



WSP USA

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

March 25, 2022

District I  
New Mexico Oil Conservation Division  
1625 N. French Drive  
Hobbs, New Mexico 88240

**RE: Remediation Work Plan  
Nocaster 19 Federal 004H  
Incident Number NAPP2124350596  
Lea County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of COG Operating, LLC (COG), presents the following Remediation Work Plan (Work Plan) detailing site assessment activities completed to date and proposing additional remediation activities to address the impacted soil resulting from a release at the at the Nocaster 19 Federal 004H (Site) in Unit P, Section 19, Township 23 South, Range 34 East, in Lea County, New Mexico (Figure 1).

## **RELEASE BACKGROUND**

On August 18, 2021, an oil dump diaphragm on a production knock out ruptured, causing the oil dump valve to malfunction. The malfunction resulted in a flare fire and the release of 0.9 barrels (bbls) of crude oil and 0.9 bbls of produced water. The release impacted the well pad and the adjacent pasture. No released fluids were recovered. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on August 25, 2021, and subsequently submitted a Release Notification Form C-141 (Form C-141) on August 31, 2021. The release was assigned Incident Number NAPP2124350596.

Remediation efforts were postponed pending issuance of a Right of Entry (ROE) Permit requesting access from the New Mexico State Land Office (SLO). The ROE permit was submitted on September 9, 2021, and the executed permit was received from the SLO on November 2, 2021.

## **SITE CHARACTERIZATION**

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321734103290001, located approximately 1.4 miles northeast of the Site. The groundwater well



has a reported depth to groundwater of 345 feet bgs and a total depth of 400 feet bgs. Well records used for depth to groundwater determination are included in Attachment 1.

The closest continuously flowing water or significant watercourse to the Site is an emergent palustrine wetland, located approximately 2,340 feet southeast of the Site. The Site is greater than 200 feet of a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

### **CLOSURE CRITERIA**

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

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

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

### **SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS**

Following the receipt of the approved ROE Permit, WSP personnel visited the Site on November 5, 2021, to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected four preliminary soil samples (SS01 through SS04) within the release extent from a depth of approximately 0.5 feet bgs to assess the extent of impacted soil. Soil from the preliminary soil samples was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site assessment and a photographic log is included in Attachment 2.



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

Laboratory analytical results for preliminary soil samples SS01 through SS04 indicated that TPH-GRO/TPH-DRO, TPH, and chloride concentrations exceeded the Site Closure Criteria and/or the reclamation standards. Based on visible observations and laboratory analytical results for the preliminary samples, additional remediation activities were warranted.

### **DELINEATION SOIL SAMPLING AND ANALYTICAL RESULTS**

On February 15, 2022, WSP personnel returned to the Site to complete delineation activities. Eight boreholes (BH01 through BH08) were advanced via hand auger within and around the release extent to delineate the lateral and vertical extent of impacted soil. Boreholes BH01 through BH04 were advanced within the release extent at the SS01 through SS04 preliminary soil sample locations. The boreholes were advanced to a maximum depth of 5 feet bgs. Delineation soil samples were collected from the boreholes at depths ranging from 1-foot bgs to 5 feet bgs. The delineation soil samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Attachment 3. The delineation borehole soil samples were collected, handled, and analyzed as described above and submitted to Eurofins in Carlsbad, New Mexico. The release extent and delineation soil sample locations are depicted on Figure 2.

Laboratory analytical results for the delineation samples collected from boreholes BH05 through BH08, advanced around the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the reclamation standards for samples collected in the top four feet of pasture areas. Based on the laboratory analytical results, the lateral extent of the release was successfully defined.

Laboratory analytical results for the delineation samples collected from borehole BH02, advanced within pasture the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the reclamation standards. Laboratory analytical results for the delineation samples collected from boreholes BH01, BH03, and BH04, advanced within the pasture release extent, indicated that TPH and/or chloride concentrations exceeded the reclamation standard at depths ranging from 1-foot to 3 feet bgs. The terminal depth sample collected at 5 feet bgs from boreholes BH01 through BH04 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure



Criteria and successfully defined the vertical extent of the release. The analytical results are summarized on Table 1 and laboratory analytical reports are included in Attachment 4.

