample ID: 890-1976-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			19711	02/24/22 08:30	KL	XEN MID
Total/NA	Analysis	8021B		1	20287	02/26/22 13:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20444	02/28/22 10:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20081	02/22/22 16:01	AJ	XEN MID
Total/NA	Prep	8015NM Prep			19908	02/21/22 11:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1	19889	02/21/22 23:45	AJ	XEN MID
Soluble	Leach	DI Leach			19898	02/21/22 09:19	CH	XEN MID
Soluble	Analysis	300.0		1	19941	02/22/22 18:04	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1
SDG: 31403236.029.task09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1976-1	SS07	Solid	02/17/22 10:54	02/17/22 16:33	0.5

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



Chain of Custody

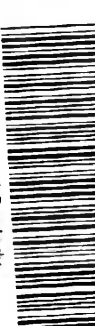
Work Order No:

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480) 335-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 575-3827

Page 1 of 1

Project Manager:		Beillit, Benjamin		Bill to: (if different)		Amy Ruth	
Company Name:		WSP USA		Company Name:		XTO Energy	
Address:		508 West Stevens Street		Address:		3104 E Green Street	
City, State ZIP:		Carlsbad, New Mexico 88220		City, State ZIP:		Carlsbad, NM 88220	
Phone:		989 854 0852		Email:		amy.ruth@exxonmobil.com, aimee.cole@wsp.com	

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

Project Name:	Corral Canyon 5-32	Turn Around		Work Order Notes
Project Number:	31403236 029 Task 09.02	Routine	<input checked="" type="checkbox"/>	
P.O. Number:	NAPPP2201944299	Rush:		A/E::DD.2017.04580.CAP CMP.01
Sampler's Name:	Mercy Rotich.	Due Date:		
SAMPLE RECEIPT				
Temperature (°C):	3.0/2.8	Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Received Inact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Total Containers:		
<div> <div>ANALYSIS REQUEST</div> <div>  <p>890-1976 Chain of Custody</p> </div> </div>				
<div> <div>PA 8015)</div> <div>EPA 0-8021)</div> <div>le (EPA 300.0)</div> </div>				
<div> <div>TAT starts the day received by the lab. if received by 4:30pm</div> </div>				

[illegible]

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

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

of service. Xenoa 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 Xenoa. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xenoa, but not analyzed. These terms will be enforced unless previously negotiated.

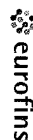
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	2/12/12 4:34 ²			
3			4		
5			6		

Printed Date: 05/17/18 Row: 20

Eurofins Carlsbad

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

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1976-1

SDG Number: 31403236.029.task09.02

Login Number: 1976

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1976-1

SDG Number: 31403236.029.task09.02

Login Number: 1976

List Number: 2

Creator: Teel, Brianna

List Source: Eurofins Midland

List Creation: 02/21/22 08:09 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2104-1

Laboratory Sample Delivery Group: 31403236.029 Task #09.02
Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Kalei Jennings

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

Authorized for release by:
3/21/2022 6:12:22 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Laboratory Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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
SQL	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: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Job ID: 890-2104-1

Laboratory: Eurofins Carlsbad**Narrative**

**Job Narrative
890-2104-1****Receipt**

The samples were received on 3/18/2022 11:30 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 0.4°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-21982 and analytical batch 880-21983 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Client Sample ID: BH01

Lab Sample ID: 890-2104-1

Date Collected: 03/11/22 09:35

Matrix: Solid

Date Received: 03/18/22 11:30

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		03/21/22 07:44	03/21/22 12:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/21/22 07:44	03/21/22 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/21/22 07:44	03/21/22 12:01	1
1,4-Difluorobenzene (Surr)	109		70 - 130	03/21/22 07:44	03/21/22 12:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/21/22 15:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	167		49.8	mg/Kg			03/21/22 15:13	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		03/21/22 09:09	03/21/22 13:20	1
Diesel Range Organics (Over C10-C28)	167		49.8	mg/Kg		03/21/22 09:09	03/21/22 13:20	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/21/22 09:09	03/21/22 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	03/21/22 09:09	03/21/22 13:20	1
o-Terphenyl	100		70 - 130	03/21/22 09:09	03/21/22 13:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	578		5.00	mg/Kg			03/21/22 16:40	1

