

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	NAPP2118934484
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Shelby Pennington	Contact Telephone 281-723-9353
Contact email shelby.pennington@exxonmobil.com	Incident # (assigned by OCD)
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

### Location of Release Source

Latitude 32.31903      Longitude -103.94152  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Nash 39	Site Type Tank Battery
Date Release Discovered 07/03/2021	API# (if applicable)

Unit Letter	Section	Township	Range	County
K	12	23S	29E	Eddy

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 2.88	Volume Recovered (bbls) 2.78
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 573.77	Volume Recovered (bbls) 552.23
	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	Nash 39 PW tanks caught fire due to lightning strike. Fire department was dispatched immediately and extinguished the fire. Vacuum trucks recovered standing fluids. A third-party contractor has been retained for remediation activities.	
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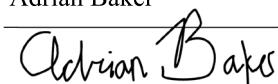
<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	If YES, for what reason(s) does the responsible party consider this a major release?  A release that results in a fire or is the result of a fire.
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p> <p>Yes, by Garrett Green to Mike Bratcher'; 'Victoria Venegas'; 'Rob Hamlet'; 'camorgan@blm.gov'; 'blm_nm_cfo_spill@blm.gov' on Sunday, July 4, 2021 10:57 AM via email.</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 checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" 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:  NA

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

<p>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.</p>	
Printed Name: Adrian Baker Signature:  email: adrian.baker@exxonmobil.com	Title: SSHE Coordinator Date: 7/8/2021 Telephone: 432-236-3808
<p><b>OCD Only</b></p> <p>Received by: Ramona Marcus</p>	

<b>Location:</b>	<b>Nash 39 Battery</b>	
<b>Spill Date:</b>	<b>7/3/2021</b>	
<b>Area 1</b>		
Approximate Area =	12966.00	sq. ft.
Average Saturation (or depth) of spill =	0.75	inches
Average Porosity Factor =	0.15	
<b>VOLUME OF LEAK</b>		
Total Crude Oil =	2.88	bbls
Total Produced Water =	573.77	bbls
<b>TOTAL VOLUME OF LEAK</b>		
Total Crude Oil =	2.88	bbls
Total Produced Water =	573.77	bbls
<b>TOTAL VOLUME RECOVERED</b>		
Total Crude Oil =	2.78	bbls
Total Produced Water =	552.23	bbls

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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>&lt;50</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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

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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: \_\_\_\_\_ 01/01/2022 \_\_\_\_\_

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

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

**OCD Only**

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

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

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## Remediation Plan

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

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

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

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

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

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



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

Date: \_\_\_\_\_ 01/01/2022 \_\_\_\_\_

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

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

**OCD Only**

Received by: \_\_\_\_\_ Chad Hensley \_\_\_\_\_ Date: \_\_\_\_\_ 02/18/2022 \_\_\_\_\_

*Released to Imaging: 4/28/2022 12:57:36 PM*

Approved       Approved with Attached Conditions of Approval       Denied       Deferral Approved

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

Date: \_\_\_\_\_ 02/18/2022 \_\_\_\_\_

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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 submissions in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

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

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

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

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

Signature: \_\_\_\_\_ Date: April 18, 2022

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

**OCD Only**

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

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

Closure Approved by: \_\_\_\_\_ Date: 04/28/2022

Printed Name: \_\_\_\_\_ Jennifer Nobui \_\_\_\_\_ Title: \_\_\_\_\_ Environmental Specialist A \_\_\_\_\_



WSP USA

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

April 18, 2022

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

**Re: Closure Request  
Nash 39 Tank Battery  
Incident Number NAPP2118934484  
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 as a follow up to the approved Remediation Work Plan (Work Plan) that was submitted to the New Mexico Oil Conservation Division (NMOCD) on January 1, 2022. This Closure Request details excavation activities completed at the Nash 39 Tank Battery (Site) in Unit K, Section 12, Township 23 South, Range 29 East, in Eddy County, New Mexico following NMOCD approval of the Work Plan. Based on the excavation and soil sampling activities described below, XTO is requesting no further action (NFA) for Incident Number NAPP2118934484.

## BACKGROUND

On July 3, 2021, produced water tanks caught fire due to a lightning strike, resulting in the release of 2.88 barrels (bbls) of crude oil and 573.77 bbls of produced water into the damaged containment and onto the surface of the well pad. A vacuum truck was dispatched to the Site to recover freestanding fluids; approximately 2.78 bbls of crude oil and 552.23 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on July 4, 2021, and a Release Notification Form C-141 (Form C-141) was submitted July 8, 2021. The release was assigned Incident Number NAPP2118934484.

Following delineation of the release extent and collection of background soil samples, XTO submitted a Work Plan to the NMOCD. The Work Plan detailed the delineation activities and proposed excavation of impacted soil to below Site Closure Criteria for hydrocarbons and to below a background chloride concentration of 30,200 mg/kg, based on the proximity to the salt lake. Due to the estimated excavation size, the Work Plan also requested a sampling variance for



the frequency of excavation confirmation samples to every 500 square feet. The Work Plan was approved by NMOCD on February 18, 2022, with the following conditions of approval:

- *The OCD does NOT approve the background chloride concentration of 30,200 mg/kg as closure criteria.*
- *The OCD will accept closure for chlorides at 20,000.*
- *Closure report due 04/18/2022.*

## CLOSURE CRITERIA

The approved Work Plan detailed site characterization 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). Based on the site characterization, the following Closure Criteria applied:

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

## EXCAVATION AND SOIL SAMPLING ACTIVITIES

Between December 6, 2021 and February 28, 2022, WSP personnel were at the Site to oversee excavation of impacted soil as outlined in the approved Work Plan. A background chloride concentration of 20,000 mg/kg chloride was applied to the Site in accordance with the NMOCD conditions of approval.

Excavation activities were completed using a track-mounted backhoe. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a photo ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Following removal of impacted soil, WSP collected 5-point composite soil samples at a frequency of at least every 500 square feet from the floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite floor samples FS01 through FS34 and FS08A were collected from the floor of the excavation at depths ranging from 0.5 feet to 1.5 ft bgs. Due to the shallow depth of the excavation, the floor samples were also representative of the sidewalls. The excavation extent and excavation soil sample locations are presented on Figure 1. Photographic documentation of the excavation activities is included in Attachment 1.

The excavation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC)



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

The excavation area measured approximately 15,680 square feet. A total of approximately 300 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

### **SOIL ANALYTICAL RESULTS**

Laboratory analytical results for excavation floor samples FS01 through FS07, FS08A, and FS09 through FS34 indicated that benzene, BTEX, and TPH concentrations were compliant with the Site Closure Criteria and chloride concentrations were compliant with the NMOCD approved background chloride concentration of 20,000 mg/kg. Floor sample FS08, collected at 0.5 feet bgs, initially exceeded the Closure Criteria for TPH. Additional excavation was completed in this area and subsequent floor sample FS08A, collected at 1.5 feet bgs, was compliant. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included in Attachment 2.

### **CLOSURE REQUEST**

Excavation and soil sampling activities were conducted at the Site as outlined in the approved Work Plan. Based on final excavation sample analytical results compliant with the Site Closure Criteria and the NMOCD approved background chloride concentration, XTO respectfully requests NFA for Incident Number NAPP2118934484. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

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

Kind regards,

A handwritten signature in black ink that reads "Payton Benner".

Payton Benner  
Assistant Consultant, Geologist

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

Aimee Cole  
Sr. Consultant, Environmental Scientist



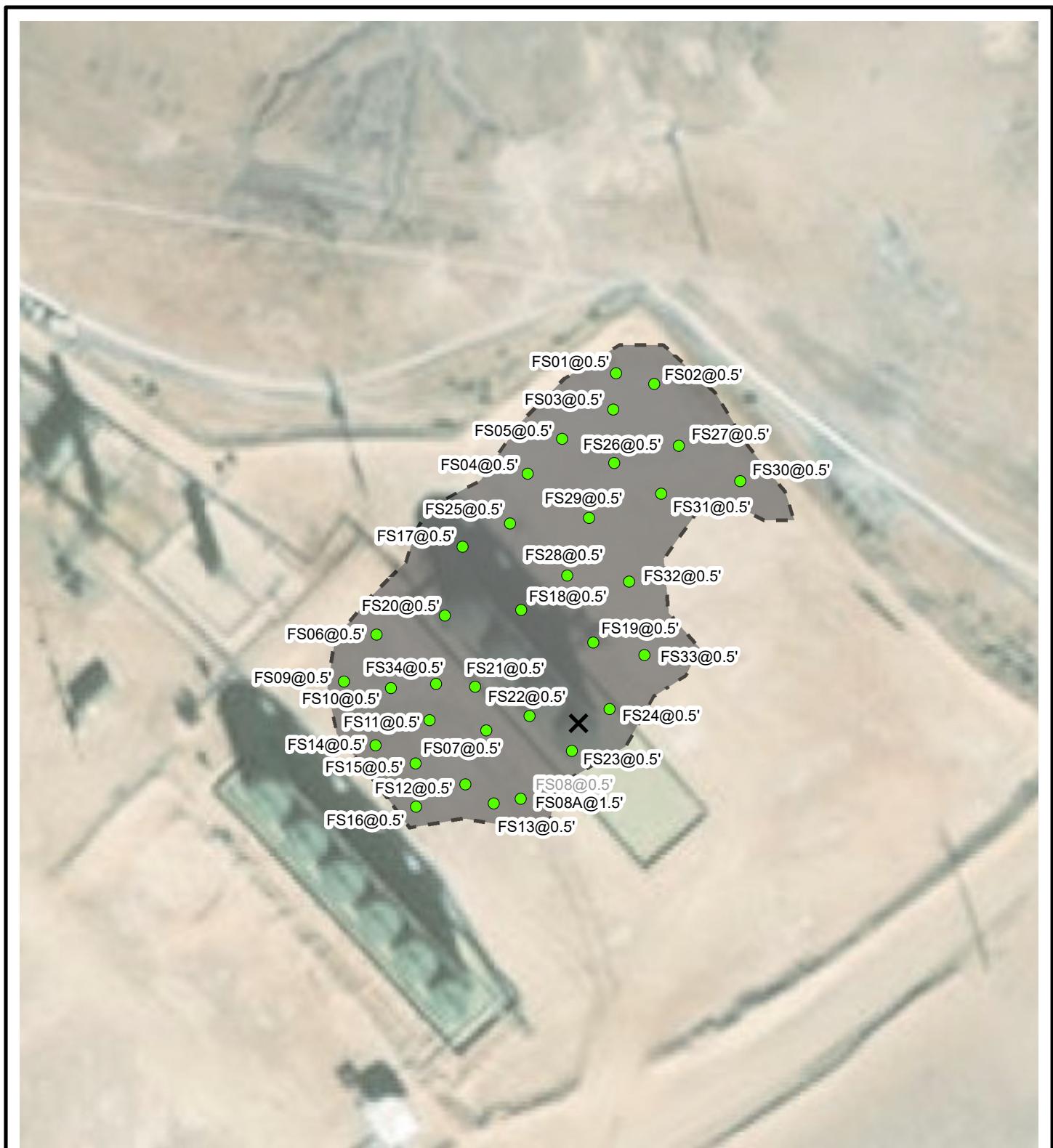
District II  
Page 4

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

Attachments:

Figure 1	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Photographic Log
Attachment 2	Laboratory Analytical Reports

## FIGURES

**LEGEND**

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

NOTE: INCIDENT NUMBER NAPP2118934484  
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)  
 TEXT: INDICATES SOIL REPRESENTED BY SAMPLE  
 THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 50 100  
Feet



**FIGURE 1**  
**EXCAVATION SOIL SAMPLE LOCATIONS**  
**NASH 39 TANK BATTERY**  
**UNIT K SEC 12 T23S R29E**  
**EDDY COUNTY, NEW MEXICO**  
**XTO ENERGY, INC.**

## TABLES

Table 1

**Soil Analytical Results  
Nash 39 Tank Battery  
NAPP2118934484  
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)
<b>NMOCD Table 1 Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Background Chloride Criteria</b>										<b>20,000</b>
<b>Excavation Floor Samples</b>										
FS01	12/07/2021	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	1,120
FS02	12/07/2021	0.5	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	931
FS03	12/7/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,070
FS04	12/07/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,590
FS05	12/07/2021	0.5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	3,630
FS06	12/07/2021	0.5	<0.00200	<0.00400	54.5	<49.9	<49.9	<49.9	54.5	2,740
FS07	12/07/2021	0.5	<0.00199	<0.00398	72.6	<49.9	<49.9	<49.9	72.6	2,750
FS08	12/7/2022	0.5	<0.00201	<0.00402	128	<50.0	<50.0	<50.0	128	1,490
FS08A	02/28/2022	1.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	742
FS09	12/07/2021	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	2,490
FS10	12/07/2021	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	2,450
FS11	12/07/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,790
FS12	12/06/2021	0.5	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	2,050
FS13	12/06/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,940
FS14	12/06/2021	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	2,980
FS15	12/06/2021	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	2,200
FS16	12/06/2021	0.5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	2,520
FS17	12/21/2021	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	2,260
FS18	12/21/2021	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	2,990
FS19	12/21/2021	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	3,040

Table 1

**Soil Analytical Results**  
**Nash 39 Tank Battery**  
**NAPP2118934484**  
**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)
<b>NMOCD Table 1 Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	NE	NE	NE	NE	<b>100</b>	<b>600</b>
<b>Background Chloride Criteria</b>										<b>20,000</b>
FS20	12/21/2021	0.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	1,350
FS21	12/21/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,240
FS22	12/21/2021	0.5	<0.00200	<0.00399	94.7	<49.9	<49.9	<49.9	94.7	3,900
FS23	12/21/2021	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	607
FS24	12/21/2021	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	872
FS25	12/21/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	2,680
FS26	12/21/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	1,090
FS27	12/21/2021	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	1,200
FS28	12/21/2021	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,270
FS29	12/21/2021	0.5	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	1,710
FS30	12/21/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	277
FS31	12/21/2021	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	736
FS32	12/21/2021	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	618
FS33	12/21/2021	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	1,080
FS34	12/21/2021	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	1,920

**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

&lt; - 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: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG		
XTO Energy	Nash 39 Tank Battery Eddy County, New Mexico	NAPP2118934484

Photo No.	Date	
1	December 7, 2021	
Excavation progress facing northwest		



PHOTOGRAPHIC LOG		
XTO Energy	Nash 39 Tank Battery Eddy County, New Mexico	NAPP2118934484

Photo No.	Date	
2	December 7, 2021	
Excavation extent facing northeast		



PHOTOGRAPHIC LOG		
XTO Energy	Nash 39 Tank Battery Eddy County, New Mexico	NAPP2118934484

Photo No.	Date	
3	December 7, 2021	
Excavation extent facing northwest		
		

ATTACHMENT 2: LABORATORY ANALYTICAL REPORTS



eurofins

Environment Testing  
America



## ANALYTICAL REPORT

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

[Laboratory Job ID: 890-1709-1](#)

Laboratory SDG: 31403236.0120.0129 task 05.02

Client Project/Site: Nash Unit 39

Revision: 1

**For:**

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

Attn: Tacoma Morrissey

Authorized for release by:

12/29/2021 10:19:09 AM

Jessica Kramer, Project Manager

(432)704-5440

[jessica.kramer@eurofinset.com](mailto:jessica.kramer@eurofinset.com)

LINKS

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results through

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The  
Expert

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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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: Nash Unit 39

Laboratory Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

### Qualifiers

#### GC VOA

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

#### GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD 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
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

Eurofins Xenco, Carlsbad

**Case Narrative**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Job ID: 890-1709-1****Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative  
890-1709-1****Comments**

No additional comments.

**Revision**

The report being provided is a revision of the original report sent on 12/16/2021. The report (revision 1) is being revised due to: Per client email, revised sample IDs

**Receipt**

The samples were received on 12/14/2021 8:07 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

**GC VOA**

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

**GC Semi VOA**

Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-14794 and analytical batch 880-14897 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-14981 and analytical batch 880-15012 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015B NM: The continuing calibration verification (CCV) associated with batch 880-15012 recovered above the upper control limit for Diesel Range Organics (Over C10-C28) The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 880-15012/73).

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

**General Chemistry**

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

**Organic Prep**

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

**VOA Prep**

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

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS01**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-1**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:17	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:17	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:17	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		12/14/21 10:00	12/14/21 15:17	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:17	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		12/14/21 10:00	12/14/21 15:17	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	109			70 - 130		12/14/21 10:00	12/14/21 15:17	1
1,4-Difluorobenzene (Surr)	103			70 - 130		12/14/21 10:00	12/14/21 15:17	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			12/15/21 14:22	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			12/13/21 12:32	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 F1 F2	50.0	mg/Kg		12/14/21 16:40	12/16/21 11:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U F2	50.0	mg/Kg		12/14/21 16:40	12/16/21 11:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 16:40	12/16/21 11:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			12/14/21 16:40	12/16/21 11:19	1
<i>o</i> -Terphenyl	91		70 - 130			12/14/21 16:40	12/16/21 11:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1120		49.8	mg/Kg			12/15/21 12:43	10

**Client Sample ID: FS02**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-2**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:37	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:37	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:37	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		12/14/21 10:00	12/14/21 15:37	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 15:37	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		12/14/21 10:00	12/14/21 15:37	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	126			70 - 130		12/14/21 10:00	12/14/21 15:37	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS02**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-2**  
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	111		70 - 130	12/14/21 10:00	12/14/21 15:37	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			12/15/21 14:22	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			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/14/21 16:40	12/16/21 12:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/14/21 16:40	12/16/21 12:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/21 16:40	12/16/21 12:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	12/14/21 16:40	12/16/21 12:23	1
o-Terphenyl	115		70 - 130	12/14/21 16:40	12/16/21 12:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	931		49.5	mg/Kg			12/15/21 12:52	10

**Client Sample ID: FS03**

Date Collected: 12/07/21 00:00

Date Received: 12/14/21 08:07

Sample Depth: 0.5

**Lab Sample ID: 890-1709-3**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 15:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 15:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 15:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/14/21 10:00	12/14/21 15:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 15:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/14/21 10:00	12/14/21 15:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	12/14/21 10:00	12/14/21 15:58	1
1,4-Difluorobenzene (Surr)	108		70 - 130	12/14/21 10:00	12/14/21 15:58	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			12/15/21 14:22	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			12/13/21 12:32	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS03**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-3**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/21 16:40	12/16/21 12:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 16:40	12/16/21 12:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 16:40	12/16/21 12:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			12/14/21 16:40	12/16/21 12:44	1
o-Terphenyl	95		70 - 130			12/14/21 16:40	12/16/21 12:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1070		50.1	mg/Kg			12/15/21 13:17	10

**Client Sample ID: FS04**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-4**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 16:18	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 16:18	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 16:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 16:18	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 16:18	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 16:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130			12/14/21 10:00	12/14/21 16:18	1
1,4-Difluorobenzene (Surr)	100		70 - 130			12/14/21 10:00	12/14/21 16:18	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/15/21 14:22	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			12/13/21 12:32	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		12/14/21 14:49	12/15/21 02:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 02:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 02:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			12/14/21 14:49	12/15/21 02:52	1
o-Terphenyl	94		70 - 130			12/14/21 14:49	12/15/21 02:52	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS04**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-4**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1590		49.7	mg/Kg			12/15/21 13:25	10

**Client Sample ID: FS05**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-5**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg				1
Toluene	<0.00198	U	0.00198	mg/Kg				1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg				1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg				1
o-Xylene	<0.00198	U	0.00198	mg/Kg				1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg				1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	124		70 - 130			12/14/21 10:00	12/14/21 17:40	1
1,4-Difluorobenzene (Surr)	101		70 - 130			12/14/21 10:00	12/14/21 17:40	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			12/15/21 14:22	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			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg			12/14/21 14:49	12/15/21 03:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg			12/14/21 14:49	12/15/21 03:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg			12/14/21 14:49	12/15/21 03:12	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
1-Chlorooctane	101		70 - 130			12/14/21 14:49	12/15/21 03:12	1	
<i>o-Terphenyl</i>	95		70 - 130			12/14/21 14:49	12/15/21 03:12	1	