## **PROPOSED REMEDIATION WORK PLAN**

An estimated 200 cubic yards of impacted soil is present within the subsurface at the Site. WSP and COG propose to excavate the impacted soil in the release area to depths ranging from 1-foot to 3 feet bgs. Excavation activities will proceed until the final excavation samples confirm compliance with the Site Closure Criteria and with the reclamation standards for samples collected in the top four feet of pasture areas. The impacted soil will be disposed of at a licensed disposal facility.

Following removal of impacted soil, 5-point composite confirmation samples will be collected from the sidewalls and floors of the excavation. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The composite samples will represent a maximum 200 square foot sampling area. The excavation soil samples will be handled following the same procedures as described above and analyzed at Eurofins in Carlsbad, New Mexico. Once COG has confirmed all impacted soil has been successfully removed, the excavation will be backfilled with material purchased locally and recontoured to match pre-existing site conditions. The disturbed pasture areas will be re-seeded with an approved BLM seed mixture.

Additionally, in order to determine depth to groundwater at the Site and confirm the applied Closure Criteria, WSP and COG propose to complete a depth to water boring within 0.5 miles of the release. WSP will oversee the installation of a soil boring utilizing a truck-mounted hollow-stem auger rig. The soil boring will be advanced to a depth of approximately 110 feet bgs or until groundwater is encountered. A WSP geologist will log and describe soils continuously and will document observations on a lithologic/ soil sampling log. The borehole will be left open for over 72 hours to allow for the potential slow infill of groundwater. Following the 72-hour waiting period depth to groundwater will be measured or the WSP geologist will confirm the boring is dry. The borehole will be properly abandoned following New Mexico Office of the State Engineer (NMOSE) procedures. WSP and COG will include documentation of the soil boring installation and the lithologic/soil sampling log in a subsequent closure request.

COG anticipates beginning remediation within 90 days of receipt of the approved remediation work plan. A final report requesting closure will be submitted within 30 days of receipt of final laboratory analytical results. The Form C-141 requesting approval of this work plan is included in Attachment 5.

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



District I  
Page 5

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads "Morrissey".