Client Sample ID: BH01A

Lab Sample ID: 890-2104-2

Date Collected: 03/11/22 09:40

Matrix: Solid

Date Received: 03/18/22 11:30

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 12:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/21/22 07:44	03/21/22 12:22	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Client Sample ID: BH01A

Lab Sample ID: 890-2104-2

Date Collected: 03/11/22 09:40

Matrix: Solid

Date Received: 03/18/22 11:30

Sample Depth: 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	110		70 - 130	03/21/22 07:44	03/21/22 12:22	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			03/21/22 15:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	779		49.9	mg/Kg			03/21/22 15:13	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		03/21/22 09:09	03/21/22 13:41	1
Diesel Range Organics (Over C10-C28)	779		49.9	mg/Kg		03/21/22 09:09	03/21/22 13:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 13:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			03/21/22 09:09	03/21/22 13:41	1
o-Terphenyl	100		70 - 130			03/21/22 09:09	03/21/22 13:41	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	529		24.8	mg/Kg			03/21/22 17:11	5

Client Sample ID: BH02

Lab Sample ID: 890-2104-3

Date Collected: 03/11/22 10:20

Matrix: Solid

Date Received: 03/18/22 11:30

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		03/21/22 07:44	03/21/22 12:42	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 12:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	03/21/22 07:44	03/21/22 12:42	1
1,4-Difluorobenzene (Surr)	107		70 - 130	03/21/22 07:44	03/21/22 12:42	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/21/22 15:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/21/22 15:13	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Client Sample ID: BH02

Lab Sample ID: 890-2104-3

Date Collected: 03/11/22 10:20

Matrix: Solid

Date Received: 03/18/22 11:30

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 12:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9	mg/Kg		03/21/22 09:09	03/21/22 12:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 12:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			03/21/22 09:09	03/21/22 12:17	1
o-Terphenyl	94		70 - 130			03/21/22 09:09	03/21/22 12:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	225		4.96	mg/Kg			03/21/22 17:21	1

Client Sample ID: BH02A

Lab Sample ID: 890-2104-4

Date Collected: 03/11/22 10:30

Matrix: Solid

Date Received: 03/18/22 11:30

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			03/21/22 07:44	03/21/22 13:03	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/21/22 07:44	03/21/22 13:03	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/21/22 15:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/21/22 15:13	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		03/21/22 09:09	03/21/22 14:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/21/22 09:09	03/21/22 14:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/21/22 09:09	03/21/22 14:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			03/21/22 09:09	03/21/22 14:02	1
o-Terphenyl	101		70 - 130			03/21/22 09:09	03/21/22 14:02	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Client Sample ID: BH02A

Lab Sample ID: 890-2104-4

Date Collected: 03/11/22 10:30

Matrix: Solid

Date Received: 03/18/22 11:30

Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.3		5.04	mg/Kg			03/21/22 17:32	1

Client Sample ID: BH03

Lab Sample ID: 890-2104-5

Date Collected: 03/11/22 11:45

Matrix: Solid

Date Received: 03/18/22 11:30

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		03/21/22 07:44	03/21/22 13:23	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/21/22 07:44	03/21/22 13:23	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/21/22 07:44	03/21/22 13:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/21/22 07:44	03/21/22 13:23	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/21/22 07:44	03/21/22 13:23	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/21/22 07:44	03/21/22 13:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			03/21/22 07:44	03/21/22 13:23	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/21/22 07:44	03/21/22 13:23	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/21/22 15:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/21/22 15:13	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		03/21/22 09:09	03/21/22 14:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 14:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 14:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			03/21/22 09:09	03/21/22 14:23	1
o-Terphenyl	95		70 - 130			03/21/22 09:09	03/21/22 14:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92.3		4.97	mg/Kg			03/21/22 17:42	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Client Sample ID: BH3A