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3630		49.8	mg/Kg			12/15/21 13:50	10

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS06**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-6**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 18:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 18:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 18:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/14/21 10:00	12/14/21 18:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 18:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/14/21 10:00	12/14/21 18:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	12/14/21 10:00	12/14/21 18:01	1
1,4-Difluorobenzene (Surr)	103		70 - 130	12/14/21 10:00	12/14/21 18:01	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			12/15/21 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	54.5		49.9	mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 03:33	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>54.5</b>		49.9	mg/Kg		12/14/21 14:49	12/15/21 03:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 03:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			12/14/21 14:49	12/15/21 03:33	1
<i>o-Terphenyl</i>	111		70 - 130			12/14/21 14:49	12/15/21 03:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2740		49.5	mg/Kg			12/15/21 13:59	10

**Client Sample ID: FS07**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-7**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 18:21	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 18:21	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 18:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 18:21	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 18:21	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 18:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			12/14/21 10:00	12/14/21 18:21	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS07**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-7**  
Matrix: Solid

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

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130	12/14/21 10:00	12/14/21 18:21	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			12/15/21 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.6		49.9	mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 03:54	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>72.6</b>		49.9	mg/Kg		12/14/21 14:49	12/15/21 03:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 03:54	1

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

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	12/14/21 14:49	12/15/21 03:54	1
o-Terphenyl	89		70 - 130	12/14/21 14:49	12/15/21 03:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2750		50.0	mg/Kg			12/15/21 14:07	10

**Client Sample ID: FS08**

Date Collected: 12/07/21 00:00

Date Received: 12/14/21 08:07

Sample Depth: 0.5

**Lab Sample ID: 890-1709-8**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/14/21 10:00	12/14/21 18:42	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/14/21 10:00	12/14/21 18:42	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/14/21 10:00	12/14/21 18:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/14/21 10:00	12/14/21 18:42	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/14/21 10:00	12/14/21 18:42	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/14/21 10:00	12/14/21 18:42	1

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

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	12/14/21 10:00	12/14/21 18:42	1
1,4-Difluorobenzene (Surr)	108		70 - 130	12/14/21 10:00	12/14/21 18:42	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			12/15/21 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	128		50.0	mg/Kg			12/15/21 16:03	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS08**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-8**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 04:15	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>128</b>		50.0	mg/Kg		12/14/21 14:49	12/15/21 04:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 04:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			12/14/21 14:49	12/15/21 04:15	1
o-Terphenyl	92		70 - 130			12/14/21 14:49	12/15/21 04:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1490		50.1	mg/Kg			12/15/21 14:16	10

**Client Sample ID: FS09**  
Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-9**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 19:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 19:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 19:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/14/21 10:00	12/14/21 19:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 19:02	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/14/21 10:00	12/14/21 19:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130			12/14/21 10:00	12/14/21 19:02	1
1,4-Difluorobenzene (Surr)	112		70 - 130			12/14/21 10:00	12/14/21 19:02	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			12/15/21 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			12/15/21 16:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/14/21 14:49	12/15/21 04:37	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>49.8</b>	U	49.8	mg/Kg		12/14/21 14:49	12/15/21 04:37	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/14/21 14:49	12/15/21 04:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			12/14/21 14:49	12/15/21 04:37	1
o-Terphenyl	95		70 - 130			12/14/21 14:49	12/15/21 04:37	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS09**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-9**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2490		49.5	mg/Kg			12/15/21 14:24	10

**Client Sample ID: FS10**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-10**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 19:22	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 19:22	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 19:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		12/14/21 10:00	12/14/21 19:22	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/14/21 10:00	12/14/21 19:22	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		12/14/21 10:00	12/14/21 19:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130			12/14/21 10:00	12/14/21 19:22	1
1,4-Difluorobenzene (Surr)	108		70 - 130			12/14/21 10:00	12/14/21 19:22	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			12/15/21 14:22	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			12/15/21 16:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 04:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 04:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 04:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			12/14/21 14:49	12/15/21 04:58	1
<i>o</i> -Terphenyl	93		70 - 130			12/14/21 14:49	12/15/21 04:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2450		50.4	mg/Kg			12/15/21 14:32	10

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS11**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1709-11**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 19:43	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 19:43	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 19:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 19:43	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 19:43	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 19:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	12/14/21 10:00	12/14/21 19:43	1
1,4-Difluorobenzene (Surr)	89		70 - 130	12/14/21 10:00	12/14/21 19:43	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			12/15/21 14:22	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			12/15/21 16:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 05:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 05:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 05:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	12/14/21 14:49	12/15/21 05:19	1
o-Terphenyl	94		70 - 130	12/14/21 14:49	12/15/21 05:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1790		50.0	mg/Kg			12/15/21 14:41	10

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**Surrogate Summary**

Client: WSP USA Inc.  
 Project/Site: Nash Unit 39

Job ID: 890-1709-1  
 SDG: 31403236.0120.0129 task 05.02

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-1699-A-1-A MS	Matrix Spike	103	99
890-1699-A-1-B MSD	Matrix Spike Duplicate	107	104
890-1709-1	FS01	109	103
890-1709-2	FS02	126	111
890-1709-3	FS03	122	108
890-1709-4	FS04	116	100
890-1709-5	FS05	124	101
890-1709-6	FS06	123	103
890-1709-7	FS07	123	88
890-1709-8	FS08	116	108
890-1709-9	FS09	137 S1+	112
890-1709-10	FS10	123	108
890-1709-11	FS11	126	89
LCS 880-14660/1-A	Lab Control Sample	99	105
LCSD 880-14660/2-A	Lab Control Sample Dup	104	108
MB 880-14660/5-A	Method Blank	117	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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-1700-A-1-G MS	Matrix Spike	89	85
890-1700-A-1-H MSD	Matrix Spike Duplicate	93	83
890-1709-1	FS01	91	91
890-1709-1 MS	FS01	84	86
890-1709-1 MSD	FS01	105	106
890-1709-2	FS02	114	115
890-1709-3	FS03	95	95
890-1709-4	FS04	99	94
890-1709-5	FS05	101	95
890-1709-6	FS06	112	111
890-1709-7	FS07	99	89
890-1709-8	FS08	97	92
890-1709-9	FS09	106	95
890-1709-10	FS10	104	93
890-1709-11	FS11	105	94
890-1713-A-1-D MS	Matrix Spike	72	76
890-1713-A-1-E MSD	Matrix Spike Duplicate	74	77
LCS 880-14981/2-A	Lab Control Sample	78	81
LCSD 880-14981/3-A	Lab Control Sample Dup	75	82
MB 880-14981/1-A	Method Blank	105	123

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Xenco, Carlsbad

**Surrogate Summary**

Client: WSP USA Inc.  
 Project/Site: Nash Unit 39

Job ID: 890-1709-1  
 SDG: 31403236.0120.0129 task 05.02

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)****Matrix: Solid****Prep Type: Total/NA**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Percent Surrogate Recovery (Acceptance Limits)</b>		
		<b>1CO2</b> <b>(70-130)</b>	<b>OTPH2</b> <b>(70-130)</b>	
LCS 880-14782/2-A	Lab Control Sample	103	91	
LCS 880-14794/2-A	Lab Control Sample	115	119	
LCSD 880-14782/3-A	Lab Control Sample Dup	120	111	
LCSD 880-14794/3-A	Lab Control Sample Dup	102	109	
MB 880-14782/1-A	Method Blank	91	89	
MB 880-14794/1-A	Method Blank	102	104	

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Eurofins Xenco, Carlsbad

**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC)****Lab Sample ID: MB 880-14660/5-A****Matrix: Solid****Analysis Batch: 14700**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
Toluene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	12/14/21 07:30	12/14/21 10:41		1

**Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 14660****Lab Sample ID: LCS 880-14660/1-A****Matrix: Solid****Analysis Batch: 14700**

Analyte	MB	MB	Limits	Unit	D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
4-Bromofluorobenzene (Surr)	117		70 - 130		12/14/21 07:30	12/14/21 10:41		1
1,4-Difluorobenzene (Surr)	102		70 - 130		12/14/21 07:30	12/14/21 10:41		1

**Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 14660****Lab Sample ID: LCSD 880-14660/2-A****Matrix: Solid****Analysis Batch: 14700**

Analyte	LCSD	LCSD	Limits	Unit	D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
Benzene	99		70 - 130		86	70 - 130		13
Toluene	105		70 - 130		79	70 - 130		14
Ethylbenzene					78	70 - 130		
m-Xylene & p-Xylene					79	70 - 130		
o-Xylene					78	70 - 130		

**Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 14660****Lab Sample ID: 890-1699-A-1-B MSD****Matrix: Solid****Analysis Batch: 14700**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						Added		
Benzene	0.0370		0.101	0.09777		mg/Kg				
Toluene	0.0642		0.101	0.09286		mg/Kg				

**Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 14660**

**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

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

Lab Sample ID: 890-1699-A-1-B MSD				Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 14700				Prep Batch: 14660							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Ethylbenzene	0.00482		0.101	0.09246		mg/Kg					
m-Xylene & p-Xylene	0.0144		0.201	0.1911		mg/Kg					
o-Xylene	0.00334		0.101	0.09407		mg/Kg					
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	107		70 - 130								
1,4-Difluorobenzene (Surr)	104		70 - 130								

**Lab Sample ID: 890-1699-A-1-A MS**

Matrix: Solid  
Analysis Batch: 14700

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

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-14782/1-A				Client Sample ID: Method Blank							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 14716				Prep Batch: 14782							
Analyte	MB Result	MB Qualifier	MB RL	Unit	D	Prepared	Analyzed	Dil Fac			
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/14/21 20:54		1		
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/14/21 20:54		1		
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/14/21 20:54		1		
Surrogate	MB %Recovery	MB Qualifier	MB Limits			Prepared	Analyzed	Dil Fac			
1-Chlorooctane	91		70 - 130			12/14/21 14:49	12/14/21 20:54		1		
o-Terphenyl	89		70 - 130			12/14/21 14:49	12/14/21 20:54		1		

**Lab Sample ID: LCS 880-14782/2-A**

Matrix: Solid  
Analysis Batch: 14716

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 14782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Gasoline Range Organics (GRO)-C6-C10	1000	966.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)	1000	944.6		mg/Kg		94	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits				
1-Chlorooctane	103		70 - 130				
o-Terphenyl	91		70 - 130				

Eurofins Xenco, Carlsbad

**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Lab Sample ID: LCSD 880-14782/3-A****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 14782**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1015		mg/Kg		102	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1024		mg/Kg		102	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	111		70 - 130

**Lab Sample ID: 890-1700-A-1-G MS****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Matrix Spike****Prep Type: Total/NA****Prep Batch: 14782**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	899.8		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	917.4		mg/Kg		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	85		70 - 130

**Lab Sample ID: 890-1700-A-1-H MSD****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 14782**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	902.0		mg/Kg		88	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	924.2		mg/Kg		93	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	83		70 - 130

**Lab Sample ID: MB 880-14794/1-A****Matrix: Solid****Analysis Batch: 14897****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 14794**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/21 16:40	12/16/21 10:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 16:40	12/16/21 10:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 16:40	12/16/21 10:15	1

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

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

Lab Sample ID: MB 880-14794/1-A

Matrix: Solid

Analysis Batch: 14897

Surrogate	MB	MB	%Recovery	Qualifier	Limits
1-Chlorooctane		102			70 - 130
<i>o</i> -Terphenyl		104			70 - 130

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14794

Lab Sample ID: LCS 880-14794/2-A

Matrix: Solid

Analysis Batch: 14897

Analyte	LCS	LCS	Spike Added	Result	LCS Qualifier	Unit	D	%Rec.	Lim.
Gasoline Range Organics (GRO)-C6-C10			1000	1027		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1062		mg/Kg		106	70 - 130

Surrogate	LC	LC	%Recovery	Qualifier	Limits
1-Chlorooctane		115			70 - 130
<i>o</i> -Terphenyl		119			70 - 130

Lab Sample ID: LCSD 880-14794/3-A

Matrix: Solid

Analysis Batch: 14897

Analyte	LCS	LCS	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
Gasoline Range Organics (GRO)-C6-C10			1000	898.3		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)			1000	880.0		mg/Kg		88	70 - 130

Surrogate	LC	LC	%Recovery	Qualifier	Limits
1-Chlorooctane		102			70 - 130
<i>o</i> -Terphenyl		109			70 - 130

Lab Sample ID: 890-1709-1 MS

Matrix: Solid

Analysis Batch: 14897

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	RPD
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	996	916.1		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U F2	996	978.6		mg/Kg		97	70 - 130

Surrogate	MS	MS	%Recovery	Qualifier	Limits
1-Chlorooctane		84			70 - 130
<i>o</i> -Terphenyl		86			70 - 130

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 14794

**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Lab Sample ID: 890-1709-1 MSD****Matrix: Solid****Analysis Batch: 14897****Client Sample ID: FS01****Prep Type: Total/NA****Prep Batch: 14794**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	995	1433	F1 F2	mg/Kg	142	70 - 130	44	20
Diesel Range Organics (Over C10-C28)	<50.0	U F2	995	1226	F2	mg/Kg	122	70 - 130	22	20
Surrogate	%Recovery	MSD Qualifier	MSD Limits							
1-Chlorooctane	105		70 - 130							
o-Terphenyl	106		70 - 130							

**Lab Sample ID: MB 880-14981/1-A****Matrix: Solid****Analysis Batch: 15012****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 14981**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	12/16/21 15:12	12/18/21 04:20		1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	12/16/21 15:12	12/18/21 04:20		1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	12/16/21 15:12	12/18/21 04:20		1
Surrogate	%Recovery	MB Qualifier	MB Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			12/16/21 15:12	12/18/21 04:20	1
o-Terphenyl	123		70 - 130			12/16/21 15:12	12/18/21 04:20	1

**Lab Sample ID: LCS 880-14981/2-A****Matrix: Solid****Analysis Batch: 15012****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 14981**

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	RPD
Gasoline Range Organics (GRO)-C6-C10		1000	909.7		mg/Kg	91	70 - 130	
Diesel Range Organics (Over C10-C28)		1000	706.6		mg/Kg	71	70 - 130	
Surrogate		%Recovery	LCS Qualifier	LCS Limits				
1-Chlorooctane		78		70 - 130				
o-Terphenyl		81		70 - 130				

**Lab Sample ID: LCSD 880-14981/3-A****Matrix: Solid****Analysis Batch: 15012****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 14981**

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
Gasoline Range Organics (GRO)-C6-C10		1000	899.7		mg/Kg	90	70 - 130	1
Diesel Range Organics (Over C10-C28)		1000	709.1		mg/Kg	71	70 - 130	0
Surrogate		%Recovery	LCSD Qualifier	LCSD Limits				
1-Chlorooctane		78		70 - 130				
o-Terphenyl		81		70 - 130				

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

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

Lab Sample ID: LCSD 880-14981/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 15012

Prep Batch: 14981

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	75		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: 890-1713-A-1-D MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 15012

Prep Batch: 14981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	817.4		mg/Kg		78	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	716.4	F1	mg/Kg		69	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	72		70 - 130						
o-Terphenyl	76		70 - 130						

Lab Sample ID: 890-1713-A-1-E MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 15012

Prep Batch: 14981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	995	904.1		mg/Kg		87	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	995	729.3		mg/Kg		70	70 - 130	2	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	74		70 - 130								
o-Terphenyl	77		70 - 130								

**Method: 300.0 - Anions, Ion Chromatography**

Lab Sample ID: MB 880-14792/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 14832

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/15/21 09:09	1

Lab Sample ID: LCS 880-14792/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 14832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Chloride	250	252.9		mg/Kg		101	90 - 110

Eurofins Xenco, Carlsbad

**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: LCSD 880-14792/3-A****Matrix: Solid****Analysis Batch: 14832****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	252.7		mg/Kg		101	90 - 110	0	20

**Lab Sample ID: 890-1709-2 MS****Matrix: Solid****Analysis Batch: 14832****Client Sample ID: FS02**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	931		2480	3403		mg/Kg		100	90 - 110

**Lab Sample ID: 890-1709-2 MSD****Matrix: Solid****Analysis Batch: 14832****Client Sample ID: FS02**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	931		2480	3392		mg/Kg		99	90 - 110	0	20

Eurofins Xenco, Carlsbad

**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**GC VOA****Prep Batch: 14660**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Total/NA	Solid	5035	
890-1709-2	FS02	Total/NA	Solid	5035	
890-1709-3	FS03	Total/NA	Solid	5035	
890-1709-4	FS04	Total/NA	Solid	5035	
890-1709-5	FS05	Total/NA	Solid	5035	
890-1709-6	FS06	Total/NA	Solid	5035	
890-1709-7	FS07	Total/NA	Solid	5035	
890-1709-8	FS08	Total/NA	Solid	5035	
890-1709-9	FS09	Total/NA	Solid	5035	
890-1709-10	FS10	Total/NA	Solid	5035	
890-1709-11	FS11	Total/NA	Solid	5035	
MB 880-14660/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14660/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14660/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1699-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 14700**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Total/NA	Solid	8021B	14660
890-1709-2	FS02	Total/NA	Solid	8021B	14660
890-1709-3	FS03	Total/NA	Solid	8021B	14660
890-1709-4	FS04	Total/NA	Solid	8021B	14660
890-1709-5	FS05	Total/NA	Solid	8021B	14660
890-1709-6	FS06	Total/NA	Solid	8021B	14660
890-1709-7	FS07	Total/NA	Solid	8021B	14660
890-1709-8	FS08	Total/NA	Solid	8021B	14660
890-1709-9	FS09	Total/NA	Solid	8021B	14660
890-1709-10	FS10	Total/NA	Solid	8021B	14660
890-1709-11	FS11	Total/NA	Solid	8021B	14660
MB 880-14660/5-A	Method Blank	Total/NA	Solid	8021B	14660
LCS 880-14660/1-A	Lab Control Sample	Total/NA	Solid	8021B	14660
LCSD 880-14660/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14660
890-1699-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	14660
890-1699-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14660

**Analysis Batch: 14874**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Total/NA	Solid	Total BTEX	
890-1709-2	FS02	Total/NA	Solid	Total BTEX	
890-1709-3	FS03	Total/NA	Solid	Total BTEX	
890-1709-4	FS04	Total/NA	Solid	Total BTEX	
890-1709-5	FS05	Total/NA	Solid	Total BTEX	
890-1709-6	FS06	Total/NA	Solid	Total BTEX	
890-1709-7	FS07	Total/NA	Solid	Total BTEX	
890-1709-8	FS08	Total/NA	Solid	Total BTEX	
890-1709-9	FS09	Total/NA	Solid	Total BTEX	
890-1709-10	FS10	Total/NA	Solid	Total BTEX	
890-1709-11	FS11	Total/NA	Solid	Total BTEX	

Eurofins Xenco, Carlsbad

**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**GC Semi VOA****Analysis Batch: 14652**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Total/NA	Solid	8015 NM	
890-1709-2	FS02	Total/NA	Solid	8015 NM	
890-1709-3	FS03	Total/NA	Solid	8015 NM	
890-1709-4	FS04	Total/NA	Solid	8015 NM	
890-1709-5	FS05	Total/NA	Solid	8015 NM	
890-1709-6	FS06	Total/NA	Solid	8015 NM	
890-1709-7	FS07	Total/NA	Solid	8015 NM	
890-1709-8	FS08	Total/NA	Solid	8015 NM	
890-1709-9	FS09	Total/NA	Solid	8015 NM	
890-1709-10	FS10	Total/NA	Solid	8015 NM	
890-1709-11	FS11	Total/NA	Solid	8015 NM	