Tacoma Morrissey  
Consultant, Geologist

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

Aimee Cole  
Sr. Consultant, Environmental Scientist

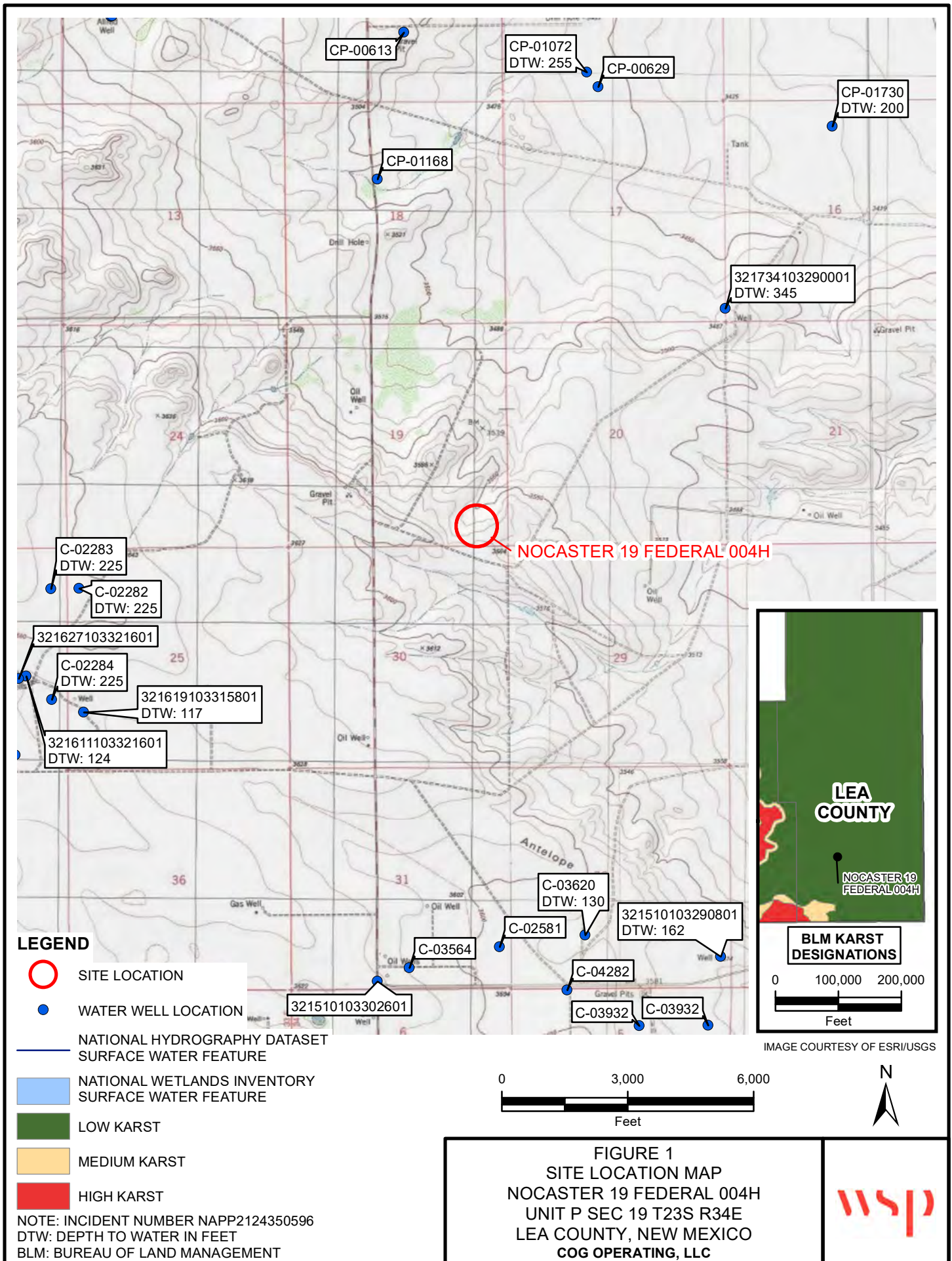
cc: Charles Beauvais, COG Operating, LLC  
New Mexico State Land Office

Attachments:

Figure 1 Site Location Map  
Figure 2 Soil Sample Locations  
Table 1 Soil Analytical Results  
Attachment 1 Referenced Well Records  
Attachment 2 Photographic Log  
Attachment 3 Lithologic / Soil Sampling Logs  
Attachment 4 Laboratory Analytical Reports  
Attachment 5 Form C-141

FIGURES



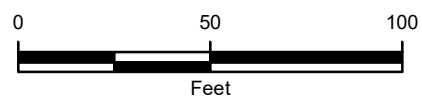


**LEGEND**

- SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- RELEASE EXTENT
- PAD BOUNDARY

NOTE: INCIDENT NUMBER NAPP2124350596  
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

IMAGE COURTESY OF ESRI



**FIGURE 2**  
**SOIL SAMPLE LOCATIONS**  
**NOCASSTER 19 FEDERAL 004H**  
**UNIT P SEC 19 T23S R34E**  
**LEA COUNTY, NEW MEXICO**  
**COG OPERATING, LLC**