Lab Sample ID: 890-2104-6

Date Collected: 03/11/22 11:55

Matrix: Solid

Date Received: 03/18/22 11:30

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	03/21/22 07:44	03/21/22 13:44	1
1,4-Difluorobenzene (Surr)	109		70 - 130	03/21/22 07:44	03/21/22 13:44	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			03/21/22 15:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/21/22 15:13	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		03/21/22 09:09	03/21/22 14:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/21/22 09:09	03/21/22 14:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/21/22 09:09	03/21/22 14:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	03/21/22 09:09	03/21/22 14:43	1
o-Terphenyl	105		70 - 130	03/21/22 09:09	03/21/22 14:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.0		4.96	mg/Kg			03/21/22 18:13	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-12586-A-1-F MS	Matrix Spike	103	112
880-12586-A-1-G MSD	Matrix Spike Duplicate	102	110
890-2104-1	BH01	103	109
890-2104-2	BH01A	101	110
890-2104-3	BH02	102	107
890-2104-4	BH02A	107	109
890-2104-5	BH03	104	109
890-2104-6	BH3A	108	109
LCS 880-21977/1-A	Lab Control Sample	103	110
LCSD 880-21977/2-A	Lab Control Sample Dup	102	109
MB 880-21977/5-A	Method Blank	101	103
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)
890-2104-1	BH01	84	100
890-2104-2	BH01A	85	100
890-2104-3	BH02	80	94
890-2104-3 MS	BH02	74	80
890-2104-3 MSD	BH02	76	82
890-2104-4	BH02A	85	101
890-2104-5	BH03	78	95
890-2104-6	BH3A	86	105
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-21982/2-A	Lab Control Sample	94	111
LCSD 880-21982/3-A	Lab Control Sample Dup	96	116
MB 880-21982/1-A	Method Blank	85	105
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21977/5-A

Matrix: Solid

Analysis Batch: 21978

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21977

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 11:19	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 11:19	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 11:19	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/21/22 07:44	03/21/22 11:19	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 11:19	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/21/22 07:44	03/21/22 11:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	03/21/22 07:44	03/21/22 11:19	1
1,4-Difluorobenzene (Surr)	103		70 - 130	03/21/22 07:44	03/21/22 11:19	1

Lab Sample ID: LCS 880-21977/1-A

Matrix: Solid

Analysis Batch: 21978

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21977

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09387		mg/Kg		94	70 - 130
Toluene	0.100	0.09339		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09526		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1971		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09610		mg/Kg		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 880-21977/2-A

Matrix: Solid

Analysis Batch: 21978

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21977

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09279		mg/Kg		93	70 - 130	1	35
Toluene	0.100	0.09258		mg/Kg		93	70 - 130	1	35
Ethylbenzene	0.100	0.09512		mg/Kg		95	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.1968		mg/Kg		98	70 - 130	0	35
o-Xylene	0.100	0.09589		mg/Kg		96	70 - 130	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-12586-A-1-F MS

Matrix: Solid

Analysis Batch: 21978

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 21977

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U	0.0998	0.09690		mg/Kg		97	70 - 130
Toluene	<0.00198	U	0.0998	0.09470		mg/Kg		95	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

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

Lab Sample ID: 880-12586-A-1-F MS

Matrix: Solid

Analysis Batch: 21978

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 21977

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U	0.0998	0.09716		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00396	U	0.200	0.2018		mg/Kg		101	70 - 130
o-Xylene	<0.00198	U	0.0998	0.09862		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: 880-12586-A-1-G MSD