**Analysis Batch: 14716**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-4	FS04	Total/NA	Solid	8015B NM	14782
890-1709-5	FS05	Total/NA	Solid	8015B NM	14782
890-1709-6	FS06	Total/NA	Solid	8015B NM	14782
890-1709-7	FS07	Total/NA	Solid	8015B NM	14782
890-1709-8	FS08	Total/NA	Solid	8015B NM	14782
890-1709-9	FS09	Total/NA	Solid	8015B NM	14782
890-1709-10	FS10	Total/NA	Solid	8015B NM	14782
890-1709-11	FS11	Total/NA	Solid	8015B NM	14782
MB 880-14782/1-A	Method Blank	Total/NA	Solid	8015B NM	14782
LCS 880-14782/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14782
LCSD 880-14782/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14782
890-1700-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	14782
890-1700-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14782

**Prep Batch: 14782**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-4	FS04	Total/NA	Solid	8015NM Prep	
890-1709-5	FS05	Total/NA	Solid	8015NM Prep	
890-1709-6	FS06	Total/NA	Solid	8015NM Prep	
890-1709-7	FS07	Total/NA	Solid	8015NM Prep	
890-1709-8	FS08	Total/NA	Solid	8015NM Prep	
890-1709-9	FS09	Total/NA	Solid	8015NM Prep	
890-1709-10	FS10	Total/NA	Solid	8015NM Prep	
890-1709-11	FS11	Total/NA	Solid	8015NM Prep	
MB 880-14782/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14782/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14782/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1700-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1700-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Prep Batch: 14794**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Total/NA	Solid	8015NM Prep	
890-1709-2	FS02	Total/NA	Solid	8015NM Prep	
890-1709-3	FS03	Total/NA	Solid	8015NM Prep	
MB 880-14794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**GC Semi VOA (Continued)****Prep Batch: 14794 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-14794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1709-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-1709-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 14897**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Total/NA	Solid	8015B NM	14794
890-1709-2	FS02	Total/NA	Solid	8015B NM	14794
890-1709-3	FS03	Total/NA	Solid	8015B NM	14794
MB 880-14794/1-A	Method Blank	Total/NA	Solid	8015B NM	14794
LCS 880-14794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14794
LCSD 880-14794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14794
890-1709-1 MS	FS01	Total/NA	Solid	8015B NM	14794
890-1709-1 MSD	FS01	Total/NA	Solid	8015B NM	14794

**Prep Batch: 14981**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-14981/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14981/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14981/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1713-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1713-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 15012**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-14981/1-A	Method Blank	Total/NA	Solid	8015B NM	14981
LCS 880-14981/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14981
LCSD 880-14981/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14981
890-1713-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	14981
890-1713-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14981

**HPLC/IC****Leach Batch: 14792**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Soluble	Solid	DI Leach	
890-1709-2	FS02	Soluble	Solid	DI Leach	
890-1709-3	FS03	Soluble	Solid	DI Leach	
890-1709-4	FS04	Soluble	Solid	DI Leach	
890-1709-5	FS05	Soluble	Solid	DI Leach	
890-1709-6	FS06	Soluble	Solid	DI Leach	
890-1709-7	FS07	Soluble	Solid	DI Leach	
890-1709-8	FS08	Soluble	Solid	DI Leach	
890-1709-9	FS09	Soluble	Solid	DI Leach	
890-1709-10	FS10	Soluble	Solid	DI Leach	
890-1709-11	FS11	Soluble	Solid	DI Leach	
MB 880-14792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1709-2 MS	FS02	Soluble	Solid	DI Leach	
890-1709-2 MSD	FS02	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**HPLC/IC****Analysis Batch: 14832**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1709-1	FS01	Soluble	Solid	300.0	14792
890-1709-2	FS02	Soluble	Solid	300.0	14792
890-1709-3	FS03	Soluble	Solid	300.0	14792
890-1709-4	FS04	Soluble	Solid	300.0	14792
890-1709-5	FS05	Soluble	Solid	300.0	14792
890-1709-6	FS06	Soluble	Solid	300.0	14792
890-1709-7	FS07	Soluble	Solid	300.0	14792
890-1709-8	FS08	Soluble	Solid	300.0	14792
890-1709-9	FS09	Soluble	Solid	300.0	14792
890-1709-10	FS10	Soluble	Solid	300.0	14792
890-1709-11	FS11	Soluble	Solid	300.0	14792
MB 880-14792/1-A	Method Blank	Soluble	Solid	300.0	14792
LCS 880-14792/2-A	Lab Control Sample	Soluble	Solid	300.0	14792
LCSD 880-14792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14792
890-1709-2 MS	FS02	Soluble	Solid	300.0	14792
890-1709-2 MSD	FS02	Soluble	Solid	300.0	14792

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS01**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-1**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 15:17	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14794	12/14/21 16:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14897	12/16/21 11:19	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 12:43	CH	XEN MID

**Client Sample ID: FS02**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-2**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 15:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14794	12/14/21 16:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14897	12/16/21 12:23	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 12:52	CH	XEN MID

**Client Sample ID: FS03**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-3**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 15:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14794	12/14/21 16:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14897	12/16/21 12:44	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 13:17	CH	XEN MID

**Client Sample ID: FS04**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-4**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 16:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS04**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-4**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 02:52	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 13:25	CH	XEN MID

**Client Sample ID: FS05**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-5**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 17:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 03:12	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 13:50	CH	XEN MID

**Client Sample ID: FS06**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-6**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 18:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 03:33	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 13:59	CH	XEN MID

**Client Sample ID: FS07**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-7**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 18:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 03:54	AJ	XEN MID

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS07**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-7**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 14:07	CH	XEN MID

**Client Sample ID: FS08**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-8**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 18:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/15/21 16:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 04:15	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 14:16	CH	XEN MID

**Client Sample ID: FS09**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-9**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 19:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/15/21 16:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 04:37	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 14:24	CH	XEN MID

**Client Sample ID: FS10**

Date Collected: 12/07/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-10**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 19:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/15/21 16:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 04:58	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 14:32	CH	XEN MID

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
 Project/Site: Nash Unit 39

Job ID: 890-1709-1  
 SDG: 31403236.0120.0129 task 05.02

**Client Sample ID: FS11**

Date Collected: 12/07/21 00:00  
 Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1709-11**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 19:43	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/15/21 16:03	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 05:19	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 14:41	CH	XEN MID

**Laboratory References:**

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

Eurofins Xenco, Carlsbad

## Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

### **Laboratory: Eurofins Xenco, Midland**

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

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

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

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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Eurofins Xenco, Carlsbad

## Method Summary

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

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

Eurofins Xenco, Carlsbad

**Sample Summary**

Client: WSP USA Inc.

Project/Site: Nash Unit 39

Job ID: 890-1709-1  
SDG: 31403236.0120.0129 task 05.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-1709-1	FS01	Solid	12/07/21 00:00	12/14/21 08:07	0.5	1
890-1709-2	FS02	Solid	12/07/21 00:00	12/14/21 08:07	0.5	2
890-1709-3	FS03	Solid	12/07/21 00:00	12/14/21 08:07	0.5	3
890-1709-4	FS04	Solid	12/07/21 00:00	12/14/21 08:07	0.5	4
890-1709-5	FS05	Solid	12/07/21 00:00	12/14/21 08:07	0.5	5
890-1709-6	FS06	Solid	12/07/21 00:00	12/14/21 08:07	0.5	6
890-1709-7	FS07	Solid	12/07/21 00:00	12/14/21 08:07	0.5	7
890-1709-8	FS08	Solid	12/07/21 00:00	12/14/21 08:07	0.5	8
890-1709-9	FS09	Solid	12/07/21 00:00	12/14/21 08:07	0.5	9
890-1709-10	FS10	Solid	12/07/21 00:00	12/14/21 08:07	0.5	10
890-1709-11	FS11	Solid	12/07/21 00:00	12/14/21 08:07	0.5	11



## Chain of Custody

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

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

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Page

of 2

Project Manager:	Toluoma Morrissey	Bill to: (if different)	Kyle Littrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	720-384-7365	Email:	Alexis.Custody@WSP.com, Toluoma.Morrissey@WSP.com

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

### ANALYSIS REQUEST

Project Name: Nash Unit 34    Turn Around: \_\_\_\_\_

Project Number: 31403236020.0020

Task ID: Routine

Rush: 24hr

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

Temp Blank:  Yes     No

Wet Ice:  Yes     No

Thermometer ID: TNM003

Received Intact:  Yes     No

Correction Factor: -0.2

Sample Custody Seals:  Yes     No

Total Containers: \_\_\_\_\_

Number of Containers: \_\_\_\_\_

TPH (EPA 8015)

BTEX (EPA 0=8021)

Chloride (EPA 300.0)

890-1709 Chain of Custody

Barcode:

CC 1055841001

AC

API: 30-015-56951

INC. NAPR21843484

1631/245.1/7470/17471:Hg

1631/245.1/7470/17471



## Chain of Custody

Work Order No:

Hobbs, NM (37.5-392-7550) Phoenix, AZ (480-555-0500) Atlanta, GA (770-453-0000) Tampa, FL (813-250-2200)	
<b>Work Order Comments</b>	
<b>Program:</b> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>	
<b>State of Project:</b> NM	
<b>Reporting Level:</b> <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/JUST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
<b>Deliverables:</b> EDD <input type="checkbox"/> ADA/PT <input type="checkbox"/> Other:	
<b>Project Manager:</b>  Travis Casey	<b>Bill to:</b> (if different) Adrian Baker
<b>Company Name:</b> WSP USA Inc., Permian office	<b>Company Name:</b> XTO Energy
<b>Address:</b> 3300 North A St, Bldg 1, Unit 222	<b>Address:</b> 3104 E Greene St.
<b>City, State ZIP:</b> Midland, TX 79705	<b>City, State ZIP:</b> Carlsbad, NM
<b>Phone:</b> (432) 704-5178	<b>Email:</b> travis.casey@wsp.com, kate.l.jennings@wsp.com, dan.moir@wsp.com

Work Order Comments										
<b>Program:</b> UST/PST	<input type="checkbox"/> PRP	<input checked="" type="checkbox"/> Brownfields	<input type="checkbox"/> RC	<input type="checkbox"/> Superfund	<input type="checkbox"/>					
<b>State of Project:</b>	NM									
<b>Reporting Level:</b>	Level II	<input type="checkbox"/>	Level III	<input type="checkbox"/>	STJUSt	<input type="checkbox"/>	PRP	<input type="checkbox"/>	Level IV	<input type="checkbox"/>
<b>Deliverables:</b>	EDD	<input type="checkbox"/>	ADApt	<input type="checkbox"/>	Other:					

**CIRCLE WHETHER(S) AND WHERE(S) TO BE ANALYZED**      **TESTS OR LOTS TESTED:** **OPTION**      **CD** **PC** **DC** **CD** **CT** **CD** **CD**



## Chain of Custody

Work Order No:

*Received by OCD: 3/23/2022 1:07:32 PM*

<b>Total</b>	<b>200.7 / 6010</b>	<b>200.8 / 6020:</b>	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V	1631 / 245.1 / 7470 / 7
<i>Circle Method(s) and Meta(s) to be analyzed</i>		TCLP / SPLP 6010:	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	

**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 \$15.00 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.

**Eurofins Xenco, Carlsbad**  
1059 N Canal St.  
Carlsbad NM 88220  
Phone: 575-988-3199 Fax: 575-988-3199

## Chain of Custody Record



eurofins  
Environment Testing

America

<b>Client Information (Sub Contract Lab)</b>	Sampler	Lab PM Kramer Jessica	Carrier Tracking No(s)	COC No 890-5441
<b>Shipping/Receiving</b>	Phone	E-Mail jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 2
Company Eurofins Xenco	Address 1211 W Florida Ave	Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas	Job #: 890-1709-1	

City: Midland	Due Date Requested 12/15/2021	TA Requested (days):	Analysis Requested	Preservation Codes
State Zip: TX, 79701				A - HCl B - NaOH C - Zn Acetate D - O - AsNaO2 E - NaHSO4 F - MeOH G - Ammonium H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - Other (specify)
Phone: 432-704-5440(Tel)	PO #:			
Email: Project Name: Nash Unit 39	WHO #: Project #: 89000004	SCDW#:		
Site:				

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab) S=solid, L=liquid, A=air)	Matrix (W=water S=solid O=waste/soil, B=biotic, A=air)	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers	Special Instructions/Note:
					Presented Code	Field Filtered	Perform MS/MSD	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH		
FS26 (890-1709-1)	12/7/21	Mountain	Solid	X X X X X X				8015MOD_Calc		
FS29 (890-1709-2)	12/7/21	Mountain	Solid	X X X X X X				300_ORGFM_2BD/DI_LEACH Chloride		
FS30 (890-1709-3)	12/7/21	Mountain	Solid	X X X X X X				8021B/5036FP_Calc (MOD) BTEX		
FS31 (890-1709-4)	12/7/21	Mountain	Solid	X X X X X X				Total_BTEX_GCV		
FS32 (890-1709-5)	12/7/21	Mountain	Solid	X X X X X X						
FS33 (890-1709-6)	12/7/21	Mountain	Solid	X X X X X X						
FS34 (890-1709-7)	12/7/21	Mountain	Solid	X X X X X X						
FS35 (890-1709-8)	12/7/21	Mountain	Solid	X X X X X X						
FS37 (890-1709-9)	12/7/21	Mountain	Solid	X X X X X X						

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

### Possible Hazard Identification

Unconfirmed

Deliverable Requested I II III, IV Other (specify)

Primary Deliverable Rank 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  
 Disposal By Lab  
 Archive For Months

Special Instructions/QC Requirements.

Empty Kit Relinquished by <i>J. L. Clegg</i>	Date/Time: 12-14-21 13:14	Company Company	Received by <i>M. Price</i>	Date/Time: 12-14-21 9:00	Company
Relinquished by <i>J. L. Clegg</i>	Date/Time	Company	Received by <i>M. Price</i>	Date/Time	Company
Custody Seals Intact: Δ Yes    △ No	Custody Seal No			Cooler Temperature(s) °C and Other Remarks: • 4.5 • 10 TRB	

### Chain of Custody Record

1089 N Canal St.  
Carlsbad NM 88220

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No 890-544-2
Client Contact:		Kramer, Jessica	E-Mail jessica.kramer@eurofinsset.com	State of Origin New Mexico	Page: Page 2 of 2
Shipping/Receiving Company	Eurofins Xenco	NELAP - Louisiana NELAP - Texas			
Address:	1211 W Florida Ave	Due Date Requested	12/15/2021	Analysis Requested	
City:	Midland	TAT Requested (days):			
State Zip	TX, 79701	PO #			
Phone	432-704-5440(Tel)	VNO #			
Email		Project #	89000004		
Project Name	Nash Unit 39	SSDW#:			
Site.					
Sample Identification - Client ID (Lab ID)					
	Sample Date	Sample Time	Sample Type (C=Comp, G=grab) B=Issue As Is	Matrix (Owner & Source, or waste off, or send,	Field Filtered Sample (Yes or No)
FS38 (890-1709-10)	12/7/21	Mountain	Solid	X	Perform MS/MSD (Yes or No)
FS39 (890-1709-11)	12/7/21	Mountain	Solid	X	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH
				X	8015MOD_Calc
				X	300_ORGFM_28D/DI__LEACH Chloride
				X	8021B/5036FP_Calc (MOD) BTEX
				X	Total_BTEX_GCV
Preservation Codes					
A HCl	M Hexane				
B NaOH	N None				
C Zn Acetate	O AsNaO2				
D Nitric Acid	P Na2O4S				
E NaHCO4	Q Na2SCN3				
F MeOH	R Na2SiO3				
G - Antichlor	S - H2SO4				
H Ascorbic Acid	T - TSP Dodecahydrate				
I - ice	U Acetone				
J DI Water	V MCA				
K EDTA	W - pH 4-5				
L EDA	Z other (specify)				
Other					
Special Instructions/Note:					
<p>Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analytic &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other institutions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC.</p>					
<b>Possible Hazard Identification</b>					
<p><input type="checkbox"/> Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  <input type="checkbox"/> Return To Client    <input type="checkbox"/> Disposal By Lab    <input type="checkbox"/> Archive For _____ Months</p>					
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2					
Empty Kit Relinquished by					
Relinquished by	Olve Cup 12-14-21	Date/Time	Company	Received by	Date/Time
Relinquished by	1/1/08	Date/Time	Company	Received by	Date/Time
Relinquished by		Date/Time	Company	Received by	Date/Time
Custody Seals Intact.    Custody Seal No					
△ Yes    △ No					
Cooler Temperature(s) °C and Other Remarks. 44.5 - 10 IRG					

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

Possible Hazard Identification  
Uncontaminated

Deliverable Requested	Primary Deliverable Rank 2	Special Instructions/AC Requirements	Disposition	Priority	Comments
III IV Other (specify)					

Emonti Kir. Balinovici had. hui

Reinforced by:

Conducting  
Cables

Received by : *[Signature]* Date/Time: 12:13:11 Company: [Redacted]

Custody Seals Intact	Custody Seal No	.....	.....	.....	.....	.....	.....
		.....	.....	.....	.....	.....	.....

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1709-1  
SDG Number: 31403236.0120.0129 task 05.02**Login Number: 1709****List Source: Eurofins Xenco, Carlsbad****List Number: 1****Creator: Clifton, Cloe**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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: 890-1709-1  
SDG Number: 31403236.0120.0129 task 05.02**Login Number:** 1709**List Source:** Eurofins Xenco, Midland  
**List Creation:** 12/14/21 01:29 PM**List Number:** 2**Creator:** Rodriguez, Leticia

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		1
Sample custody seals, if present, are intact.	N/A		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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		



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Environment Testing  
America



## ANALYTICAL REPORT

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

[Laboratory Job ID: 890-1708-1](#)

Laboratory SDG: 31403236.020.0129 task 05.02

Client Project/Site: Nash Unit 39

Revision: 1

**For:**

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

Attn: Tacoma Morrissey

Authorized for release by:

12/29/2021 10:23:09 AM

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

LINKS

Review your project  
results through

**TotalAccess**

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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: Nash Unit 39

Laboratory Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

### 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.

□	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: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

### Job ID: 890-1708-1

Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

##### Job Narrative 890-1708-1

#### REVISION

The report being provided is a revision of the original report sent on 12/15/2021. The report (revision 1) is being revised due to Per client email, revising sample IDs.