TABLES

Table 1

**Soil Analytical Results**  
**Nocaster 19 Federal 004H**  
**Incident Number NAPP2124350596**  
**COG Operating, LLC**  
**Lea 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>1,000</b>	<b>2,500</b>	<b>20,000</b>
<b>Preliminary Soil Samples</b>										
SS01	11/05/2021	0.5	<0.00200	<0.00399	4,290	<49.8	<49.8	<b>4,290</b>	<b>4,290</b>	166*
SS02	11/05/2021	0.5	<0.00202	<0.00403	151	<49.9	<49.9	151	151	1,330*
SS03	11/05/2021	0.5	<0.00199	<0.00398	65.3	<50.0	<50.0	65.3	65.3	7,310*
SS04	11/05/2021	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	11,900*
<b>Delineation Borehole Samples</b>										
BH01	02/15/2022	1	<0.00198	<0.00397	113	<50.0	<50.0	113	113	960*
BH01A	02/15/2022	3	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	1,430*
BH01B	02/15/2022	5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	761
BH02	02/15/2022	1	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	30.5*
BH02A	02/15/2022	3	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	20.1*
BH02B	02/15/2022	5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	27.4
BH03	02/15/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	689*
BH03A	02/15/2022	3	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	234*
BH03B	02/15/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	57.0
BH04	02/15/2022	1	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	644*
BH04A	02/15/2022	3	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	150*
BH04B	02/15/2022	5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	12.9
BH05	02/15/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	531*
BH05A	02/15/2022	3	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	41.1*
BH05B	02/15/2022	5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	30.9

Table 1

Soil Analytical Results  
 Nocaster 19 Federal 004H  
 Incident Number NAPP2124350596  
 COG Operating, LLC  
 Lea 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>1,000</b>	<b>2,500</b>	<b>20,000</b>
BH06	02/15/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	700
BH06A	02/15/2022	3	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	833
BH06B	02/15/2022	5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	495
BH07	02/15/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	392*
BH07A	02/15/2022	3	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	56.1*
BH07B	02/15/2022	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	26.1
BH08	02/15/2022	1	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	44.0
BH08A	02/15/2022	2	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	12.1

**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

Text - impacted soil was excavated

ORO - motor 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

\* - indicates soil sample is located in the pasture in the top four feet and the reclamation standard will be applied

ATTACHMENT 1: REFERENCED WELL RECORDS

**DESCRIPTION:**

Latitude 32°17'53", Longitude 103°28'59" NAD27  
 Lea County, New Mexico, Hydrologic Unit 13070007  
 Well depth: 400 feet  
 Land surface altitude: 3,478.00 feet above NGVD29.  
 Well completed in "Other aquifers" (N9999OTHER) national aquifer.  
 Well completed in "Chinle Formation" (231CHNL) local aquifer

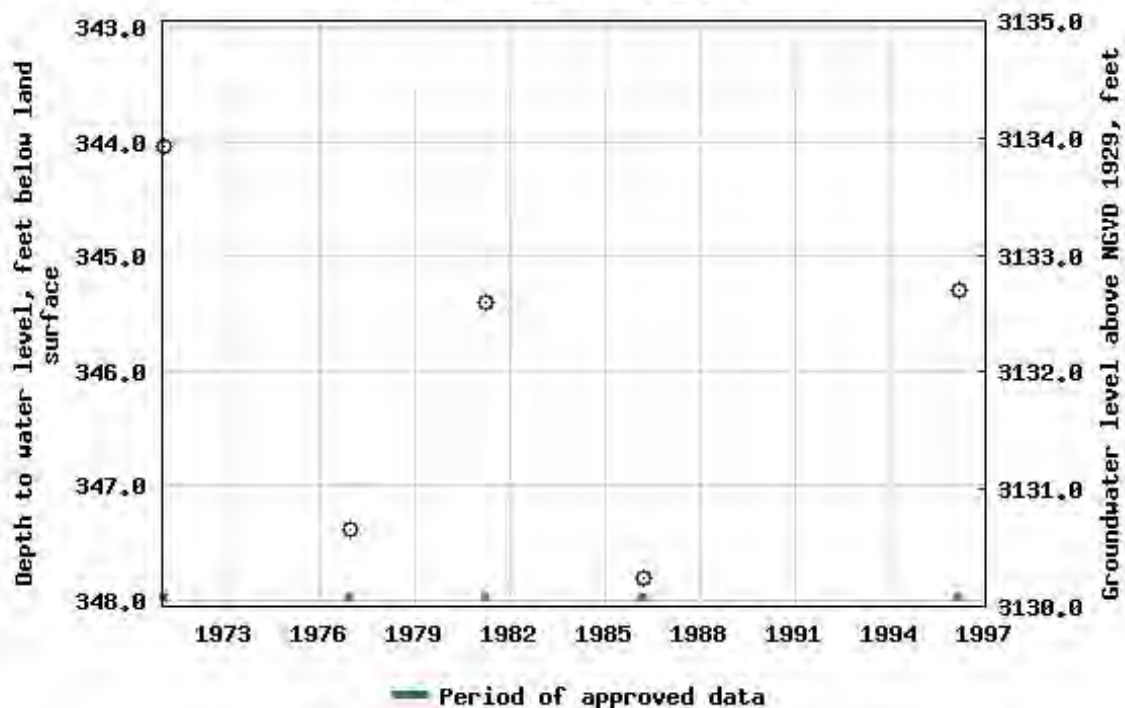
**AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
<a href="#">Field groundwater-level measurements</a>	1971-01-13	1996-03-08	5
<a href="#">Revisions</a>	Unavailable (site:0) (timeseries:0)		