Matrix: Solid

Analysis Batch: 21978

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 21977

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.09510		mg/Kg		95	70 - 130	2	35
Toluene	<0.00198	U	0.100	0.09393		mg/Kg		94	70 - 130	1	35
Ethylbenzene	<0.00198	U	0.100	0.09588		mg/Kg		96	70 - 130	1	35
m-Xylene & p-Xylene	<0.00396	U	0.200	0.1992		mg/Kg		100	70 - 130	1	35
o-Xylene	<0.00198	U	0.100	0.09720		mg/Kg		97	70 - 130	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

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

Lab Sample ID: MB 880-21982/1-A

Matrix: Solid

Analysis Batch: 21983

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21982

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		03/21/22 09:09	03/21/22 10:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/21/22 09:09	03/21/22 10:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/21/22 09:09	03/21/22 10:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	03/21/22 09:09	03/21/22 10:51	1
o-Terphenyl	105		70 - 130	03/21/22 09:09	03/21/22 10:51	1

Lab Sample ID: LCS 880-21982/2-A

Matrix: Solid

Analysis Batch: 21983

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	852.9		mg/Kg		85	70 - 130
Diesel Range Organics (Over C10-C28)	1000	924.6		mg/Kg		92	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

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

Lab Sample ID: LCS 880-21982/2-A

Matrix: Solid

Analysis Batch: 21983

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21982

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	94		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: LCSD 880-21982/3-A

Matrix: Solid

Analysis Batch: 21983

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21982

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	990.5		mg/Kg		99	70 - 130	15	20
Diesel Range Organics (Over C10-C28)			1000	1045		mg/Kg		105	70 - 130	12	20
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	116		70 - 130								

Lab Sample ID: 890-2104-3 MS

Matrix: Solid

Analysis Batch: 21983

Client Sample ID: BH02

Prep Type: Total/NA

Prep Batch: 21982

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	809.3		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	723.2	F1	mg/Kg		69	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	74		70 - 130								
o-Terphenyl	80		70 - 130								

Lab Sample ID: 890-2104-3 MSD

Matrix: Solid

Analysis Batch: 21983

Client Sample ID: BH02

Prep Type: Total/NA

Prep Batch: 21982

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	836.1		mg/Kg		81	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	747.9		mg/Kg		71	70 - 130	3	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	76		70 - 130								
o-Terphenyl	82		70 - 130								

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22074/1-A

Matrix: Solid

Analysis Batch: 22108

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			03/21/22 16:09	1

Lab Sample ID: LCS 880-22074/2-A

Matrix: Solid

Analysis Batch: 22108

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	257.1		mg/Kg		103	90 - 110

Lab Sample ID: LCSD 880-22074/3-A

Matrix: Solid

Analysis Batch: 22108

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	274.5		mg/Kg		110	90 - 110	7	20

Lab Sample ID: 890-2104-1 MS

Matrix: Solid

Analysis Batch: 22108

Client Sample ID: BH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	578		250	811.0		mg/Kg		93	90 - 110

Lab Sample ID: 890-2104-1 MSD

Matrix: Solid

Analysis Batch: 22108

Client Sample ID: BH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	578		250	807.0		mg/Kg		92	90 - 110	0	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

GC VOA

Prep Batch: 21977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	5035	
890-2104-2	BH01A	Total/NA	Solid	5035	
890-2104-3	BH02	Total/NA	Solid	5035	
890-2104-4	BH02A	Total/NA	Solid	5035	
890-2104-5	BH03	Total/NA	Solid	5035	
890-2104-6	BH3A	Total/NA	Solid	5035	
MB 880-21977/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21977/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21977/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12586-A-1-F MS	Matrix Spike	Total/NA	Solid	5035	
880-12586-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 21978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	8021B	21977
890-2104-2	BH01A	Total/NA	Solid	8021B	21977
890-2104-3	BH02	Total/NA	Solid	8021B	21977
890-2104-4	BH02A	Total/NA	Solid	8021B	21977
890-2104-5	BH03	Total/NA	Solid	8021B	21977
890-2104-6	BH3A	Total/NA	Solid	8021B	21977
MB 880-21977/5-A	Method Blank	Total/NA	Solid	8021B	21977
LCS 880-21977/1-A	Lab Control Sample	Total/NA	Solid	8021B	21977
LCSD 880-21977/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21977
880-12586-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	21977
880-12586-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21977