Report revision history

#### Receipt

The samples were received on 12/14/2021 8:07 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

#### GC VOA

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

#### GC Semi VOA

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

#### HPLC/IC

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

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS12**  
Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1708-1**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 13:35	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 13:35	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 13:35	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/14/21 10:00	12/14/21 13:35	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 13:35	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/14/21 10:00	12/14/21 13:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	12/14/21 10:00	12/14/21 13:35	1
1,4-Difluorobenzene (Surr)	87		70 - 130	12/14/21 10:00	12/14/21 13:35	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			12/15/21 14:22	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			12/13/21 12:32	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		12/14/21 14:49	12/15/21 00:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/14/21 14:49	12/15/21 00:45	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/14/21 14:49	12/15/21 00:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	12/14/21 14:49	12/15/21 00:45	1
o-Terphenyl	92		70 - 130	12/14/21 14:49	12/15/21 00:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2050		49.9	mg/Kg			12/15/21 11:45	10

**Client Sample ID: FS13**  
Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1708-2**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 13:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 13:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 13:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 13:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/14/21 10:00	12/14/21 13:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/14/21 10:00	12/14/21 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	12/14/21 10:00	12/14/21 13:55	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS13**  
Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1708-2**  
Matrix: Solid

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

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	12/14/21 10:00	12/14/21 13:55	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			12/15/21 14:22	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			12/13/21 12:32	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		12/14/21 14:49	12/15/21 01:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 01:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 01:06	1

**Surrogate**

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	12/14/21 14:49	12/15/21 01:06	1
o-Terphenyl	95		70 - 130	12/14/21 14:49	12/15/21 01:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1940		49.5	mg/Kg			12/15/21 12:10	10

**Client Sample ID: FS14**

Date Collected: 12/06/21 00:00

Date Received: 12/14/21 08:07

Sample Depth: 0.5

**Lab Sample ID: 890-1708-3**

Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:16	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/14/21 10:00	12/14/21 14:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:16	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/14/21 10:00	12/14/21 14:16	1

**Surrogate**

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	12/14/21 10:00	12/14/21 14:16	1
1,4-Difluorobenzene (Surr)	103		70 - 130	12/14/21 10:00	12/14/21 14:16	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			12/15/21 14:22	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			12/13/21 12:32	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS14**  
Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1708-3**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 01:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 01:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 01:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2980		50.0	mg/Kg		12/15/21 12:18		10

**Client Sample ID: FS15**  
Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1708-4**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:36	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:36	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:36	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/14/21 10:00	12/14/21 14:36	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/14/21 10:00	12/14/21 14:36	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/14/21 10:00	12/14/21 14:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			12/14/21 10:00	12/14/21 14:36	1
1,4-Difluorobenzene (Surr)	101		70 - 130			12/14/21 10:00	12/14/21 14:36	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		12/15/21 14:22		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		12/13/21 12:32		1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 01:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 01:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/14/21 14:49	12/15/21 01:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			12/14/21 14:49	12/15/21 01:49	1
o-Terphenyl	96		70 - 130			12/14/21 14:49	12/15/21 01:49	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS15**  
Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1708-4**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2200		50.4	mg/Kg			12/15/21 12:27	10

**Client Sample ID: FS16**  
Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07  
Sample Depth: 0.5

**Lab Sample ID: 890-1708-5**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg				1
Toluene	<0.00202	U	0.00202	mg/Kg				1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg				1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg				1
o-Xylene	<0.00202	U	0.00202	mg/Kg				1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg				1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	117		70 - 130			12/14/21 10:00	12/14/21 14:57	1
1,4-Difluorobenzene (Surr)	105		70 - 130			12/14/21 10:00	12/14/21 14:57	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			12/15/21 14:22	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			12/13/21 12:32	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		12/14/21 14:49	12/15/21 02:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 02:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/15/21 02:31	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1-Chlorooctane	106		70 - 130			12/14/21 14:49	12/15/21 02:31	1
<i>o-Terphenyl</i>	101		70 - 130			12/14/21 14:49	12/15/21 02:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2520		49.8	mg/Kg			12/15/21 12:35	10

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**Surrogate Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
890-1699-A-1-A MS	Matrix Spike	103	99
890-1699-A-1-B MSD	Matrix Spike Duplicate	107	104
890-1708-1	FS12	114	87
890-1708-2	FS13	112	106
890-1708-3	FS14	114	103
890-1708-4	FS15	107	101
890-1708-5	FS16	117	105
LCS 880-14660/1-A	Lab Control Sample	99	105
LCSD 880-14660/2-A	Lab Control Sample Dup	104	108
MB 880-14660/5-A	Method Blank	117	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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
890-1700-A-1-G MS	Matrix Spike	89	85
890-1700-A-1-H MSD	Matrix Spike Duplicate	93	83
890-1708-1	FS12	104	92
890-1708-2	FS13	103	95
890-1708-3	FS14	98	91
890-1708-4	FS15	103	96
890-1708-5	FS16	106	101

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO2 (70-130)	OTPH2 (70-130)
LCS 880-14782/2-A	Lab Control Sample	103	91
LCSD 880-14782/3-A	Lab Control Sample Dup	120	111
MB 880-14782/1-A	Method Blank	91	89

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC)****Lab Sample ID: MB 880-14660/5-A****Matrix: Solid****Analysis Batch: 14700**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
Toluene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	12/14/21 07:30	12/14/21 10:41		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	12/14/21 07:30	12/14/21 10:41		1

**Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 14660**

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	117		70 - 130	12/14/21 07:30	12/14/21 10:41	1
1,4-Difluorobenzene (Surr)	102		70 - 130	12/14/21 07:30	12/14/21 10:41	1

**Lab Sample ID: LCS 880-14660/1-A****Matrix: Solid****Analysis Batch: 14700**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Benzene	0.100	0.08602		mg/Kg	86	70 - 130	
Toluene	0.100	0.07927		mg/Kg	79	70 - 130	
Ethylbenzene	0.100	0.07784		mg/Kg	78	70 - 130	
m-Xylene & p-Xylene	0.200	0.1589		mg/Kg	79	70 - 130	
o-Xylene	0.100	0.07845		mg/Kg	78	70 - 130	

Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	99		70 - 130			
1,4-Difluorobenzene (Surr)	105		70 - 130			

**Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 14660****Lab Sample ID: LCSD 880-14660/2-A****Matrix: Solid****Analysis Batch: 14700**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Benzene	0.100	0.1000		mg/Kg	100	70 - 130	15
Toluene	0.100	0.09082		mg/Kg	91	70 - 130	14
Ethylbenzene	0.100	0.08966		mg/Kg	90	70 - 130	14
m-Xylene & p-Xylene	0.200	0.1825		mg/Kg	91	70 - 130	14
o-Xylene	0.100	0.09067		mg/Kg	91	70 - 130	14

Surrogate	LCSD	LCSD	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	104		70 - 130			
1,4-Difluorobenzene (Surr)	108		70 - 130			

**Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 14660****Lab Sample ID: 890-1699-A-1-B MSD****Matrix: Solid****Analysis Batch: 14700**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	RPD
	Result	Qualifier	Added	Result	Qualifier				
Benzene	0.0370		0.101	0.09777		mg/Kg			
Toluene	0.0642		0.101	0.09286		mg/Kg			

**Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 14660**

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC) (Continued)****Lab Sample ID: 890-1699-A-1-B MSD****Matrix: Solid****Analysis Batch: 14700****Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 14660**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD
Ethylbenzene	0.00482		0.101	0.09246		mg/Kg			
m-Xylene & p-Xylene	0.0144		0.201	0.1911		mg/Kg			
o-Xylene	0.00334		0.101	0.09407		mg/Kg			
Surrogate	%Recovery	Qualifier		Limits				Limits	Limit
4-Bromofluorobenzene (Surr)	107			70 - 130					
1,4-Difluorobenzene (Surr)	104			70 - 130					

**Lab Sample ID: 890-1699-A-1-A MS****Matrix: Solid****Analysis Batch: 14700****Client Sample ID: Matrix Spike****Prep Type: Total/NA**

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)****Lab Sample ID: MB 880-14782/1-A****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 14782**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/14/21 20:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/14/21 20:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/14/21 14:49	12/14/21 20:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			12/14/21 14:49	12/14/21 20:54	1
o-Terphenyl	89		70 - 130			12/14/21 14:49	12/14/21 20:54	1

**Lab Sample ID: LCS 880-14782/2-A****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 14782**

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	
Gasoline Range Organics (GRO)-C6-C10		1000	966.5		mg/Kg		97	70 - 130
Diesel Range Organics (Over C10-C28)		1000	944.6		mg/Kg		94	70 - 130
Surrogate	%Recovery	Qualifier	Limits				Limits	
1-Chlorooctane	103		70 - 130					
o-Terphenyl	91		70 - 130					

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Lab Sample ID: LCSD 880-14782/3-A****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 14782**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1015		mg/Kg		102	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	1000	1024		mg/Kg		102	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl		111	70 - 130

**Lab Sample ID: 890-1700-A-1-G MS****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Matrix Spike****Prep Type: Total/NA****Prep Batch: 14782**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	899.8		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	917.4		mg/Kg		92	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl		85	70 - 130

**Lab Sample ID: 890-1700-A-1-H MSD****Matrix: Solid****Analysis Batch: 14716****Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 14782**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	902.0		mg/Kg		88	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	924.2		mg/Kg		93	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl		83	70 - 130

**Method: 300.0 - Anions, Ion Chromatography****Lab Sample ID: MB 880-14792/1-A****Matrix: Solid****Analysis Batch: 14832****Client Sample ID: Method Blank****Prep Type: Soluble**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/15/21 09:09	1

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: LCS 880-14792/2-A****Matrix: Solid****Analysis Batch: 14832****Client Sample ID: Lab Control Sample**  
**Prep Type: Soluble**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	RPD
Chloride	250	252.9		mg/Kg	101	90 - 110	

**Lab Sample ID: LCSD 880-14792/3-A****Matrix: Solid****Analysis Batch: 14832****Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Soluble**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
Chloride	250	252.7		mg/Kg	101	90 - 110	

**Lab Sample ID: 890-1709-A-2-E MS****Matrix: Solid****Analysis Batch: 14832****Client Sample ID: Matrix Spike**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.
Chloride	931		2480	3403		mg/Kg	100	90 - 110

**Lab Sample ID: 890-1709-A-2-F MSD****Matrix: Solid****Analysis Batch: 14832****Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.
Chloride	931		2480	3392		mg/Kg	99	90 - 110

Eurofins Xenco, Carlsbad

**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**GC VOA****Prep Batch: 14660**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Total/NA	Solid	5035	
890-1708-2	FS13	Total/NA	Solid	5035	
890-1708-3	FS14	Total/NA	Solid	5035	
890-1708-4	FS15	Total/NA	Solid	5035	
890-1708-5	FS16	Total/NA	Solid	5035	
MB 880-14660/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14660/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14660/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1699-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 14700**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Total/NA	Solid	8021B	14660
890-1708-2	FS13	Total/NA	Solid	8021B	14660
890-1708-3	FS14	Total/NA	Solid	8021B	14660
890-1708-4	FS15	Total/NA	Solid	8021B	14660
890-1708-5	FS16	Total/NA	Solid	8021B	14660
MB 880-14660/5-A	Method Blank	Total/NA	Solid	8021B	14660
LCS 880-14660/1-A	Lab Control Sample	Total/NA	Solid	8021B	14660
LCSD 880-14660/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14660
890-1699-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1699-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14660

**Analysis Batch: 14874**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Total/NA	Solid	Total BTEX	
890-1708-2	FS13	Total/NA	Solid	Total BTEX	
890-1708-3	FS14	Total/NA	Solid	Total BTEX	
890-1708-4	FS15	Total/NA	Solid	Total BTEX	
890-1708-5	FS16	Total/NA	Solid	Total BTEX	

**GC Semi VOA****Analysis Batch: 14652**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Total/NA	Solid	8015 NM	
890-1708-2	FS13	Total/NA	Solid	8015 NM	
890-1708-3	FS14	Total/NA	Solid	8015 NM	
890-1708-4	FS15	Total/NA	Solid	8015 NM	
890-1708-5	FS16	Total/NA	Solid	8015 NM	

**Analysis Batch: 14716**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Total/NA	Solid	8015B NM	14782
890-1708-2	FS13	Total/NA	Solid	8015B NM	14782
890-1708-3	FS14	Total/NA	Solid	8015B NM	14782
890-1708-4	FS15	Total/NA	Solid	8015B NM	14782
890-1708-5	FS16	Total/NA	Solid	8015B NM	14782
MB 880-14782/1-A	Method Blank	Total/NA	Solid	8015B NM	14782
LCS 880-14782/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14782
LCSD 880-14782/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14782

Eurofins Xenco, Carlsbad

**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**GC Semi VOA (Continued)****Analysis Batch: 14716 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1700-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	14782
890-1700-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14782

**Prep Batch: 14782**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Total/NA	Solid	8015NM Prep	
890-1708-2	FS13	Total/NA	Solid	8015NM Prep	
890-1708-3	FS14	Total/NA	Solid	8015NM Prep	
890-1708-4	FS15	Total/NA	Solid	8015NM Prep	
890-1708-5	FS16	Total/NA	Solid	8015NM Prep	
MB 880-14782/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14782/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14782/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1700-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1700-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**HPLC/IC****Leach Batch: 14792**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Soluble	Solid	DI Leach	
890-1708-2	FS13	Soluble	Solid	DI Leach	
890-1708-3	FS14	Soluble	Solid	DI Leach	
890-1708-4	FS15	Soluble	Solid	DI Leach	
890-1708-5	FS16	Soluble	Solid	DI Leach	
MB 880-14792/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14792/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14792/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1709-A-2-E MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1709-A-2-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

**Analysis Batch: 14832**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1708-1	FS12	Soluble	Solid	300.0	14792
890-1708-2	FS13	Soluble	Solid	300.0	14792
890-1708-3	FS14	Soluble	Solid	300.0	14792
890-1708-4	FS15	Soluble	Solid	300.0	14792
890-1708-5	FS16	Soluble	Solid	300.0	14792
MB 880-14792/1-A	Method Blank	Soluble	Solid	300.0	14792
LCS 880-14792/2-A	Lab Control Sample	Soluble	Solid	300.0	14792
LCSD 880-14792/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14792
890-1709-A-2-E MS	Matrix Spike	Soluble	Solid	300.0	14792
890-1709-A-2-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	14792

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS12**

Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1708-1**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 13:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 00:45	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 11:45	CH	XEN MID

**Client Sample ID: FS13**

Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1708-2**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 13:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 01:06	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 12:10	CH	XEN MID

**Client Sample ID: FS14**

Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1708-3**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 14:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 01:27	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 12:18	CH	XEN MID

**Client Sample ID: FS15**

Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1708-4**  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 14:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS15**

Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1708-4**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 01:49	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 12:27	CH	XEN MID

**Client Sample ID: FS16**

Date Collected: 12/06/21 00:00  
Date Received: 12/14/21 08:07

**Lab Sample ID: 890-1708-5**  
**Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14660	12/14/21 10:00	KL	XEN MID
Total/NA	Analysis	8021B		1	14700	12/14/21 14:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	14874	12/15/21 14:22	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			14782	12/14/21 14:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	14716	12/15/21 02:31	AJ	XEN MID
Soluble	Leach	DI Leach			14792	12/14/21 15:58	CA	XEN MID
Soluble	Analysis	300.0		10	14832	12/15/21 12:35	CH	XEN MID

**Laboratory References:**

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

Eurofins Xenco, Carlsbad

## Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

### **Laboratory: Eurofins Xenco, Midland**

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

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

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

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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Eurofins Xenco, Carlsbad

## Method Summary

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1708-1  
SDG: 31403236.020.0129 task 05.02

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

Eurofins Xenco, Carlsbad

**Sample Summary**

Client: WSP USA Inc.

Project/Site: Nash Unit 39

Job ID: 890-1708-1

SDG: 31403236.020.0129 task 05.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-1708-1	FS12	Solid	12/06/21 00:00	12/14/21 08:07	0.5	1
890-1708-2	FS13	Solid	12/06/21 00:00	12/14/21 08:07	0.5	2
890-1708-3	FS14	Solid	12/06/21 00:00	12/14/21 08:07	0.5	3
890-1708-4	FS15	Solid	12/06/21 00:00	12/14/21 08:07	0.5	4
890-1708-5	FS16	Solid	12/06/21 00:00	12/14/21 08:07	0.5	5



## Chain of Custody

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

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
 Midland, TX (432)-704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
 Phoenix, AZ (480)-355-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000  
[www.xenoco.com](http://www.xenoco.com)

Page 1 of 1

Project Manager:	Tuloma Morrissey	Bill To: (if different)	Kyle Littrell	Work Order Comments
Company Name:	WSP	Company Name:	XTO Energy	Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/>
Address:	3300 North A Street	Address:	3104 E Green Street	State of Project:
City State ZIP:	Midland, TX 79705	City State ZIP:	Carlsbad, NM 88220	Reporting Level: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/JUST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Phone:	720-384-7365	Phone:	Alexis.Cisneros@wsp.com; Tuloma.Morrissey@wsp.com	Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

ANALYSIS REQUEST						Work Order Notes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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Custody</i>			1				2				3				4				5				6				7				8				9				10				11				12				13				14				15				16				17				18				19				20				21				22				23				24				25				26				27				28				29				30				31				32				33				34				35				36				37				38				39				40				41				42				43				44				45				46				47				48				49				50				51				52				53				54				55				56				57				58				59				60				61				62				63				64				65				66				67				68				69				70				71				72				73				74				75				76				77				78				79				80				81				82				83				84				85				86				87				88				89				90				91				92				93				94				95				96				97				98				99				100				101				102				103				104				105				106				107				108				109				110				111				112				113				114				115				116				117				118				119				120				121				122				123				124				125				126				127				128				129				130				131				132				133				134				135				136				137				138				139				140				141				142				143				144				145				146				147				148				149				150				151				152				153				154				155				156				157				158				159				160				161				162				163				164				165				166				167				168				169				170				171				172				173				174				175				176				177				178				179				180				181				182				183				184				185				186				187				188				189				190				191				192				193				194				195				196				197				198				199				200				201				202				203				204				205				206				207				208				209				210				211				212				213				214				215				216				217				218				219				220				221				222				223				224				225				226				227				228				229				230				231				232				233				234				235				236				237				238				239				240				241				242				243				244				245				246				247				248				249				250				251				252				253				254				255				256				257				258				259				260				261				262				263				264				265				266				267				268				269				270				271				272				273				274				275				276				277				278				279				280				281				282				283				284				285				286				287				288				289				290				291				292				293				294				295				296				297				298				299				300				301				302				303				304				305				306				307				308				309				310				311				312				313				314				315				316				317				318				319				320				321				322				323				324				325				326				327				328				329				330				331				332				333				334				335				336				337				338				339				340				341				342				343				344				345				346				347				348				349				350				351				352				353				354				355				356				357				358				359				360				361				362				363				364				365				366				367				368				369				370				371				372				373				374				375				376				377				378				379				380				381				382				383				384				385				386				387				388				389				390				391				392				393				394				395				396				397		
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## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1708-1  
SDG Number: 31403236.020.0129 task 05.02**Login Number:** 1708**List Source:** Eurofins Xenco, Carlsbad**List Number:** 1**Creator:** Clifton, Cloe**Question****Answer****Comment**

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

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1708-1  
SDG Number: 31403236.020.0129 task 05.02**Login Number:** 1708**List Source:** Eurofins Xenco, Midland  
**List Creation:** 12/14/21 01:29 PM**List Number:** 2**Creator:** Rodriguez, Leticia

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	N/A		6
Sample custody seals, if present, are intact.	N/A		7
The cooler or samples do not appear to have been compromised or tampered with.	True		8
Samples were received on ice.	True		9
Cooler Temperature is acceptable.	True		10
Cooler Temperature is recorded.	True		11
COC is present.	True		12
COC is filled out in ink and legible.	True		13
COC is filled out with all pertinent information.	True		14
Is the Field Sampler's name present on COC?	True		
There are no discrepancies between the containers received and the COC.	True		
Samples are received within Holding Time (excluding tests with immediate HTs)	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A		



Environment Testing  
America



## ANALYTICAL REPORT

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

[Laboratory Job ID: 890-1754-1](#)

Laboratory SDG: 31403236.020.0129 task 05.02

Client Project/Site: Nash Unit 39

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

Attn: Tacoma Morrissey

Authorized for release by:  
1/5/2022 8:52:46 AM

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

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

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

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Laboratory Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

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**Definitions/Glossary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Qualifiers****GC VOA**

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

**GC Semi VOA**

Qualifier	Qualifier Description
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
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: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Job ID: 890-1754-1****Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative  
890-1754-1****Receipt**

The samples were received on 12/23/2021 1:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

**GC VOA**

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS17 (890-1754-1) and FS18 (890-1754-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15651 and analytical batch 880-15623 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (CCV 880-15714/21), (CCV 880-15714/34), (LCS 880-15693/1-A), (LCSD 880-15693/2-A) and (880-9683-A-1-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15693 and analytical batch 880-15714 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**GC Semi VOA**