**OPERATION:**

Record for this site is maintained by the USGS New Mexico Water Science Center  
 Email questions about this site to [New Mexico Water Science Center Water-Data Inquiries](#)

USGS 321734103290001 23S.34E.16.333312







# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
C	02282	3	1	1	25	23S	33E	638098	3572436*

**Driller License:****Driller Company:****Driller Name:** CARL BRININSTOOL**Drill Start Date:****Drill Finish Date:**

12/31/1922

**Plug Date:****Log File Date:****PCW Rev Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:** 3 GPM**Casing Size:** 6.50**Depth Well:**

325 feet

**Depth Water:** 225 feet

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

9/2/21 8:32 AM


POINT OF DIVERSION SUMMARY

ATTACHMENT 2: PHOTOGRAPHIC LOG

**PHOTOGRAPHIC LOG**

<b>COG Operating, LLC</b>	<b>Nocaster 19 Federal 004H</b> <b>Lea County, New Mexico</b>	<b>NAPP2124350596</b>
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<b>Photo No.</b>	<b>Date</b>	
1	November 5, 2022	
Photo of release extent taken during initial site assessment.		 A photograph showing a gravelly, sandy area with several large, dark, cylindrical objects (possibly pipes or drums) lying on the ground. A metal structure, possibly a wellhead or valve, is visible in the background. The terrain is arid and hilly.

<b>Photo No.</b>	<b>Date</b>	
2	November 5, 2022	
Photo of release extent taken during initial site assessment.		 A photograph showing a wide, arid landscape with sparse, dry vegetation. A long, straight, light-colored object (possibly a pipe or road) runs across the middle ground. The terrain is hilly and rocky, with a clear blue sky in the background.



PHOTOGRAPHIC LOG		
COG Operating, LLC	Nocaster 19 Federal 004H Lea County, New Mexico	NAPP2124350596





Photo No.	Date	
3	February 15, 2022	
Photo of borehole completed during delineation activities.		 A photograph showing a borehole in a desert landscape. The borehole is a vertical hole in the ground, with a metal rod or pipe inserted into it. The surrounding terrain is dry, rocky, and covered with sparse, low-lying vegetation. The sky is clear and blue.


Photo No.	Date	
4	February 15, 2022	
Photo of borehole completed during delineation activities.		 A photograph showing a borehole in a desert landscape. The borehole is a vertical hole in the ground, with a metal rod or pipe inserted into it. The surrounding terrain is dry, rocky, and covered with sparse, low-lying vegetation. In the background, there is a metal structure, possibly a drilling rig or a wellhead, and a clear blue sky.