Analysis Batch: 22093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	Total BTEX	
890-2104-2	BH01A	Total/NA	Solid	Total BTEX	
890-2104-3	BH02	Total/NA	Solid	Total BTEX	
890-2104-4	BH02A	Total/NA	Solid	Total BTEX	
890-2104-5	BH03	Total/NA	Solid	Total BTEX	
890-2104-6	BH3A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	8015NM Prep	
890-2104-2	BH01A	Total/NA	Solid	8015NM Prep	
890-2104-3	BH02	Total/NA	Solid	8015NM Prep	
890-2104-4	BH02A	Total/NA	Solid	8015NM Prep	
890-2104-5	BH03	Total/NA	Solid	8015NM Prep	
890-2104-6	BH3A	Total/NA	Solid	8015NM Prep	
MB 880-21982/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-21982/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-21982/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2104-3 MS	BH02	Total/NA	Solid	8015NM Prep	
890-2104-3 MSD	BH02	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

GC Semi VOA

Analysis Batch: 21983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	8015B NM	21982
890-2104-2	BH01A	Total/NA	Solid	8015B NM	21982
890-2104-3	BH02	Total/NA	Solid	8015B NM	21982
890-2104-4	BH02A	Total/NA	Solid	8015B NM	21982
890-2104-5	BH03	Total/NA	Solid	8015B NM	21982
890-2104-6	BH3A	Total/NA	Solid	8015B NM	21982
MB 880-21982/1-A	Method Blank	Total/NA	Solid	8015B NM	21982
LCS 880-21982/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	21982
LCSD 880-21982/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	21982
890-2104-3 MS	BH02	Total/NA	Solid	8015B NM	21982
890-2104-3 MSD	BH02	Total/NA	Solid	8015B NM	21982

Analysis Batch: 22086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	8015 NM	
890-2104-2	BH01A	Total/NA	Solid	8015 NM	
890-2104-3	BH02	Total/NA	Solid	8015 NM	
890-2104-4	BH02A	Total/NA	Solid	8015 NM	
890-2104-5	BH03	Total/NA	Solid	8015 NM	
890-2104-6	BH3A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Soluble	Solid	DI Leach	
890-2104-2	BH01A	Soluble	Solid	DI Leach	
890-2104-3	BH02	Soluble	Solid	DI Leach	
890-2104-4	BH02A	Soluble	Solid	DI Leach	
890-2104-5	BH03	Soluble	Solid	DI Leach	
890-2104-6	BH3A	Soluble	Solid	DI Leach	
MB 880-22074/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22074/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22074/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2104-1 MS	BH01	Soluble	Solid	DI Leach	
890-2104-1 MSD	BH01	Soluble	Solid	DI Leach	

Analysis Batch: 22108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Soluble	Solid	300.0	22074
890-2104-2	BH01A	Soluble	Solid	300.0	22074
890-2104-3	BH02	Soluble	Solid	300.0	22074
890-2104-4	BH02A	Soluble	Solid	300.0	22074
890-2104-5	BH03	Soluble	Solid	300.0	22074
890-2104-6	BH3A	Soluble	Solid	300.0	22074
MB 880-22074/1-A	Method Blank	Soluble	Solid	300.0	22074
LCS 880-22074/2-A	Lab Control Sample	Soluble	Solid	300.0	22074
LCSD 880-22074/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22074
890-2104-1 MS	BH01	Soluble	Solid	300.0	22074
890-2104-1 MSD	BH01	Soluble	Solid	300.0	22074

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Client Sample ID: BH01

Lab Sample ID: 890-2104-1

Date Collected: 03/11/22 09:35

Matrix: Solid

Date Received: 03/18/22 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 12:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 13:20	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 16:40	SC	XEN MID