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-15722 and analytical batch 880-15825 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: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS17**  
Date Collected: 12/21/21 13:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-1**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 06:52	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 06:52	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 06:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/28/21 13:02	12/29/21 06:52	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 06:52	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/28/21 13:02	12/29/21 06:52	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	169	S1+		70 - 130		12/28/21 13:02	12/29/21 06:52	1
1,4-Difluorobenzene (Surr)	127			70 - 130		12/28/21 13:02	12/29/21 06:52	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 13:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 13:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 13:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			12/29/21 10:17	12/31/21 13:47	1
<i>o</i> -Terphenyl	107		70 - 130			12/29/21 10:17	12/31/21 13:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2260		49.8	mg/Kg			12/31/21 02:15	10

**Client Sample ID: FS18**  
Date Collected: 12/21/21 13:20  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-2**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:12	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/28/21 13:02	12/29/21 07:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:12	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/28/21 13:02	12/29/21 07:12	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	144	S1+		70 - 130		12/28/21 13:02	12/29/21 07:12	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS18**  
Date Collected: 12/21/21 13:20  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-2**  
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	124		70 - 130	12/28/21 13:02	12/29/21 07:12	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 14:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 14:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	12/29/21 10:17	12/31/21 14:08	1
o-Terphenyl	99		70 - 130	12/29/21 10:17	12/31/21 14:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2990		49.9	mg/Kg			12/31/21 02:27	10

**Client Sample ID: FS19****Lab Sample ID: 890-1754-3**

Date Collected: 12/21/21 13:35 Matrix: Solid

Date Received: 12/23/21 13:00

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 07:33	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 07:33	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 07:33	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/28/21 13:02	12/29/21 07:33	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/28/21 13:02	12/29/21 07:33	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/28/21 13:02	12/29/21 07:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	12/28/21 13:02	12/29/21 07:33	1
1,4-Difluorobenzene (Surr)	81		70 - 130	12/28/21 13:02	12/29/21 07:33	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS19**  
Date Collected: 12/21/21 13:35  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-3**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 14:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 14:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	12/29/21 10:17	12/31/21 14:28	1
o-Terphenyl	118		70 - 130	12/29/21 10:17	12/31/21 14:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3040		50.1	mg/Kg			12/31/21 02:39	10

**Client Sample ID: FS20**  
Date Collected: 12/21/21 14:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-4**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/28/21 13:02	12/29/21 07:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 07:53	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/28/21 13:02	12/29/21 07:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	12/28/21 13:02	12/29/21 07:53	1
1,4-Difluorobenzene (Surr)	102		70 - 130	12/28/21 13:02	12/29/21 07:53	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 14:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 14:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	12/29/21 10:17	12/31/21 14:49	1
o-Terphenyl	100		70 - 130	12/29/21 10:17	12/31/21 14:49	1

Eurofins Xenco, Carlsbad

**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS20**  
Date Collected: 12/21/21 14:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-4**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1350		49.8	mg/Kg			12/31/21 02:50	10

**Client Sample ID: FS21**

**Lab Sample ID: 890-1754-5**  
Matrix: Solid

Date Collected: 12/21/21 14:35  
Date Received: 12/23/21 13:00  
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		12/28/21 13:02	12/29/21 08:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/28/21 13:02	12/29/21 08:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/28/21 13:02	12/29/21 08:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/28/21 13:02	12/29/21 08:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/28/21 13:02	12/29/21 08:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/28/21 13:02	12/29/21 08:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			12/28/21 13:02	12/29/21 08:13	1
1,4-Difluorobenzene (Surr)	86		70 - 130			12/28/21 13:02	12/29/21 08:13	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 15:10	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 15:10	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 15:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			12/29/21 10:17	12/31/21 15:10	1
<i>o</i> -Terphenyl	102		70 - 130			12/29/21 10:17	12/31/21 15:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1240		49.5	mg/Kg			12/31/21 03:02	10

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS22**  
Date Collected: 12/21/21 14:40  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-6**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 08:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 08:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 08:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/28/21 13:02	12/29/21 08:34	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/28/21 13:02	12/29/21 08:34	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/28/21 13:02	12/29/21 08:34	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	112			70 - 130		12/28/21 13:02	12/29/21 08:34	1
1,4-Difluorobenzene (Surr)	107			70 - 130		12/28/21 13:02	12/29/21 08:34	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	94.7		49.9	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 15:31	1
<b>Diesel Range Organics (Over C10-C28)</b>	<b>94.7</b>		49.9	mg/Kg		12/29/21 10:17	12/31/21 15:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 15:31	1
<b>Surrogate</b>								
1-Chlorooctane	89		70 - 130			12/29/21 10:17	12/31/21 15:31	1
<i>o-Terphenyl</i>	103		70 - 130			12/29/21 10:17	12/31/21 15:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3900		25.1	mg/Kg			12/31/21 03:38	5

**Client Sample ID: FS23**

**Lab Sample ID: 890-1754-7**  
Matrix: Solid

Date Collected: 12/21/21 14:55  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 17:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 17:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 17:31	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/03/22 09:02	01/03/22 17:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 17:31	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/03/22 09:02	01/03/22 17:31	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	179	S1+		70 - 130		01/03/22 09:02	01/03/22 17:31	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS23**  
Date Collected: 12/21/21 14:55  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-7**  
Matrix: Solid

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

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	108		70 - 130	01/03/22 09:02	01/03/22 17:31	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 15:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 15:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 15:52	1

**Surrogate**

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	12/29/21 10:17	12/31/21 15:52	1
o-Terphenyl	108		70 - 130	12/29/21 10:17	12/31/21 15:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	607		24.9	mg/Kg			12/31/21 03:50	5

**Client Sample ID: FS24****Lab Sample ID: 890-1754-8**

Matrix: Solid

Date Collected: 12/21/21 15:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 17:57	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 17:57	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 17:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/03/22 09:02	01/03/22 17:57	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 17:57	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/03/22 09:02	01/03/22 17:57	1

**Surrogate**

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	167	S1+	70 - 130	01/03/22 09:02	01/03/22 17:57	1
1,4-Difluorobenzene (Surr)	102		70 - 130	01/03/22 09:02	01/03/22 17:57	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/03/22 13:55	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS24**  
Date Collected: 12/21/21 15:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-8**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 16:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 16:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 16:12	1

**Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	12/29/21 10:17	12/31/21 16:12	1
o-Terphenyl	102		70 - 130	12/29/21 10:17	12/31/21 16:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	872		4.97	mg/Kg			12/31/21 04:25	1

**Client Sample ID: FS25**

**Lab Sample ID: 890-1754-9**  
Matrix: Solid

Date Collected: 12/21/21 15:05

Date Received: 12/23/21 13:00

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 19:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 19:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 19:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 19:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 19:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 19:42	1

**Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	175	S1+	70 - 130	01/03/22 09:02	01/03/22 19:42	1
1,4-Difluorobenzene (Surr)	91		70 - 130	01/03/22 09:02	01/03/22 19:42	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 16:54	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 16:54	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 16:54	1

**Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	12/29/21 10:17	12/31/21 16:54	1
o-Terphenyl	106		70 - 130	12/29/21 10:17	12/31/21 16:54	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS25**  
Date Collected: 12/21/21 15:05  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-9**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2680		24.8	mg/Kg			12/31/21 04:37	5

**Client Sample ID: FS26**

**Lab Sample ID: 890-1754-10**  
Matrix: Solid

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 20:08	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 20:08	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 20:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 20:08	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 20:08	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 20:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	159	S1+	70 - 130			01/03/22 09:02	01/03/22 20:08	1
1,4-Difluorobenzene (Surr)	101		70 - 130			01/03/22 09:02	01/03/22 20:08	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/03/22 12:57	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 17:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 17:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 17:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130			12/29/21 10:17	12/31/21 17:14	1
<i>o</i> -Terphenyl	102		70 - 130			12/29/21 10:17	12/31/21 17:14	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1090		25.3	mg/Kg			12/31/21 04:49	5

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS27**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-11**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 20:35		1
Toluene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 20:35		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 20:35		1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg	01/03/22 09:02	01/03/22 20:35		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 20:35		1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg	01/03/22 09:02	01/03/22 20:35		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	151	S1+		70 - 130		01/03/22 09:02	01/03/22 20:35	1
1,4-Difluorobenzene (Surr)	84			70 - 130		01/03/22 09:02	01/03/22 20:35	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 17:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 17:35	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 17:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			12/29/21 10:17	12/31/21 17:35	1
<i>o</i> -Terphenyl	107		70 - 130			12/29/21 10:17	12/31/21 17:35	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1200		25.1	mg/Kg			12/31/21 05:01	5

**Client Sample ID: FS28**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-12**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg	01/03/22 09:02	01/03/22 21:02		1
Toluene	<0.00199	U	0.00199	mg/Kg	01/03/22 09:02	01/03/22 21:02		1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg	01/03/22 09:02	01/03/22 21:02		1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg	01/03/22 09:02	01/03/22 21:02		1
o-Xylene	<0.00199	U	0.00199	mg/Kg	01/03/22 09:02	01/03/22 21:02		1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg	01/03/22 09:02	01/03/22 21:02		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	166	S1+		70 - 130		01/03/22 09:02	01/03/22 21:02	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS28**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-12**  
Matrix: Solid

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

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	01/03/22 09:02	01/03/22 21:02	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 17:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 17:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 17:56	1

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	12/29/21 10:17	12/31/21 17:56	1
o-Terphenyl	104		70 - 130	12/29/21 10:17	12/31/21 17:56	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1270		49.8	mg/Kg			12/31/21 05:13	10

**Client Sample ID: FS29****Lab Sample ID: 890-1754-13**

Date Collected: 12/21/21 00:00

Matrix: Solid

Date Received: 12/23/21 13:00

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 21:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 21:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 21:29	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		01/03/22 09:02	01/03/22 21:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 21:29	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		01/03/22 09:02	01/03/22 21:29	1

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	174	S1+	70 - 130	01/03/22 09:02	01/03/22 21:29	1
1,4-Difluorobenzene (Surr)	96		70 - 130	01/03/22 09:02	01/03/22 21:29	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/03/22 13:55	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS29**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-13**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/29/21 10:17	12/31/21 18:17	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/29/21 10:17	12/31/21 18:17	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/29/21 10:17	12/31/21 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	12/29/21 10:17	12/31/21 18:17	1
o-Terphenyl	106		70 - 130	12/29/21 10:17	12/31/21 18:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1710		24.8	mg/Kg			12/31/21 05:24	5

**Client Sample ID: FS30**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-14**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 21:55	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 21:55	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 21:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 21:55	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 21:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 21:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	195	S1+	70 - 130			01/03/22 09:02	01/03/22 21:55	1
1,4-Difluorobenzene (Surr)	104		70 - 130			01/03/22 09:02	01/03/22 21:55	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			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 18:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 18:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	12/29/21 10:17	12/31/21 18:37	1
o-Terphenyl	108		70 - 130	12/29/21 10:17	12/31/21 18:37	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS30**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-14**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	277		24.9	mg/Kg			12/31/21 05:36	5

**Client Sample ID: FS31**

**Lab Sample ID: 890-1754-15**  
Matrix: Solid

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 22:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 22:22	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 22:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 22:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/03/22 09:02	01/03/22 22:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/03/22 09:02	01/03/22 22:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	171	S1+	70 - 130			01/03/22 09:02	01/03/22 22:22	1
1,4-Difluorobenzene (Surr)	97		70 - 130			01/03/22 09:02	01/03/22 22:22	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 18:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 18:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 18:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			12/29/21 10:17	12/31/21 18:58	1
<i>o</i> -Terphenyl	119		70 - 130			12/29/21 10:17	12/31/21 18:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	736		24.9	mg/Kg			01/03/22 11:10	5

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS32**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-16**  
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 22:48		1
Toluene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 22:48		1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 22:48		1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg	01/03/22 09:02	01/03/22 22:48		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 22:48		1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg	01/03/22 09:02	01/03/22 22:48		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	164	S1+		70 - 130		01/03/22 09:02	01/03/22 22:48	1
1,4-Difluorobenzene (Surr)	106			70 - 130		01/03/22 09:02	01/03/22 22:48	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 19:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 19:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/29/21 10:17	12/31/21 19:19	1
<b>Surrogate</b>								
1-Chlorooctane	99		70 - 130			12/29/21 10:17	12/31/21 19:19	1
<i>o</i> -Terphenyl	114		70 - 130			12/29/21 10:17	12/31/21 19:19	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	618		25.0	mg/Kg			01/03/22 11:33	5

**Client Sample ID: FS33**

**Lab Sample ID: 890-1754-17**  
Matrix: Solid

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg	01/03/22 09:02	01/03/22 23:15		1
Toluene	<0.00202	U	0.00202	mg/Kg	01/03/22 09:02	01/03/22 23:15		1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg	01/03/22 09:02	01/03/22 23:15		1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg	01/03/22 09:02	01/03/22 23:15		1
o-Xylene	<0.00202	U	0.00202	mg/Kg	01/03/22 09:02	01/03/22 23:15		1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg	01/03/22 09:02	01/03/22 23:15		1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	184	S1+		70 - 130		01/03/22 09:02	01/03/22 23:15	1

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**Client Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS33**  
Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

**Lab Sample ID: 890-1754-17**  
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	01/03/22 09:02	01/03/22 23:15	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/03/22 13:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 19:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 19:40	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 19:40	1

**Surrogate**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	12/29/21 10:17	12/31/21 19:40	1
o-Terphenyl	114		70 - 130	12/29/21 10:17	12/31/21 19:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1080		24.9	mg/Kg			01/03/22 11:41	5

**Client Sample ID: FS34****Lab Sample ID: 890-1754-18**

Matrix: Solid

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00  
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 23:41	1
Toluene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 23:41	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 23:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		01/03/22 09:02	01/03/22 23:41	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		01/03/22 09:02	01/03/22 23:41	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		01/03/22 09:02	01/03/22 23:41	1

**Surrogate**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	159	S1+	70 - 130	01/03/22 09:02	01/03/22 23:41	1
1,4-Difluorobenzene (Surr)	91		70 - 130	01/03/22 09:02	01/03/22 23:41	1

**Method: Total BTEX - Total BTEX Calculation**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			01/03/22 13:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/03/22 13:55	1

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**Client Sample Results**

Client: WSP USA Inc.  
 Project/Site: Nash Unit 39

Job ID: 890-1754-1  
 SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS34**  
**Date Collected: 12/21/21 00:00**  
**Date Received: 12/23/21 13:00**  
**Sample Depth: 0.5**

**Lab Sample ID: 890-1754-18**  
**Matrix: Solid**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 20:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 20:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/29/21 10:17	12/31/21 20:00	1

**Surrogate**

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	12/29/21 10:17	12/31/21 20:00	1
<i>o</i> -Terphenyl	103		70 - 130	12/29/21 10:17	12/31/21 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1920		24.8	mg/Kg			01/03/22 11:49	5

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**Surrogate Summary**

Client: WSP USA Inc.

Job ID: 890-1754-1

Project/Site: Nash Unit 39

SDG: 31403236.020.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC)****Matrix: Solid****Prep Type: Total/NA**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Percent Surrogate Recovery (Acceptance Limits)</b>	
		<b>BFB1 (70-130)</b>	<b>DFBZ1 (70-130)</b>
880-9683-A-1-A MS	Matrix Spike	132 S1+	73
880-9683-A-1-B MSD	Matrix Spike Duplicate	108	95
880-9746-A-2-F MS	Matrix Spike	144 S1+	104
880-9746-A-2-G MSD	Matrix Spike Duplicate	145 S1+	90
890-1754-1	FS17	169 S1+	127
890-1754-2	FS18	144 S1+	124
890-1754-3	FS19	114	81
890-1754-4	FS20	108	102
890-1754-5	FS21	111	86
890-1754-6	FS22	112	107
890-1754-7	FS23	179 S1+	108
890-1754-8	FS24	167 S1+	102
890-1754-9	FS25	175 S1+	91
890-1754-10	FS26	159 S1+	101
890-1754-11	FS27	151 S1+	84
890-1754-12	FS28	166 S1+	91
890-1754-13	FS29	174 S1+	96
890-1754-14	FS30	195 S1+	104
890-1754-15	FS31	171 S1+	97
890-1754-16	FS32	164 S1+	106
890-1754-17	FS33	184 S1+	104
890-1754-18	FS34	159 S1+	91
890-1757-A-1-B MS	Matrix Spike	116	81
890-1757-A-1-C MSD	Matrix Spike Duplicate	108	98
LCS 880-15651/1-A	Lab Control Sample	101	107
LCS 880-15651/1-A	Lab Control Sample	110	103
LCS 880-15693/1-A	Lab Control Sample	99	96
LCS 880-15709/1-A	Lab Control Sample	137 S1+	100
LCSD 880-15651/2-A	Lab Control Sample Dup	103	95
LCSD 880-15651/2-A	Lab Control Sample Dup	109	94
LCSD 880-15693/2-A	Lab Control Sample Dup	146 S1+	109
LCSD 880-15709/2-A	Lab Control Sample Dup	137 S1+	91
MB 880-15624/5-A	Method Blank	116	113
MB 880-15651/5-A	Method Blank	108	108
MB 880-15651/5-A	Method Blank	104	102
MB 880-15709/5-A	Method Blank	93	88

**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**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Percent Surrogate Recovery (Acceptance Limits)</b>	
		<b>1CO1 (70-130)</b>	<b>OTPH1 (70-130)</b>
890-1750-A-81-F MS	Matrix Spike	73	74
890-1750-A-81-G MSD	Matrix Spike Duplicate	73	74
890-1754-1	FS17	92	107

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**Surrogate Summary**

Client: WSP USA Inc.

Job ID: 890-1754-1

Project/Site: Nash Unit 39

SDG: 31403236.020.0129 task 05.02

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		1CO1 (70-130)	OTPH1 (70-130)	
890-1754-2	FS18	86	99	
890-1754-3	FS19	99	118	
890-1754-4	FS20	85	100	
890-1754-5	FS21	88	102	
890-1754-6	FS22	89	103	
890-1754-7	FS23	93	108	
890-1754-8	FS24	88	102	
890-1754-9	FS25	91	106	
890-1754-10	FS26	86	102	
890-1754-11	FS27	94	107	
890-1754-12	FS28	90	104	
890-1754-13	FS29	92	106	
890-1754-14	FS30	93	108	
890-1754-15	FS31	102	119	
890-1754-16	FS32	99	114	
890-1754-17	FS33	96	114	
890-1754-18	FS34	90	103	
LCS 880-15722/2-A	Lab Control Sample	107	101	
LCSD 880-15722/3-A	Lab Control Sample Dup	111	106	
MB 880-15722/1-A	Method Blank	102	127	

**Surrogate Legend**

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Xenco, Carlsbad

**QC Sample Results**

Client: WSP USA Inc.