ATTACHMENT 3: LITHOLOGIC/SOIL SAMPLING LOGS




 <div>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</div>		BH or PH Name: <b>BH01</b>		Date: <b>02/15/2022</b>				
		Site Name: <b>NoCaster 19 Fed #4H</b>						
		RP or Incident Number: <b>NAPP2124350596</b>						
		WSP Job Number: <b>31403720.000</b>						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Lat/Long: <b>32.284265, -103.502147</b>		Field Screening: Chloride, PID		Logged By: PB Hole Diameter: 3" Method: Hand Auger Total Depth: 5'				
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	823.2	1.3	N	BH01	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain, no odor.
D	2,312.8	1.2	N			2	SP-SC	SAA
D	1,646.4	1.6	N	BH01A	3	3	SP-SC	SAA, abundant silt
D	1,232	1.2	N			4	SP-SC	SAA
D	823.2	1.3	N	BH01B	5	5	SP-SC	SAA
TD @ 5 ft bgs								


 <div style="display: inline-block; vertical-align: middle; text-align: left;"> WSP USA  508 West Stevens Street  Carlsbad, New Mexico 88220 </div>				BH or PH Name: <b>BH02</b>		Date: <b>02/15/2022</b>			
				Site Name: <b>NoCaster 19 Fed #4H</b>					
				RP or Incident Number: <b>NAPP2124350596</b>					
				WSP Job Number: <b>31403720.000</b>					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: PB		Method: Hand Auger	
Lat/Long: <b>32.284085, -103.50286</b>				Field Screening: Chloride, PID		Hole Diameter: 3"		Total Depth: 5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
D	296.8	0.9	N	BH02	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain, no odor.	
D	<179.2	1.3	N			2	SP-SC	SAA	
D	<179.2	1.1	N	BH02A	3	3	SP-SC	SAA	
D	<179.2	1.2	N			4	SP-SC	SAA	
D	<179.2	1.0	N	BH02B	5	5	SP-SC	SAA	
TD @ 5 ft bgs									


 <div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>								BH or PH Name: <b>BH03</b>		Date: <b>02/15/2022</b>	
								Site Name: <b>NoCaster 19 Fed #4H</b>			
								RP or Incident Number: <b>NAPP2124350596</b>			
								WSP Job Number: <b>31403720.000</b>			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								Logged By: PB		Method: Hand Auger	
Lat/Long: <b>32.284279, -103.502467</b>				Field Screening: Chloride, PID				Hole Diameter: 3"		Total Depth: 5'	
Comments:											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
D	1,142.4	0.3	N	BH03	1	1	SP-SC	SAND, dark brown, dry, abundant clay, some silt, fine grain, well sorted, poorly graded, trace plant roots, no stain, no odor.			
D	392	0.6	N			2	SP-SC	SAA, no plant roots			
D	252	1.2	N	BH03A	3	3	SP-SC	SAA			
D	<179.2	0.6	N			4	SP-SC	SAA			
D	<179.2	0.7	N	BH03B	5	5	SP-SC	SAA			
TD @ 5 ft bgs											


 <div>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</div>				BH or PH Name: <b>BH04</b>		Date: <b>02/15/2022</b>			
				Site Name: <b>NoCaster 19 Fed #4H</b>					
				RP or Incident Number: <b>NAPP2124350596</b>					
				WSP Job Number: <b>31403720.000</b>					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: PB		Method: Hand Auger	
Lat/Long: <b>32.284284, -103.502588</b>			Field Screening: Chloride, PID			Hole Diameter: 3"		Total Depth: 5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
D	1,764	1.2	N	BH04	1	1	SP-SC	SAND, dark reddish brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, trace caliche gravel, no stain, no odor.	
D	832.2	1.3	N			2	SP-SC	SAA, dark brown, no caliche gravel.	
D	<179.2	0.6	N	BH04A	3	3	SP-SC	SAA	
D	<179.2	1.3	N			4	SP-SC	SAA	
D	<179.2	1.3	N	BH04B	5	5	SP-SC	SAA	
TD @ 5 ft bgs									

 <div>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</div>				BH or PH Name: <b>BH05</b>		Date: <b>02/15/2022</b>			
				Site Name: <b>NoCaster 19 Fed #4H</b>					
				RP or Incident Number: <b>NAPP2124350596</b>					
				WSP Job Number: <b>31403720.000</b>					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: PB		Method: Hand Auger	
Lat/Long: <b>32.2843058, -103.5023658</b>			Field Screening: Chloride, PID			Hole Diameter: 3"		Total Depth: 5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
D	560	0.3	N	BH05	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain, no odor.	
D	179.2	0.4	N			2	SP-SC	SAA	
D	<179.2	0.5	N	BH05A	3	3	SP-SC	SAA	
D	<179.2	0.4	N			4	SP-SC	SAA	
D	<179.2	0.7	N	BH05B	5	5	SP-SC	SAA	
TD @ 5 ft bgs									