Client Sample ID: BH01A

Lab Sample ID: 890-2104-2

Date Collected: 03/11/22 09:40

Matrix: Solid

Date Received: 03/18/22 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 12:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 13:41	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		5	22108	03/21/22 17:11	SC	XEN MID

Client Sample ID: BH02

Lab Sample ID: 890-2104-3

Date Collected: 03/11/22 10:20

Matrix: Solid

Date Received: 03/18/22 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 12:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 12:17	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 17:21	SC	XEN MID

Client Sample ID: BH02A

Lab Sample ID: 890-2104-4

Date Collected: 03/11/22 10:30

Matrix: Solid

Date Received: 03/18/22 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 13:03	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Client Sample ID: BH02A

Lab Sample ID: 890-2104-4

Date Collected: 03/11/22 10:30

Matrix: Solid

Date Received: 03/18/22 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 17:32	SC	XEN MID

Client Sample ID: BH03

Lab Sample ID: 890-2104-5

Date Collected: 03/11/22 11:45

Matrix: Solid

Date Received: 03/18/22 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 13:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 14:23	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 17:42	SC	XEN MID

Client Sample ID: BH3A

Lab Sample ID: 890-2104-6

Date Collected: 03/11/22 11:55

Matrix: Solid

Date Received: 03/18/22 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 13:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 14:43	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 18:13	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Laboratory: Eurofins Midland

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

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

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

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1
SDG: 31403236.029 Task #09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2104-1	BH01	Solid	03/11/22 09:35	03/18/22 11:30	1
890-2104-2	BH01A	Solid	03/11/22 09:40	03/18/22 11:30	2
890-2104-3	BH02	Solid	03/11/22 10:20	03/18/22 11:30	1
890-2104-4	BH02A	Solid	03/11/22 10:30	03/18/22 11:30	2
890-2104-5	BH03	Solid	03/11/22 11:45	03/18/22 11:30	1
890-2104-6	BH3A	Solid	03/11/22 11:55	03/18/22 11:30	2



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)

Chain of Custody

Work Order No: _____

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Page 1 of 1

3/21/2022

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

Program: <input type="checkbox"/> PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: Reporting Level I <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/> Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	
--	--

Project Name:	Corral Canyon 5-32	Turn Around	
Project Number:	31403236.029	Task #	09.02
P.O. Number:		Rush:	24HR
Sampler's Name:	Alexis Castro	Due Date:	

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Well Ice:	(Yes) No
Temperature (°C):	0.6/0.1	Thermometer ID	JVM-001	
Received Inact:	Yes No	Correction Factor:	-0.2	
Cooler Custody Seals:	Yes No	Total Containers:		
Sample Custody Seals:	Yes No			



890-2104 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers									
					TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)							
BH01	S	3/11/2022	0935	1'	X	X	X							
BH01A	S	3/11/2022	0940	2'	X	X	X							
BH02	S	3/11/2022	1020	1'	X	X	X							
BH02A	S	3/11/2022	1030	2'	X	X	X							
BH03	S	3/11/2022	1145	1'	X	X	X							
BH03A	S	3/11/2022	1155	2'	X	X	X							
AC														