Job ID: 890-1754-1

Project/Site: Nash Unit 39

SDG: 31403236.020.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC)****Lab Sample ID: MB 880-15624/5-A****Matrix: Solid****Analysis Batch: 15623****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 15624**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	12/28/21 10:04	12/28/21 13:45		1	
Toluene	<0.00200	U	0.00200		mg/Kg	12/28/21 10:04	12/28/21 13:45		1	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	12/28/21 10:04	12/28/21 13:45		1	
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	12/28/21 10:04	12/28/21 13:45		1	
o-Xylene	<0.00200	U	0.00200		mg/Kg	12/28/21 10:04	12/28/21 13:45		1	
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	12/28/21 10:04	12/28/21 13:45		1	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	116		70 - 130				12/28/21 10:04	12/28/21 13:45		1
1,4-Difluorobenzene (Surr)	113		70 - 130				12/28/21 10:04	12/28/21 13:45		1

**Lab Sample ID: MB 880-15651/5-A****Matrix: Solid****Analysis Batch: 15623****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 15651**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 00:39		1	
Toluene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 00:39		1	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 00:39		1	
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	12/28/21 13:02	12/29/21 00:39		1	
o-Xylene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 00:39		1	
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	12/28/21 13:02	12/29/21 00:39		1	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	108		70 - 130				12/28/21 13:02	12/29/21 00:39		1
1,4-Difluorobenzene (Surr)	108		70 - 130				12/28/21 13:02	12/29/21 00:39		1

**Lab Sample ID: MB 880-15651/5-A****Matrix: Solid****Analysis Batch: 15714****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 15651**

Analyte	MB	MB	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Benzene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 12:43		1	
Toluene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 12:43		1	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 12:43		1	
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg	12/28/21 13:02	12/29/21 12:43		1	
o-Xylene	<0.00200	U	0.00200		mg/Kg	12/28/21 13:02	12/29/21 12:43		1	
Xylenes, Total	<0.00400	U	0.00400		mg/Kg	12/28/21 13:02	12/29/21 12:43		1	
Surrogate	MB	MB	%Recovery	Qualifier	Limits		D	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
4-Bromofluorobenzene (Surr)	104		70 - 130				12/28/21 13:02	12/29/21 12:43		1
1,4-Difluorobenzene (Surr)	102		70 - 130				12/28/21 13:02	12/29/21 12:43		1

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**QC Sample Results**

Client: WSP USA Inc.

Project/Site: Nash Unit 39

Job ID: 890-1754-1

SDG: 31403236.020.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC) (Continued)****Lab Sample ID: LCS 880-15651/1-A****Matrix: Solid****Analysis Batch: 15623****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 15651**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier				Limits	
Benzene	0.100	0.08352		mg/Kg		84	70 - 130	
Toluene	0.100	0.07913		mg/Kg		79	70 - 130	
Ethylbenzene	0.100	0.07795		mg/Kg		78	70 - 130	
m-Xylene & p-Xylene	0.200	0.1548		mg/Kg		77	70 - 130	
o-Xylene	0.100	0.07982		mg/Kg		80	70 - 130	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

**Lab Sample ID: LCS 880-15651/1-A****Matrix: Solid****Analysis Batch: 15714****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 15651**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier				Limits	
Benzene	0.100	0.05617	*-	mg/Kg		56	70 - 130	
Toluene	0.100	0.05333	*-	mg/Kg		53	70 - 130	
Ethylbenzene	0.100	0.05221	*-	mg/Kg		52	70 - 130	
m-Xylene & p-Xylene	0.200	0.1064	*-	mg/Kg		53	70 - 130	
o-Xylene	0.100	0.05333	*-	mg/Kg		53	70 - 130	

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

**Lab Sample ID: LCSD 880-15651/2-A****Matrix: Solid****Analysis Batch: 15623****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 15651**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
		Result	Qualifier				Limits		
Benzene	0.100	0.07468		mg/Kg		75	70 - 130	11	35
Toluene	0.100	0.07364		mg/Kg		74	70 - 130	7	35
Ethylbenzene	0.100	0.07284		mg/Kg		73	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1461		mg/Kg		73	70 - 130	6	35
o-Xylene	0.100	0.07519		mg/Kg		75	70 - 130	6	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

**Lab Sample ID: LCSD 880-15651/2-A****Matrix: Solid****Analysis Batch: 15714****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 15651**

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
		Result	Qualifier				Limits		
Benzene	0.100	0.05358	*-	mg/Kg		54	70 - 130	5	35
Toluene	0.100	0.05006	*-	mg/Kg		50	70 - 130	6	35
Ethylbenzene	0.100	0.04959	*-	mg/Kg		50	70 - 130	5	35

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**QC Sample Results**

Client: WSP USA Inc.

Job ID: 890-1754-1

Project/Site: Nash Unit 39

SDG: 31403236.020.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC) (Continued)****Lab Sample ID: LCSD 880-15651/2-A****Client Sample ID: Lab Control Sample Dup****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15714****Prep Batch: 15651**

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
		Added	Result	Qualifier						
m-Xylene & p-Xylene		0.200	0.1057	*-	mg/Kg		53	70 - 130	1	35
o-Xylene		0.100	0.05187	*	mg/Kg		52	70 - 130	3	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

**Lab Sample ID: 890-1757-A-1-B MS****Client Sample ID: Matrix Spike****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15623****Prep Batch: 15651**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	RPD
	Result	Qualifier	Added	Result	Qualifier					
Benzene	<0.00200	U F1	0.0998	0.05503	F1	mg/Kg		55	70 - 130	
Toluene	<0.00200	U F1	0.0998	0.05714	F1	mg/Kg		57	70 - 130	
Ethylbenzene	<0.00200	U F1	0.0998	0.05026	F1	mg/Kg		50	70 - 130	
m-Xylene & p-Xylene	<0.00399	U F1	0.200	0.1116	F1	mg/Kg		56	70 - 130	
o-Xylene	<0.00200	U F1	0.0998	0.05151	F1	mg/Kg		52	70 - 130	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

**Lab Sample ID: 890-1757-A-1-C MSD****Client Sample ID: Matrix Spike Duplicate****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15623****Prep Batch: 15651**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD
	Result	Qualifier	Added	Result	Qualifier					
Benzene	<0.00200	U F1	0.101	0.06147	F1	mg/Kg		61	70 - 130	11
Toluene	<0.00200	U F1	0.101	0.05994	F1	mg/Kg		59	70 - 130	5
Ethylbenzene	<0.00200	U F1	0.101	0.06056	F1	mg/Kg		60	70 - 130	19
m-Xylene & p-Xylene	<0.00399	U F1	0.202	0.1227	F1	mg/Kg		61	70 - 130	9
o-Xylene	<0.00200	U F1	0.101	0.06165	F1	mg/Kg		61	70 - 130	18

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

**Lab Sample ID: LCS 880-15693/1-A****Client Sample ID: Lab Control Sample****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15714****Prep Batch: 15693**

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

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

Lab Sample ID: LCSD 880-15693/2-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 15714

Prep Batch: 15693

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	0.100	0.07766		mg/Kg		78	70 - 130	NaN	35
Toluene	0.100	0.07298		mg/Kg		73	70 - 130	NaN	35
Ethylbenzene	0.100	0.09873		mg/Kg		99	70 - 130	NaN	35
m-Xylene & p-Xylene	0.200	0.1998		mg/Kg		100	70 - 130	NaN	35
o-Xylene	0.100	0.1009		mg/Kg		101	70 - 130	NaN	35

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	146	S1+	70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-9683-A-1-A MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 15714

Prep Batch: 15693

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	RPD
	Result	Qualifier	Added	Result	Qualifier					
Benzene	<0.00199	U F2 F1	0.0996	0.03709	F1	mg/Kg		37	70 - 130	
Toluene	<0.00199	U F1	0.0996	0.05151	F1	mg/Kg		52	70 - 130	
Ethylbenzene	<0.00199	U F1	0.0996	0.05531	F1	mg/Kg		56	70 - 130	
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1246	F1	mg/Kg		63	70 - 130	
o-Xylene	<0.00199	U F1	0.0996	0.06210	F1	mg/Kg		62	70 - 130	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130
1,4-Difluorobenzene (Surr)	73		70 - 130

Lab Sample ID: 880-9683-A-1-B MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 15714

Prep Batch: 15693

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD
	Result	Qualifier	Added	Result	Qualifier					
Benzene	<0.00199	U F2 F1	0.0998	0.06682	F2 F1	mg/Kg		67	70 - 130	57
Toluene	<0.00199	U F1	0.0998	0.06868	F1	mg/Kg		69	70 - 130	29
Ethylbenzene	<0.00199	U F1	0.0998	0.06890	F1	mg/Kg		69	70 - 130	22
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1420		mg/Kg		71	70 - 130	13
o-Xylene	<0.00199	U F1	0.0998	0.07328		mg/Kg		73	70 - 130	17

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: MB 880-15709/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 15877

Prep Batch: 15709

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 13:34	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 13:34	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/03/22 09:02	01/03/22 13:34	1

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**QC Sample Results**

Client: WSP USA Inc.

Job ID: 890-1754-1

Project/Site: Nash Unit 39

SDG: 31403236.020.0129 task 05.02

**Method: 8021B - Volatile Organic Compounds (GC) (Continued)****Lab Sample ID: MB 880-15709/5-A****Client Sample ID: Method Blank****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15877****Prep Batch: 15709**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg	01/03/22 09:02	01/03/22 13:34		1
o-Xylene	<0.00200	U	0.00200	mg/Kg	01/03/22 09:02	01/03/22 13:34		1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg	01/03/22 09:02	01/03/22 13:34		1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	93		70 - 130	01/03/22 09:02	01/03/22 13:34	1
1,4-Difluorobenzene (Surr)	88		70 - 130	01/03/22 09:02	01/03/22 13:34	1

**Lab Sample ID: LCS 880-15709/1-A****Client Sample ID: Lab Control Sample****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15877****Prep Batch: 15709**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier					
Benzene	0.100	0.07683		mg/Kg	77	70 - 130		
Toluene	0.100	0.08339		mg/Kg	83	70 - 130		
Ethylbenzene	0.100	0.07121		mg/Kg	71	70 - 130		
m-Xylene & p-Xylene	0.200	0.1433		mg/Kg	72	70 - 130		
o-Xylene	0.100	0.07074		mg/Kg	71	70 - 130		

Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130			
1,4-Difluorobenzene (Surr)	100		70 - 130			

**Lab Sample ID: LCSD 880-15709/2-A****Client Sample ID: Lab Control Sample Dup****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15877****Prep Batch: 15709**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Benzene	0.100	0.07649		mg/Kg	76	70 - 130		0	35
Toluene	0.100	0.07353		mg/Kg	74	70 - 130		13	35
Ethylbenzene	0.100	0.07195		mg/Kg	72	70 - 130		1	35
m-Xylene & p-Xylene	0.200	0.1548		mg/Kg	77	70 - 130		8	35
o-Xylene	0.100	0.07277		mg/Kg	73	70 - 130		3	35

Surrogate	LCSD	LCSD	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	137	S1+	70 - 130			
1,4-Difluorobenzene (Surr)	91		70 - 130			

**Lab Sample ID: 880-9746-A-2-F MS****Client Sample ID: Matrix Spike****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 15877****Prep Batch: 15709**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Benzene	<0.00200	U	0.0998	0.07290		mg/Kg	73	70 - 130	
Toluene	<0.00200	U	0.0998	0.07350		mg/Kg	74	70 - 130	
Ethylbenzene	<0.00200	U	0.0998	0.07305		mg/Kg	73	70 - 130	
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1467		mg/Kg	74	70 - 130	
o-Xylene	<0.00200	U	0.0998	0.07196		mg/Kg	72	70 - 130	

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

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

<b>Surrogate</b>	<b>MS MS</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>
4-Bromofluorobenzene (Surf)	144	S1+			70 - 130
1,4-Difluorobenzene (Surr)	104				70 - 130

**Lab Sample ID: 880-9746-A-2-G MSD****Matrix: Solid****Analysis Batch: 15877****Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 15709**

<b>Analyte</b>	<b>Sample</b>	<b>Sample</b>	<b>Spike</b>	<b>MSD</b>	<b>MSD</b>	<b>Unit</b>	<b>D</b>	<b>%Rec.</b>	<b>RPD</b>	<b>Limit</b>
	<b>Result</b>	<b>Qualifier</b>	<b>Added</b>	<b>Result</b>	<b>Qualifier</b>					
Benzene	<0.00200	U	0.0994	0.07269		mg/Kg	73	70 - 130	0	35
Toluene	<0.00200	U	0.0994	0.06970		mg/Kg	70	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.0994	0.07455		mg/Kg	75	70 - 130	2	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1489		mg/Kg	75	70 - 130	1	35
o-Xylene	<0.00200	U	0.0994	0.07555		mg/Kg	76	70 - 130	5	35

<b>Surrogate</b>	<b>MSD MS</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>
4-Bromofluorobenzene (Surf)	145	S1+			70 - 130
1,4-Difluorobenzene (Surr)	90				70 - 130

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)****Lab Sample ID: MB 880-15722/1-A****Matrix: Solid****Analysis Batch: 15825****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 15722**

<b>Analyte</b>	<b>MB</b>	<b>MB</b>	<b>RL</b>	<b>Unit</b>	<b>D</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
	<b>Result</b>	<b>Qualifier</b>				<b>Prepared</b>	<b>Analyzed</b>	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg	12/29/21 10:17	12/31/21 11:25		1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg	12/29/21 10:17	12/31/21 11:25		1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg	12/29/21 10:17	12/31/21 11:25		1

<b>Surrogate</b>	<b>MB</b>	<b>MB</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
	<b>%Recovery</b>	<b>Qualifier</b>				
1-Chlorooctane	102		70 - 130	12/29/21 10:17	12/31/21 11:25	1
o-Terphenyl	127		70 - 130	12/29/21 10:17	12/31/21 11:25	1

**Lab Sample ID: LCS 880-15722/2-A****Matrix: Solid****Analysis Batch: 15825****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 15722**

<b>Analyte</b>	<b>Spike</b>	<b>LCS</b>	<b>LCS</b>	<b>Unit</b>	<b>D</b>	<b>%Rec.</b>	<b>Limits</b>
	<b>Added</b>	<b>Result</b>	<b>Qualifier</b>				
Gasoline Range Organics (GRO)-C6-C10	1000	947.1		mg/Kg	95	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	1174		mg/Kg	117	70 - 130	

<b>Surrogate</b>	<b>LCS</b>	<b>LCS</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
	<b>%Recovery</b>	<b>Qualifier</b>				
1-Chlorooctane	107		70 - 130	12/29/21 10:17	12/31/21 11:25	1
o-Terphenyl	101		70 - 130	12/29/21 10:17	12/31/21 11:25	1

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

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

**Lab Sample ID: LCSD 880-15722/3-A** **Client Sample ID: Lab Control Sample Dup**  
**Matrix: Solid** **Prep Type: Total/NA**  
**Analysis Batch: 15825** **Prep Batch: 15722**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1006		mg/Kg		101	70 - 130	6 20
Diesel Range Organics (Over C10-C28)	1000	1218		mg/Kg		122	70 - 130	4 20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	106		70 - 130

**Lab Sample ID: 890-1750-A-81-F MS** **Client Sample ID: Matrix Spike**  
**Matrix: Solid** **Prep Type: Total/NA**  
**Analysis Batch: 15825** **Prep Batch: 15722**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	996	435.4	F1	mg/Kg		44	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	401.0	F1	mg/Kg		40	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	74		70 - 130

**Lab Sample ID: 890-1750-A-81-G MSD** **Client Sample ID: Matrix Spike Duplicate**  
**Matrix: Solid** **Prep Type: Total/NA**  
**Analysis Batch: 15825** **Prep Batch: 15722**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	999	450.5	F1	mg/Kg		45	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	407.9	F1	mg/Kg		41	70 - 130	2	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	74		70 - 130

**Method: 300.0 - Anions, Ion Chromatography**

**Lab Sample ID: MB 880-15694/1-A** **Client Sample ID: Method Blank**  
**Matrix: Solid** **Prep Type: Soluble**  
**Analysis Batch: 15818**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/30/21 23:40	1

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Method: 300.0 - Anions, Ion Chromatography (Continued)****Lab Sample ID: LCS 880-15694/2-A****Matrix: Solid****Analysis Batch: 15818**

Analyte		Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits	5
		Added	Result	Qualifier						
Chloride		250	259.4		mg/Kg		104	90 - 110		6

**Lab Sample ID: LCSD 880-15694/3-A****Matrix: Solid****Analysis Batch: 15818**

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit	8
		Added	Result	Qualifier							
Chloride		250	260.1		mg/Kg		104	90 - 110	0	20	9

**Lab Sample ID: 890-1754-5 MS****Matrix: Solid****Analysis Batch: 15818**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits	12
	Result	Qualifier	Added	Result	Qualifier						
Chloride	1240		2480	3826		mg/Kg		105	90 - 110		11

**Lab Sample ID: 890-1754-5 MSD****Matrix: Solid****Analysis Batch: 15818**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Chloride	1240		2480	3895		mg/Kg		107	90 - 110	2	20

**Lab Sample ID: MB 880-15703/1-A****Matrix: Solid****Analysis Batch: 15914**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac	13
	Result	Qualifier							
Chloride	<5.00	U	5.00	mg/Kg			01/03/22 08:25	1	14

**Lab Sample ID: LCS 880-15703/2-A****Matrix: Solid****Analysis Batch: 15914**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	14
	Added	Result	Qualifier					
Chloride	250	241.7		mg/Kg		97	90 - 110	

**Lab Sample ID: LCSD 880-15703/3-A****Matrix: Solid****Analysis Batch: 15914**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
Chloride	250	241.2		mg/Kg		96	90 - 110	0	20

**Lab Sample ID: 880-9699-A-9-C MS****Matrix: Solid****Analysis Batch: 15914**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	15
	Result	Qualifier	Added	Result	Qualifier					
Chloride	2400		1250	3711		mg/Kg		105	90 - 110	

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**QC Sample Results**

Client: WSP USA Inc.

Job ID: 890-1754-1

Project/Site: Nash Unit 39

SDG: 31403236.020.0129 task 05.02

**Method: 300.0 - Anions, Ion Chromatography****Lab Sample ID: 880-9699-A-9-D MSD****Client Sample ID: Matrix Spike Duplicate****Matrix: Solid****Prep Type: Soluble****Analysis Batch: 15914**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier			%Rec		
Chloride	2400		1250	3705		mg/Kg	104	90 - 110	0	20

**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**GC VOA****Analysis Batch: 15623**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Total/NA	Solid	8021B	15651
890-1754-2	FS18	Total/NA	Solid	8021B	15651
890-1754-3	FS19	Total/NA	Solid	8021B	15651
890-1754-4	FS20	Total/NA	Solid	8021B	15651
890-1754-5	FS21	Total/NA	Solid	8021B	15651
890-1754-6	FS22	Total/NA	Solid	8021B	15651
MB 880-15624/5-A	Method Blank	Total/NA	Solid	8021B	15624
MB 880-15651/5-A	Method Blank	Total/NA	Solid	8021B	15651
LCS 880-15651/1-A	Lab Control Sample	Total/NA	Solid	8021B	15651
LCSD 880-15651/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15651
890-1757-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	15651
890-1757-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15651

**Prep Batch: 15624**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15624/5-A	Method Blank	Total/NA	Solid	5035	11

**Prep Batch: 15651**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Total/NA	Solid	5035	13
890-1754-2	FS18	Total/NA	Solid	5035	12
890-1754-3	FS19	Total/NA	Solid	5035	14
890-1754-4	FS20	Total/NA	Solid	5035	
890-1754-5	FS21	Total/NA	Solid	5035	
890-1754-6	FS22	Total/NA	Solid	5035	
MB 880-15651/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15651/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15651/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1757-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1757-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Prep Batch: 15693**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-15693/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15693/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9683-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-9683-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Prep Batch: 15709**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-7	FS23	Total/NA	Solid	5035	
890-1754-8	FS24	Total/NA	Solid	5035	
890-1754-9	FS25	Total/NA	Solid	5035	
890-1754-10	FS26	Total/NA	Solid	5035	
890-1754-11	FS27	Total/NA	Solid	5035	
890-1754-12	FS28	Total/NA	Solid	5035	
890-1754-13	FS29	Total/NA	Solid	5035	
890-1754-14	FS30	Total/NA	Solid	5035	
890-1754-15	FS31	Total/NA	Solid	5035	
890-1754-16	FS32	Total/NA	Solid	5035	
890-1754-17	FS33	Total/NA	Solid	5035	

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**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**GC VOA (Continued)****Prep Batch: 15709 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-18	FS34	Total/NA	Solid	5035	
MB 880-15709/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-15709/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-15709/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9746-A-2-F MS	Matrix Spike	Total/NA	Solid	5035	
880-9746-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 15714**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-15651/5-A	Method Blank	Total/NA	Solid	8021B	15651
LCS 880-15651/1-A	Lab Control Sample	Total/NA	Solid	8021B	15651
LCS 880-15693/1-A	Lab Control Sample	Total/NA	Solid	8021B	15693
LCSD 880-15651/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15651
LCSD 880-15693/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15693
880-9683-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	15693
880-9683-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15693

**Analysis Batch: 15877**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-7	FS23	Total/NA	Solid	8021B	15709
890-1754-8	FS24	Total/NA	Solid	8021B	15709
890-1754-9	FS25	Total/NA	Solid	8021B	15709
890-1754-10	FS26	Total/NA	Solid	8021B	15709
890-1754-11	FS27	Total/NA	Solid	8021B	15709
890-1754-12	FS28	Total/NA	Solid	8021B	15709
890-1754-13	FS29	Total/NA	Solid	8021B	15709
890-1754-14	FS30	Total/NA	Solid	8021B	15709
890-1754-15	FS31	Total/NA	Solid	8021B	15709
890-1754-16	FS32	Total/NA	Solid	8021B	15709
890-1754-17	FS33	Total/NA	Solid	8021B	15709
890-1754-18	FS34	Total/NA	Solid	8021B	15709
MB 880-15709/5-A	Method Blank	Total/NA	Solid	8021B	15709
LCS 880-15709/1-A	Lab Control Sample	Total/NA	Solid	8021B	15709
LCSD 880-15709/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	15709
880-9746-A-2-F MS	Matrix Spike	Total/NA	Solid	8021B	15709
880-9746-A-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	15709

**Analysis Batch: 15908**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Total/NA	Solid	Total BTEX	
890-1754-2	FS18	Total/NA	Solid	Total BTEX	
890-1754-3	FS19	Total/NA	Solid	Total BTEX	
890-1754-4	FS20	Total/NA	Solid	Total BTEX	
890-1754-5	FS21	Total/NA	Solid	Total BTEX	
890-1754-6	FS22	Total/NA	Solid	Total BTEX	
890-1754-7	FS23	Total/NA	Solid	Total BTEX	
890-1754-8	FS24	Total/NA	Solid	Total BTEX	
890-1754-9	FS25	Total/NA	Solid	Total BTEX	
890-1754-10	FS26	Total/NA	Solid	Total BTEX	
890-1754-11	FS27	Total/NA	Solid	Total BTEX	
890-1754-12	FS28	Total/NA	Solid	Total BTEX	

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**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**GC VOA (Continued)****Analysis Batch: 15908 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-13	FS29	Total/NA	Solid	Total BTEX	
890-1754-14	FS30	Total/NA	Solid	Total BTEX	
890-1754-15	FS31	Total/NA	Solid	Total BTEX	
890-1754-16	FS32	Total/NA	Solid	Total BTEX	
890-1754-17	FS33	Total/NA	Solid	Total BTEX	
890-1754-18	FS34	Total/NA	Solid	Total BTEX	

**GC Semi VOA****Prep Batch: 15722**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Total/NA	Solid	8015NM Prep	
890-1754-2	FS18	Total/NA	Solid	8015NM Prep	
890-1754-3	FS19	Total/NA	Solid	8015NM Prep	
890-1754-4	FS20	Total/NA	Solid	8015NM Prep	
890-1754-5	FS21	Total/NA	Solid	8015NM Prep	
890-1754-6	FS22	Total/NA	Solid	8015NM Prep	
890-1754-7	FS23	Total/NA	Solid	8015NM Prep	
890-1754-8	FS24	Total/NA	Solid	8015NM Prep	
890-1754-9	FS25	Total/NA	Solid	8015NM Prep	
890-1754-10	FS26	Total/NA	Solid	8015NM Prep	
890-1754-11	FS27	Total/NA	Solid	8015NM Prep	
890-1754-12	FS28	Total/NA	Solid	8015NM Prep	
890-1754-13	FS29	Total/NA	Solid	8015NM Prep	
890-1754-14	FS30	Total/NA	Solid	8015NM Prep	
890-1754-15	FS31	Total/NA	Solid	8015NM Prep	
890-1754-16	FS32	Total/NA	Solid	8015NM Prep	
890-1754-17	FS33	Total/NA	Solid	8015NM Prep	
890-1754-18	FS34	Total/NA	Solid	8015NM Prep	
MB 880-15722/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15722/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15722/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1750-A-81-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1750-A-81-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 15825**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Total/NA	Solid	8015B NM	15722
890-1754-2	FS18	Total/NA	Solid	8015B NM	15722
890-1754-3	FS19	Total/NA	Solid	8015B NM	15722
890-1754-4	FS20	Total/NA	Solid	8015B NM	15722
890-1754-5	FS21	Total/NA	Solid	8015B NM	15722
890-1754-6	FS22	Total/NA	Solid	8015B NM	15722
890-1754-7	FS23	Total/NA	Solid	8015B NM	15722
890-1754-8	FS24	Total/NA	Solid	8015B NM	15722
890-1754-9	FS25	Total/NA	Solid	8015B NM	15722
890-1754-10	FS26	Total/NA	Solid	8015B NM	15722
890-1754-11	FS27	Total/NA	Solid	8015B NM	15722
890-1754-12	FS28	Total/NA	Solid	8015B NM	15722
890-1754-13	FS29	Total/NA	Solid	8015B NM	15722
890-1754-14	FS30	Total/NA	Solid	8015B NM	15722

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**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**GC Semi VOA (Continued)****Analysis Batch: 15825 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-15	FS31	Total/NA	Solid	8015B NM	15722
890-1754-16	FS32	Total/NA	Solid	8015B NM	15722
890-1754-17	FS33	Total/NA	Solid	8015B NM	15722
890-1754-18	FS34	Total/NA	Solid	8015B NM	15722
MB 880-15722/1-A	Method Blank	Total/NA	Solid	8015B NM	15722
LCS 880-15722/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15722
LCSD 880-15722/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15722
890-1750-A-81-F MS	Matrix Spike	Total/NA	Solid	8015B NM	15722
890-1750-A-81-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15722

**Analysis Batch: 15912**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Total/NA	Solid	8015 NM	10
890-1754-2	FS18	Total/NA	Solid	8015 NM	11
890-1754-3	FS19	Total/NA	Solid	8015 NM	12
890-1754-4	FS20	Total/NA	Solid	8015 NM	13
890-1754-5	FS21	Total/NA	Solid	8015 NM	14
890-1754-6	FS22	Total/NA	Solid	8015 NM	
890-1754-7	FS23	Total/NA	Solid	8015 NM	
890-1754-8	FS24	Total/NA	Solid	8015 NM	
890-1754-9	FS25	Total/NA	Solid	8015 NM	
890-1754-10	FS26	Total/NA	Solid	8015 NM	
890-1754-11	FS27	Total/NA	Solid	8015 NM	
890-1754-12	FS28	Total/NA	Solid	8015 NM	
890-1754-13	FS29	Total/NA	Solid	8015 NM	
890-1754-14	FS30	Total/NA	Solid	8015 NM	
890-1754-15	FS31	Total/NA	Solid	8015 NM	
890-1754-16	FS32	Total/NA	Solid	8015 NM	
890-1754-17	FS33	Total/NA	Solid	8015 NM	
890-1754-18	FS34	Total/NA	Solid	8015 NM	

**HPLC/IC****Leach Batch: 15694**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Soluble	Solid	DI Leach	
890-1754-2	FS18	Soluble	Solid	DI Leach	
890-1754-3	FS19	Soluble	Solid	DI Leach	
890-1754-4	FS20	Soluble	Solid	DI Leach	
890-1754-5	FS21	Soluble	Solid	DI Leach	
890-1754-6	FS22	Soluble	Solid	DI Leach	
890-1754-7	FS23	Soluble	Solid	DI Leach	
890-1754-8	FS24	Soluble	Solid	DI Leach	
890-1754-9	FS25	Soluble	Solid	DI Leach	
890-1754-10	FS26	Soluble	Solid	DI Leach	
890-1754-11	FS27	Soluble	Solid	DI Leach	
890-1754-12	FS28	Soluble	Solid	DI Leach	
890-1754-13	FS29	Soluble	Solid	DI Leach	
890-1754-14	FS30	Soluble	Solid	DI Leach	
MB 880-15694/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15694/2-A	Lab Control Sample	Soluble	Solid	DI Leach	

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**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**HPLC/IC (Continued)****Leach Batch: 15694 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-15694/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1754-5 MS	FS21	Soluble	Solid	DI Leach	
890-1754-5 MSD	FS21	Soluble	Solid	DI Leach	

**Leach Batch: 15703**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-15	FS31	Soluble	Solid	DI Leach	
890-1754-16	FS32	Soluble	Solid	DI Leach	
890-1754-17	FS33	Soluble	Solid	DI Leach	
890-1754-18	FS34	Soluble	Solid	DI Leach	
MB 880-15703/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15703/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15703/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9699-A-9-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-9699-A-9-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

**Analysis Batch: 15818**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-1	FS17	Soluble	Solid	300.0	15694
890-1754-2	FS18	Soluble	Solid	300.0	15694
890-1754-3	FS19	Soluble	Solid	300.0	15694
890-1754-4	FS20	Soluble	Solid	300.0	15694
890-1754-5	FS21	Soluble	Solid	300.0	15694
890-1754-6	FS22	Soluble	Solid	300.0	15694
890-1754-7	FS23	Soluble	Solid	300.0	15694
890-1754-8	FS24	Soluble	Solid	300.0	15694
890-1754-9	FS25	Soluble	Solid	300.0	15694
890-1754-10	FS26	Soluble	Solid	300.0	15694
890-1754-11	FS27	Soluble	Solid	300.0	15694
890-1754-12	FS28	Soluble	Solid	300.0	15694
890-1754-13	FS29	Soluble	Solid	300.0	15694
890-1754-14	FS30	Soluble	Solid	300.0	15694
MB 880-15694/1-A	Method Blank	Soluble	Solid	300.0	15694
LCS 880-15694/2-A	Lab Control Sample	Soluble	Solid	300.0	15694
LCSD 880-15694/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15694
890-1754-5 MS	FS21	Soluble	Solid	300.0	15694
890-1754-5 MSD	FS21	Soluble	Solid	300.0	15694

**Analysis Batch: 15914**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1754-15	FS31	Soluble	Solid	300.0	15703
890-1754-16	FS32	Soluble	Solid	300.0	15703
890-1754-17	FS33	Soluble	Solid	300.0	15703
890-1754-18	FS34	Soluble	Solid	300.0	15703
MB 880-15703/1-A	Method Blank	Soluble	Solid	300.0	15703
LCS 880-15703/2-A	Lab Control Sample	Soluble	Solid	300.0	15703
LCSD 880-15703/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15703
880-9699-A-9-C MS	Matrix Spike	Soluble	Solid	300.0	15703
880-9699-A-9-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15703

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**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS17**

Date Collected: 12/21/21 13:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-1**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15651	12/28/21 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15623	12/29/21 06:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 13:47	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		10	15818	12/31/21 02:15	CH	XEN MID

**Client Sample ID: FS18**

Date Collected: 12/21/21 13:20  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-2**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15651	12/28/21 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15623	12/29/21 07:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 14:08	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		10	15818	12/31/21 02:27	CH	XEN MID

**Client Sample ID: FS19**

Date Collected: 12/21/21 13:35  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-3**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15651	12/28/21 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15623	12/29/21 07:33	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 14:28	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		10	15818	12/31/21 02:39	CH	XEN MID

**Client Sample ID: FS20**

Date Collected: 12/21/21 14:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-4**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15651	12/28/21 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15623	12/29/21 07:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID

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**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS20**

Date Collected: 12/21/21 14:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-4**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 14:49	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		10	15818	12/31/21 02:50	CH	XEN MID

**Client Sample ID: FS21**

Date Collected: 12/21/21 14:35  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-5**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15651	12/28/21 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15623	12/29/21 08:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 15:10	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		10	15818	12/31/21 03:02	CH	XEN MID

**Client Sample ID: FS22**

Date Collected: 12/21/21 14:40  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-6**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15651	12/28/21 13:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15623	12/29/21 08:34	MR	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 15:31	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		5	15818	12/31/21 03:38	CH	XEN MID

**Client Sample ID: FS23**

Date Collected: 12/21/21 14:55  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-7**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 17:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 15:52	AJ	XEN MID

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**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS23**

Date Collected: 12/21/21 14:55  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-7**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		5	15818	12/31/21 03:50	CH	XEN MID

**Client Sample ID: FS24**

Date Collected: 12/21/21 15:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-8**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 17:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 16:12	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		1	15818	12/31/21 04:25	CH	XEN MID

**Client Sample ID: FS25**

Date Collected: 12/21/21 15:05  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-9**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 19:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 16:54	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		5	15818	12/31/21 04:37	CH	XEN MID

**Client Sample ID: FS26**

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-10**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 20:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 12:57	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 17:14	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		5	15818	12/31/21 04:49	CH	XEN MID

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**Lab Chronicle**

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS27**

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-11**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 20:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 17:35	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		5	15818	12/31/21 05:01	CH	XEN MID

**Client Sample ID: FS28**

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-12**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 21:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 17:56	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		10	15818	12/31/21 05:13	CH	XEN MID

**Client Sample ID: FS29**

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-13**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 21:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 18:17	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		5	15818	12/31/21 05:24	CH	XEN MID

**Client Sample ID: FS30**

Date Collected: 12/21/21 00:00  
Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-14**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 21:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
 Project/Site: Nash Unit 39

Job ID: 890-1754-1

SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS30**

Date Collected: 12/21/21 00:00  
 Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-14**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 18:37	AJ	XEN MID
Soluble	Leach	DI Leach			15694	12/29/21 08:26	CH	XEN MID
Soluble	Analysis	300.0		5	15818	12/31/21 05:36	CH	XEN MID

**Client Sample ID: FS31**

Date Collected: 12/21/21 00:00  
 Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-15**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 22:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 18:58	AJ	XEN MID
Soluble	Analysis	300.0		5	15914	01/03/22 11:10	CH	XEN MID
Soluble	Leach	DI Leach			15703	12/29/21 08:41	CH	XEN MID

**Client Sample ID: FS32**

Date Collected: 12/21/21 00:00  
 Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-16**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 22:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 19:19	AJ	XEN MID
Soluble	Leach	DI Leach			15703	12/29/21 08:41	CH	XEN MID
Soluble	Analysis	300.0		5	15914	01/03/22 11:33	CH	XEN MID

**Client Sample ID: FS33**

Date Collected: 12/21/21 00:00  
 Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-17**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 23:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 19:40	AJ	XEN MID

Eurofins Xenco, Carlsbad

**Lab Chronicle**

Client: WSP USA Inc.  
 Project/Site: Nash Unit 39

Job ID: 890-1754-1  
 SDG: 31403236.020.0129 task 05.02

**Client Sample ID: FS33**

Date Collected: 12/21/21 00:00  
 Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-17**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			15703	12/29/21 08:41	CH	XEN MID
Soluble	Analysis	300.0		5	15914	01/03/22 11:41	CH	XEN MID

**Client Sample ID: FS34**

Date Collected: 12/21/21 00:00  
 Date Received: 12/23/21 13:00

**Lab Sample ID: 890-1754-18**

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			15709	01/03/22 09:02	MR	XEN MID
Total/NA	Analysis	8021B		1	15877	01/03/22 23:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15908	01/03/22 13:25	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15912	01/03/22 13:55	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15722	12/29/21 10:17	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15825	12/31/21 20:00	AJ	XEN MID
Soluble	Leach	DI Leach			15703	12/29/21 08:41	CH	XEN MID
Soluble	Analysis	300.0		5	15914	01/03/22 11:49	CH	XEN MID

**Laboratory References:**

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

Eurofins Xenco, Carlsbad

## Accreditation/Certification Summary

Client: WSP USA Inc.

Job ID: 890-1754-1

Project/Site: Nash Unit 39

SDG: 31403236.020.0129 task 05.02

### **Laboratory: Eurofins Xenco, Midland**

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

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

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

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

## Method Summary

Client: WSP USA Inc.  
Project/Site: Nash Unit 39

Job ID: 890-1754-1  
SDG: 31403236.020.0129 task 05.02

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

**Sample Summary**

Client: WSP USA Inc.  
 Project/Site: Nash Unit 39

Job ID: 890-1754-1

SDG: 31403236.020.0129 task 05.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
890-1754-1	FS17	Solid	12/21/21 13:00	12/23/21 13:00	0.5	1
890-1754-2	FS18	Solid	12/21/21 13:20	12/23/21 13:00	0.5	2
890-1754-3	FS19	Solid	12/21/21 13:35	12/23/21 13:00	0.5	3
890-1754-4	FS20	Solid	12/21/21 14:00	12/23/21 13:00	0.5	4
890-1754-5	FS21	Solid	12/21/21 14:35	12/23/21 13:00	0.5	5
890-1754-6	FS22	Solid	12/21/21 14:40	12/23/21 13:00	0.5	6
890-1754-7	FS23	Solid	12/21/21 14:55	12/23/21 13:00	0.5	7
890-1754-8	FS24	Solid	12/21/21 15:00	12/23/21 13:00	0.5	8
890-1754-9	FS25	Solid	12/21/21 15:05	12/23/21 13:00	0.5	9
890-1754-10	FS26	Solid	12/21/21 00:00	12/23/21 13:00	0.5	10
890-1754-11	FS27	Solid	12/21/21 00:00	12/23/21 13:00	0.5	11
890-1754-12	FS28	Solid	12/21/21 00:00	12/23/21 13:00	0.5	12
890-1754-13	FS29	Solid	12/21/21 00:00	12/23/21 13:00	0.5	13
890-1754-14	FS30	Solid	12/21/21 00:00	12/23/21 13:00	0.5	14
890-1754-15	FS31	Solid	12/21/21 00:00	12/23/21 13:00	0.5	
890-1754-16	FS32	Solid	12/21/21 00:00	12/23/21 13:00	0.5	
890-1754-17	FS33	Solid	12/21/21 00:00	12/23/21 13:00	0.5	
890-1754-18	FS34	Solid	12/21/21 00:00	12/23/21 13:00	0.5	



## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1754-1

SDG Number: 31403236.020.0129 task 05.02

**Login Number: 1754****List Source: Eurofins Xenco, Carlsbad****List Number: 1****Creator: Clifton, Cloe**

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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: 890-1754-1

SDG Number: 31403236.020.0129 task 05.02

**Login Number:** 1754**List Source:** Eurofins Xenco, Midland**List Number:** 2**List Creation:** 12/28/21 10:39 AM**Creator:** Rodriguez, Leticia

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



Environment Testing  
America



## ANALYTICAL REPORT

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

Laboratory Job ID: 890-2032-1

Laboratory Sample Delivery Group: 31403236.020.0129

Client Project/Site: Nash 39

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

Attn: Tacoma Morrissey

Authorized for release by:  
3/8/2022 12:28:25 PM

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

### LINKS

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

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

Client: WSP USA Inc.  
Project/Site: Nash 39

Laboratory Job ID: 890-2032-1  
SDG: 31403236.020.0129

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Nash 39

Job ID: 890-2032-1  
SDG: 31403236.020.0129

### Qualifiers

#### GC VOA

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

#### GC Semi VOA

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

#### HPLC/IC

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

### Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

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

**Case Narrative**

Client: WSP USA Inc.