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	3.18.22 11:50			

Revised Date 05/18/2018 Rev. 2018.1

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Eurofins Carlsbad

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

Chain of Custody Record

Environment Testing
America

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No:					
Client Contact:	Phone:		Kramer, Jessica		890-675-1					
Shipping/Receiving			E-Mail: jessica.kramer@eurofins.com	State or Origin:	Page 1 of 1					
Company:			Accreditations Required (See note):	New Mexico						
Eurofins Environment Testing South Cent			NEIAP - Louisiana, NEIAP - Texas							
Address	Due Date Requested				Job #:					
1211 W Florida Ave.	3/21/2022				890-2104-1					
City:	TAT Requested (days):									
Midland										
State, Zip:										
TX, 79701										
Phone:	PO #:									
432-704-5440(Tel)										
Email:	W/O #:									
Project Name:	Project #:									
Corral Canyon 5-32	89000004									
Site:	SSOV#:									
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Solid, O=Other, BI=Tissue Anal)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note:
BH01 (890-2104-1)	3/11/22	09 35	Mountain		Solid	X	X	X	X	
BH01A (890-2104-2)	3/11/22	09 40	Mountain		Solid	X	X	X	X	
BH02 (890-2104-3)	3/11/22	10 20	Mountain		Solid	X	X	X	X	
BH02A (890-2104-4)	3/11/22	10 30	Mountain		Solid	X	X	X	X	
BH03 (890-2104-5)	3/11/22	11 45	Mountain		Solid	X	X	X	X	
BH3A (890-2104-6)	3/11/22	11 55	Mountain		Solid	X	X	X	X	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted 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/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.</p>										
Possible Hazard Identification										
Unconfirmed										
Deliverable Requested I II III IV Other (specify)										
Primary Deliverable Rank 2										
Special Instructions/QAC Requirements										
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)										
Empty Kit Relinquished by:										
Relinquished by: <i>W 31822</i>										
Relinquished by:										
Relinquished by:										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No										
Custody Seal No										
Cooler Temperature(s) °C and Other Remarks										



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2127-1

Laboratory Sample Delivery Group: 31403236.029 task 09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Kalei Jennings

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

Authorized for release by:
3/24/2022 8:02:54 PM

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

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

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

Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1
SDG: 31403236.029 task 09.02

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1
SDG: 31403236.029 task 09.02

Client Sample ID: SS04

Lab Sample ID: 890-2127-1

Date Collected: 03/22/22 09:40

Matrix: Solid

Date Received: 03/22/22 16:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/22 07:30	03/24/22 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	03/24/22 07:30	03/24/22 18:55	1
1,4-Difluorobenzene (Surr)	95		70 - 130	03/24/22 07:30	03/24/22 18:55	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/24/22 19:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/24/22 19:46	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		03/24/22 08:49	03/24/22 15:20	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/24/22 08:49	03/24/22 15:20	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/24/22 08:49	03/24/22 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130	03/24/22 08:49	03/24/22 15:20	1
o-Terphenyl	125		70 - 130	03/24/22 08:49	03/24/22 15:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.7		5.02	mg/Kg			03/24/22 17:28	1

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1
SDG: 31403236.029 task 09.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-21823/5-A

Matrix: Solid

Analysis Batch: 22265

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21823

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/22 07:30	03/24/22 17:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	03/24/22 07:30	03/24/22 17:25	1
1,4-Difluorobenzene (Surr)	102		70 - 130	03/24/22 07:30	03/24/22 17:25	1

Lab Sample ID: LCS 880-21823/1-A

Matrix: Solid

Analysis Batch: 22265

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21823

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09555		mg/Kg		96	70 - 130
Toluene	0.100	0.09727		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.1036		mg/Kg		104	70 - 130
m-Xylene & p-Xylene	0.200	0.2413		mg/Kg		121	70 - 130
o-Xylene	0.100	0.1175		mg/Kg		117	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-21823/2-A

Matrix: Solid

Analysis Batch: 22265

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21823

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08471		mg/Kg		85	70 - 130	12	35
Toluene	0.100	0.08475		mg/Kg		85	70 - 130	14	35
Ethylbenzene	0.100	0.08895		mg/Kg		89	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.2074		mg/Kg		104	70 - 130	15	35
o-Xylene	0.100	0.1028		mg/Kg		103	70 - 130	13	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-12762-A-1-E MS

Matrix: Solid

Analysis Batch: 22265

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 21823

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00202	U	0.0994	0.09084		mg/Kg		91	70 - 130
Toluene	<0.00202	U	0.0994	0.09058		mg/Kg		91	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1
SDG: 31403236.029 task 09.02

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

Lab Sample ID: LCS 880-22246/2-A

Matrix: Solid

Analysis Batch: 22241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 22246

	LCS %Recovery	LCS Qualifier	Limits
Surrogate			
1-Chlorooctane	114		70 - 130
o-Terphenyl	119		70 - 130

Lab Sample ID: LCSD 880-22246/3-A

Matrix: Solid

Analysis Batch: 22241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 22246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	949.6		mg/Kg		95	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	1220		mg/Kg		122	70 - 130	4	20

	LCSD %Recovery	LCSD Qualifier	Limits
Surrogate			
1-Chlorooctane	119		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 880-12790-A-9-C MS

Matrix: Solid

Analysis Batch: 22241

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 22246

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	998	970.1		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	998	1060		mg/Kg		101	70 - 130		

	MS %Recovery	MS Qualifier	Limits
Surrogate			
1-Chlorooctane	102		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: 880-12790-A-9-D MSD

Matrix: Solid

Analysis Batch: 22241

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 22246

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	<49.8	U	999	989.4		mg/Kg		99	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.8	U	999	935.7		mg/Kg		89	70 - 130	12	20

	MSD %Recovery	MSD Qualifier	Limits
Surrogate			
1-Chlorooctane	94		70 - 130
o-Terphenyl	77		70 - 130

Eurofins Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1
SDG: 31403236.029 task 09.02

GC VOA

Prep Batch: 21823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	5035	
MB 880-21823/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21823/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21823/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12762-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-12762-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 22265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	8021B	21823
MB 880-21823/5-A	Method Blank	Total/NA	Solid	8021B	21823
LCS 880-21823/1-A	Lab Control Sample	Total/NA	Solid	8021B	21823
LCSD 880-21823/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21823
880-12762-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	21823
880-12762-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21823

Analysis Batch: 22322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 22241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	8015B NM	22246
MB 880-22246/1-A	Method Blank	Total/NA	Solid	8015B NM	22246
LCS 880-22246/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22246
LCSD 880-22246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22246
880-12790-A-9-C MS	Matrix Spike	Total/NA	Solid	8015B NM	22246
880-12790-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	22246

Prep Batch: 22246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-22246/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22246/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12790-A-9-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12790-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 22314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Soluble	Solid	DI Leach	
MB 880-22262/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22262/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22262/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1
SDG: 31403236.029 task 09.02

Client Sample ID: SS04
Date Collected: 03/22/22 09:40
Date Received: 03/22/22 16:05

Lab Sample ID: 890-2127-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21823	03/24/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	22265	03/24/22 18:55	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1	22322	03/24/22 19:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22314	03/24/22 19:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22246	03/24/22 08:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	22241	03/24/22 15:20	AJ	XEN MID
Soluble	Leach	DI Leach			22262	03/24/22 10:45	SC	XEN MID
Soluble	Analysis	300.0		1	22267	03/24/22 17:28	SC	XEN MID

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

Method Summary

Client: WSP USA Inc.
Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1
SDG: 31403236.029 task 09.02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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



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) 585-4443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)
Hobbs, NM (575-392-7550)

Work Order No: _____

Page 1 of 1

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Chain of Custody

Project Manager:	Katei Jennings	Bill to: (if different)	Adrian Baker
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:	432 704 5178	Email:	Katei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com.

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

[illegible]

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	1.2/1.0				Thermometer ID		
Received Intact:	Yes No				Correction Factor:		
Cooler Custody Seals:	Yes No (N/A)				Total Containers:		
Sample Custody Seals:	Yes No (N/A)						

Number of Containers

(EPA 8015)

(EPA 0=8021)

(EPA 300.0)

890-2127 Chain of Custody

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

[illegible]

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Megan</i>	<i>Celia</i>	3 22 22 160	25		
3		4			
5		6			

Revised Date: 05/18 Nov. 2013

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2127-1

SDG Number: 31403236.029 task 09.02

Login Number: 2127

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

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 95229

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 95229
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	4/20/2022