Job ID: 890-2032-1

Project/Site: Nash 39

SDG: 31403236.020.0129

**Job ID: 890-2032-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative**

890-2032-1

**Receipt**

The sample was received on 3/1/2022 9:19 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°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**

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: Nash 39

Job ID: 890-2032-1

SDG: 31403236.020.0129

**Client Sample ID: FS08A****Lab Sample ID: 890-2032-1**

Date Collected: 02/28/22 10:25

Matrix: Solid

Date Received: 03/01/22 09:19

Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 05:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 05:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 05:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/02/22 16:00	03/03/22 05:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/02/22 16:00	03/03/22 05:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/02/22 16:00	03/03/22 05:37	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>		<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)		115		70 - 130		03/02/22 16:00	03/03/22 05:37	1
1,4-Difluorobenzene (Surr)		101		70 - 130		03/02/22 16:00	03/03/22 05:37	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			03/03/22 09:23	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			03/03/22 12:29	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		03/02/22 08:11	03/03/22 07:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/02/22 08:11	03/03/22 07:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/02/22 08:11	03/03/22 07:42	1
<b>Surrogate</b>								
1-Chlorooctane		100	70 - 130			03/02/22 08:11	03/03/22 07:42	1
o-Terphenyl		103	70 - 130			03/02/22 08:11	03/03/22 07:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	724		4.97	mg/Kg			03/08/22 12:17	1

Eurofins Carlsbad

**Surrogate Summary**

Client: WSP USA Inc.

Job ID: 890-2032-1

Project/Site: Nash 39

SDG: 31403236.020.0129

**Method: 8021B - Volatile Organic Compounds (GC)****Matrix: Solid****Prep Type: Total/NA**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Percent Surrogate Recovery (Acceptance Limits)</b>		
		<b>BFB1 (70-130)</b>	<b>DFBZ1 (70-130)</b>	
880-11892-A-1-B MS	Matrix Spike	108	95	
880-11892-A-1-C MSD	Matrix Spike Duplicate	115	96	
890-2032-1	FS08A	115	101	
LCS 880-20604/1-A	Lab Control Sample	99	102	
LCSD 880-20604/2-A	Lab Control Sample Dup	99	100	
MB 880-20523/5-A	Method Blank	104	96	
MB 880-20604/5-A	Method Blank	97	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**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Percent Surrogate Recovery (Acceptance Limits)</b>		
		<b>1CO1 (70-130)</b>	<b>OTPH1 (70-130)</b>	
890-2030-A-1-F MS	Matrix Spike	94	100	
890-2030-A-1-G MSD	Matrix Spike Duplicate	99	95	
890-2032-1	FS08A	100	103	
LCS 880-20658/2-A	Lab Control Sample	107	106	
LCSD 880-20658/3-A	Lab Control Sample Dup	106	105	
MB 880-20658/1-A	Method Blank	112	117	

**Surrogate Legend**

1CO = 1-Chlorooctane  
OTPH = o-Terphenyl

Eurofins Carlsbad

**QC Sample Results**

Client: WSP USA Inc.

Job ID: 890-2032-1

Project/Site: Nash 39

SDG: 31403236.020.0129

**Method: 8021B - Volatile Organic Compounds (GC)****Lab Sample ID: MB 880-20523/5-A****Matrix: Solid****Analysis Batch: 20656****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 20523**

Analyte	MB		MB		Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier	RL	Limits					
Benzene	<0.00200	U	0.00200		mg/Kg		03/02/22 08:00	03/02/22 10:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		03/02/22 08:00	03/02/22 10:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		03/02/22 08:00	03/02/22 10:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		03/02/22 08:00	03/02/22 10:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		03/02/22 08:00	03/02/22 10:52	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		03/02/22 08:00	03/02/22 10:52	1
Surrogate	MB		MB		Limits	D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	RL	Limits					
4-Bromofluorobenzene (Surr)	104			70 - 130			03/02/22 08:00	03/02/22 10:52	1
1,4-Difluorobenzene (Surr)	96			70 - 130			03/02/22 08:00	03/02/22 10:52	1

**Lab Sample ID: MB 880-20604/5-A****Matrix: Solid****Analysis Batch: 20656****Client Sample ID: Method Blank****Prep Type: Total/NA****Prep Batch: 20604**

Analyte	MB		MB		Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier	RL	Limits					
Benzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/02/22 21:46	1
Toluene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/02/22 21:46	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/02/22 21:46	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/02/22 21:46	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		03/02/22 16:00	03/02/22 21:46	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		03/02/22 16:00	03/02/22 21:46	1
Surrogate	MB		MB		Limits	D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	RL	Limits					
4-Bromofluorobenzene (Surr)	97			70 - 130			03/02/22 16:00	03/02/22 21:46	1
1,4-Difluorobenzene (Surr)	95			70 - 130			03/02/22 16:00	03/02/22 21:46	1

**Lab Sample ID: LCS 880-20604/1-A****Matrix: Solid****Analysis Batch: 20656****Client Sample ID: Lab Control Sample****Prep Type: Total/NA****Prep Batch: 20604**

Analyte	Spike		LCS		Unit	D	%Rec.	Limits	
	Added	Result	Qualifier	Unit					
Benzene	0.100	0.1027		mg/Kg			103	70 - 130	
Toluene	0.100	0.09969		mg/Kg			100	70 - 130	
Ethylbenzene	0.100	0.09759		mg/Kg			98	70 - 130	
m-Xylene & p-Xylene	0.200	0.2010		mg/Kg			101	70 - 130	
o-Xylene	0.100	0.09944		mg/Kg			99	70 - 130	
Surrogate	LCS		LCS		Limits	D	%Rec.		
	%Recovery	Qualifier	RL	Limits					
4-Bromofluorobenzene (Surr)	99			70 - 130					
1,4-Difluorobenzene (Surr)	102			70 - 130					

**Lab Sample ID: LCSD 880-20604/2-A****Matrix: Solid****Analysis Batch: 20656****Client Sample ID: Lab Control Sample Dup****Prep Type: Total/NA****Prep Batch: 20604**

Analyte	Spike		LCSD		Unit	D	%Rec.	Limits	RPD
	Added	Result	Qualifier	Unit					
Benzene	0.100	0.09660		mg/Kg			97	70 - 130	6

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**QC Sample Results**

Client: WSP USA Inc.

Job ID: 890-2032-1

Project/Site: Nash 39

SDG: 31403236.020.0129

**Method: 8021B - Volatile Organic Compounds (GC) (Continued)****Lab Sample ID: LCSD 880-20604/2-A****Client Sample ID: Lab Control Sample Dup****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20656****Prep Batch: 20604**

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit
		Added	Result	Qualifier							
Toluene		0.100	0.09466		mg/Kg		95	70 - 130	5	35	
Ethylbenzene		0.100	0.09326		mg/Kg		93	70 - 130	5	35	
m-Xylene & p-Xylene		0.200	0.1927		mg/Kg		96	70 - 130	4	35	
o-Xylene		0.100	0.09495		mg/Kg		95	70 - 130	5	35	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

**Lab Sample ID: 880-11892-A-1-B MS****Client Sample ID: Matrix Spike****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20656****Prep Batch: 20604**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<0.00198	U F1	0.100	0.03877	F1	mg/Kg		37	70 - 130		
Toluene	0.0322	F1	0.100	0.05454	F1	mg/Kg		22	70 - 130		
Ethylbenzene	0.0357	F1	0.100	0.05385	F1	mg/Kg		18	70 - 130		
m-Xylene & p-Xylene	0.118	F1	0.201	0.1452	F1	mg/Kg		14	70 - 130		
o-Xylene	0.0567	F1	0.100	0.06888	F1	mg/Kg		12	70 - 130		

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

**Lab Sample ID: 880-11892-A-1-C MSD****Client Sample ID: Matrix Spike Duplicate****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20656****Prep Batch: 20604**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier						
Benzene	<0.00198	U F1	0.100	0.04974	F1	mg/Kg		48	70 - 130	25	35
Toluene	0.0322	F1	0.100	0.06440	F1	mg/Kg		32	70 - 130	17	35
Ethylbenzene	0.0357	F1	0.100	0.06345	F1	mg/Kg		28	70 - 130	16	35
m-Xylene & p-Xylene	0.118	F1	0.200	0.1611	F1	mg/Kg		22	70 - 130	10	35
o-Xylene	0.0567	F1	0.100	0.07563	F1	mg/Kg		19	70 - 130	9	35

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)****Lab Sample ID: MB 880-20658/1-A****Client Sample ID: Method Blank****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20655****Prep Batch: 20658**

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		03/02/22 08:11	03/03/22 01:28	1

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash 39

Job ID: 890-2032-1  
SDG: 31403236.020.0129

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Lab Sample ID: MB 880-20658/1-A****Client Sample ID: Method Blank****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20658****Prep Batch: 20658**

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		03/02/22 08:11	03/03/22 01:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		03/02/22 08:11	03/03/22 01:28	1
<b>Surrogate</b>	<b>MB</b>		<b>MB</b>					
	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			03/02/22 08:11	03/03/22 01:28	1
<i>o-Terphenyl</i>	117		70 - 130			03/02/22 08:11	03/03/22 01:28	1

**Lab Sample ID: LCS 880-20658/2-A****Client Sample ID: Lab Control Sample****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20658****Prep Batch: 20658**

Analyte	Spike		Unit	D	%Rec.		Limits
	Added	Result			%Rec		
Gasoline Range Organics (GRO)-C6-C10	1000	930.2	mg/Kg		93	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	852.2	mg/Kg		85	70 - 130	
<b>Surrogate</b>	<b>LCS</b>		<b>LCS</b>				
	%Recovery	Qualifier	Limits				
1-Chlorooctane	107		70 - 130				
<i>o-Terphenyl</i>	106		70 - 130				

**Lab Sample ID: LCSD 880-20658/3-A****Client Sample ID: Lab Control Sample Dup****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20658****Prep Batch: 20658**

Analyte	Spike		Unit	D	%Rec.		RPD
	Added	Result			%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	971.8	mg/Kg		97	70 - 130	4
Diesel Range Organics (Over C10-C28)	1000	874.2	mg/Kg		87	70 - 130	3
<b>Surrogate</b>	<b>LCSD</b>		<b>LCSD</b>				
	%Recovery	Qualifier	Limits				
1-Chlorooctane	106		70 - 130				
<i>o-Terphenyl</i>	105		70 - 130				

**Lab Sample ID: 890-2030-A-1-F MS****Client Sample ID: Matrix Spike****Matrix: Solid****Prep Type: Total/NA****Analysis Batch: 20655****Prep Batch: 20658**

Analyte	Sample		Spike	Unit	D	%Rec.		Limits
	Result	Qualifier				Added	Result	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	mg/Kg		105	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	mg/Kg		94	70 - 130	
<b>Surrogate</b>	<b>MS</b>		<b>MS</b>					
	%Recovery	Qualifier	Limits					
1-Chlorooctane	94		70 - 130					
<i>o-Terphenyl</i>	100		70 - 130					

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**QC Sample Results**

Client: WSP USA Inc.  
Project/Site: Nash 39

Job ID: 890-2032-1  
SDG: 31403236.020.0129

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)****Lab Sample ID: 890-2030-A-1-G MSD****Matrix: Solid****Analysis Batch: 20655****Client Sample ID: Matrix Spike Duplicate****Prep Type: Total/NA****Prep Batch: 20658**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1086		mg/Kg		106	70 - 130	1 20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	910.9		mg/Kg		91	70 - 130	4 20
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits							
1-Chlorooctane	99		70 - 130							
<i>o</i> -Terphenyl	95		70 - 130							

**Method: 300.0 - Anions, Ion Chromatography****Lab Sample ID: MB 880-20806/1-A****Matrix: Solid****Analysis Batch: 20936****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			03/07/22 19:36	1

**Lab Sample ID: LCS 880-20806/2-A****Matrix: Solid****Analysis Batch: 20936****Client Sample ID: Lab Control Sample****Prep Type: Soluble**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits		
Chloride	200	201.4		mg/Kg		101	90 - 110		

**Lab Sample ID: LCSD 880-20806/3-A****Matrix: Solid****Analysis Batch: 20936****Client Sample ID: Lab Control Sample Dup****Prep Type: Soluble**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
Chloride	200	203.3		mg/Kg		102	90 - 110	1	20

**Lab Sample ID: 880-11928-A-8-D MS****Matrix: Solid****Analysis Batch: 20936****Client Sample ID: Matrix Spike****Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec.	Limits
Chloride	104		250	353.8		mg/Kg		100	90 - 110

**Lab Sample ID: 880-11928-A-8-E MSD****Matrix: Solid****Analysis Batch: 20936****Client Sample ID: Matrix Spike Duplicate****Prep Type: Soluble**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	RPD	RPD Limit
Chloride	104		250	364.0		mg/Kg		104	90 - 110	3 20

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**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash 39

Job ID: 890-2032-1  
SDG: 31403236.020.0129

**GC VOA****Prep Batch: 20523**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20523/5-A	Method Blank	Total/NA	Solid	5035	

**Prep Batch: 20604**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Total/NA	Solid	5035	
MB 880-20604/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20604/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20604/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11892-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-11892-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 20656**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Total/NA	Solid	8021B	20604
MB 880-20523/5-A	Method Blank	Total/NA	Solid	8021B	20523
MB 880-20604/5-A	Method Blank	Total/NA	Solid	8021B	20604
LCS 880-20604/1-A	Lab Control Sample	Total/NA	Solid	8021B	20604
LCSD 880-20604/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20604
880-11892-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	20604
880-11892-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20604

**Analysis Batch: 20784**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Total/NA	Solid	Total BTEX	

**GC Semi VOA****Analysis Batch: 20655**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Total/NA	Solid	8015B NM	20658
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015B NM	20658
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	20658
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	20658
890-2030-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	20658
890-2030-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	20658

**Prep Batch: 20658**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Total/NA	Solid	8015NM Prep	
MB 880-20658/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-20658/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-20658/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2030-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2030-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 20813**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Total/NA	Solid	8015 NM	

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**QC Association Summary**

Client: WSP USA Inc.  
Project/Site: Nash 39

Job ID: 890-2032-1

SDG: 31403236.020.0129

**HPLC/IC****Leach Batch: 20806**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Soluble	Solid	DI Leach	
MB 880-20806/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-20806/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-20806/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11928-A-8-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11928-A-8-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

**Analysis Batch: 20936**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2032-1	FS08A	Soluble	Solid	300.0	20806
MB 880-20806/1-A	Method Blank	Soluble	Solid	300.0	20806
LCS 880-20806/2-A	Lab Control Sample	Soluble	Solid	300.0	20806
LCSD 880-20806/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	20806
880-11928-A-8-D MS	Matrix Spike	Soluble	Solid	300.0	20806
880-11928-A-8-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	20806

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**Lab Chronicle**

Client: WSP USA Inc.

Project/Site: Nash 39

Job ID: 890-2032-1

SDG: 31403236.020.0129

**Client Sample ID: FS08A****Lab Sample ID: 890-2032-1**

Date Collected: 02/28/22 10:25

Matrix: Solid

Date Received: 03/01/22 09:19

Prep Type	Batch	Batch	Run	Dilution	Batch	Prepared		Lab
	Type	Method		Factor	Number	or Analyzed	Analyst	
Total/NA	Prep	5035			20604	03/02/22 16:00	KL	XEN MID
Total/NA	Analysis	8021B		1	20656	03/03/22 05:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	20784	03/03/22 09:23	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	20813	03/03/22 12:29	AJ	XEN MID
Total/NA	Prep	8015NM Prep			20658	03/02/22 08:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1	20655	03/03/22 07:42	AJ	XEN MID
Soluble	Leach	DI Leach			20806	03/03/22 12:05	CH	XEN MID
Soluble	Analysis	300.0		1	20936	03/08/22 12:17	CH	XEN MID

**Laboratory References:**

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

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## Accreditation/Certification Summary

Client: WSP USA Inc.

Job ID: 890-2032-1

Project/Site: Nash 39

SDG: 31403236.020.0129

### **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

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**Method Summary**

Client: WSP USA Inc.  
Project/Site: Nash 39

Job ID: 890-2032-1  
SDG: 31403236.020.0129

<b>Method</b>	<b>Method Description</b>	<b>Protocol</b>	<b>Laboratory</b>
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

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**Sample Summary**

Client: WSP USA Inc.  
Project/Site: Nash 39

Job ID: 890-2032-1  
SDG: 31403236.020.0129

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2032-1	FS08A	Solid	02/28/22 10:25	03/01/22 09:19	1.5

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## Chain of Custody

Work Order No:

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
Austin, TX (512) 444-1111 El Paso, TX (915) 533-1111 Corpus Christi, TX (361) 474-1000

Project Manager:		Tacoma Morrissey		Hobbs, NM (575-392-2550) Phoenix AZ (480-355-0900) Atlanta GA (770-449-8800) Tampa FL (813-620-2000)		www.xentco.com	
Company Name:		WSP USA Inc.		Bill to: (if different)		Kyle Littrell	
Address:		3300 North A Street		Company Name:		XTO Energy	
City, State ZIP:		Midland, TX 79705		Address:		3104 E Green Street	
Phone:		432 222 2210		City, State ZIP:		Carlsbad, NM 88220	
<p><b>Work Order Comments</b></p> <p><b>Program:</b> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/></p> <p><b>State of Project:</b></p> <p>Reporting Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> RRP <input type="checkbox"/> Level IV <input type="checkbox"/></p> <p>Deliverables: EDD <input type="checkbox"/> ADA/PT <input type="checkbox"/> Other: _____</p>							

Project Name:		Nash 39		Turn Around		ANALYSIS REQUEST		Work Order Notes	
Project Number:		31403236.020.0129		Routine <input checked="" type="checkbox"/>					
P.O. Number:				Rush: <input type="checkbox"/>					
Sampler's Name:		Alexis Castro		Due Date:					
<b>SAMPLE RECEIPT</b>		Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Wet Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Temperature (°C):		16 <input checked="" type="checkbox"/> U.U		Thermometer ID					
Received Intact:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		1 - <input checked="" type="checkbox"/> 2 - <input type="checkbox"/>					
Cooler Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		Correction Factor: -0.2					
Sample Custody Seals:		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		Total Containers: 2					
Number of Containers									
H (EPA 8015)									
EX (EPA 0=8021)									
Iodide (EPA 300.0)									
890-2032 Chain of Custody									
									
TAT starts the day received by the lab, if received by 4:30pm									
Sample Comments									
INC: NAPP211893484									

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

**Notice:** Signature of this document and reimbursement 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 liability 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)
1	<i>Mr. Mohr</i>	<i>Mohr</i>
2	<i>          </i>	<i>          </i>
3	<i>          </i>	<i>          </i>
4	<i>          </i>	<i>          </i>
5		
6		

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-2032-1  
SDG Number: 31403236.020.0129**Login Number:** 2032**List Source:** Eurofins Carlsbad**List Number:** 1**Creator:** Olivas, Nathaniel

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
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: 890-2032-1  
SDG Number: 31403236.020.0129**Login Number:** 2032**List Source:** Eurofins Midland  
**List Creation:** 03/02/22 11:22 AM**List Number:** 2**Creator:** Kramer, Jessica

Question	Answer	Comment	
The cooler's custody seal, if present, is intact.	True		1
Sample custody seals, if present, are intact.	True		2
The cooler or samples do not appear to have been compromised or tampered with.	True		3
Samples were received on ice.	True		4
Cooler Temperature is acceptable.	True		5
Cooler Temperature is recorded.	True		6
COC is present.	True		7
COC is filled out in ink and legible.	True		8
COC is filled out with all pertinent information.	True		9
Is the Field Sampler's name present on COC?	True		10
There are no discrepancies between the containers received and the COC.	True		11
Samples are received within Holding Time (excluding tests with immediate HTs)	True		12
Sample containers have legible labels.	True		13
Containers are not broken or leaking.	True		14
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A		

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
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**District II**  
811 S. First St., Artesia, NM 88210  
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**District III**  
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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 92515

**CONDITIONS**

Operator:  XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID:  5380
	Action Number:  92515
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	4/28/2022