 <div>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</div>		BH or PH Name: <b>BH06</b>		Date: <b>02/15/2022</b>				
		Site Name: <b>NoCaster 19 Fed #4H</b>						
		RP or Incident Number: <b>NAPP2124350596</b>						
		WSP Job Number: <b>31403720.000</b>						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Lat/Long: <b>32.2842670, -103.5021051</b>		Field Screening: Chloride, PID		Logged By: PB Hole Diameter: 3" Method: Hand Auger Total Depth: 5'				
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	498.4	0.0	N	BH06	1	1	SP-SC	SAND, dark brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, no stain, no odor.
D	896	0.1	N			2	SP-SC	SAA
D	896	0.1	N	BH06A	3	3	SP-SC	SAA, abundant silt.
D	252	0.2	N			4	SP-SC	SAA
D	341.6	0.1	N	BH06B	5	5	SP-SC	SAA
TD @ 5 ft bgs								

 <div style="display: inline-block; vertical-align: middle;"> WSP USA  508 West Stevens Street  Carlsbad, New Mexico 88220 </div>				BH or PH Name: <b>BH07</b>		Date: <b>02/15/2022</b>			
				Site Name: <b>NoCaster 19 Fed #4H</b>					
				RP or Incident Number: <b>NAPP2124350596</b>					
				WSP Job Number: <b>31403720.000</b>					
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: PB		Method: Hand Auger	
Lat/Long: <b>32.284281, -103.502644</b>			Field Screening: Chloride, PID			Hole Diameter: 3"		Total Depth: 5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
D	392.0	0.0	N	BH07	1	1	SP-SC	SAND, dark reddish brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, trace caliche gravel, no stain, no odor.	
D	212.8	0.1	N			2	SP-SC	SAA, dark brown, no caliche gravel.	
D	<179.2	0.1	N	BH07A	3	3	SP-SC	SAA	
D	<179.2	0.6	N			4	SP-SC	SAA	
D	<179.2	0.6	N	BH07B	5	5	SP-SC	SAA	
TD @ 5 ft bgs									

 <div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> <b>WSP USA</b>          508 West Stevens Street          Carlsbad, New Mexico 88220       </div>					BH or PH Name: <b>BH08</b>		Date: <b>02/15/2022</b>		
					Site Name: <b>NoCaster 19 Fed #4H</b>				
					RP or Incident Number: <b>NAPP2124350596</b>				
					WSP Job Number: <b>31403720.000</b>				
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>									
Lat/Long: <b>32.2842476, -103.5023446</b>				Field Screening: Chloride, PID		Hole Diameter: 3"		Total Depth: 2'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
D	<179.2	0.6	N	BH08	1	1	SP-SC	SAND, dark reddish brown, dry, abundant silt and clay, fine grain, well sorted, poorly graded, trace caliche gravel, no stain, no odor.	
D	<179.2	0.6	N	BH08A	2	2	SP-SC	SAND, light brown, dry, abundant silt/clay and caliche, fine grain, well sorted, poorly graded, no stain, no odor.	
TD @ 2 ft bgs									

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1546-1

Laboratory Sample Delivery Group: 31402909.16

Client Project/Site: NoCaster 19 Federal 004h

**For:**

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

Attn: Kalei Jennings

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

Authorized for release by:  
11/15/2021 3:48:00 PM

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?



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: NoCaster 19 Federal 004h

Laboratory Job ID: 890-1546-1  
SDG: 31402909.16

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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



**Case Narrative**

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

---

**Job ID: 890-1546-1**

---

**Laboratory: Eurofins Xenco, Carlsbad****Narrative**

---

**Job Narrative  
890-1546-1****Receipt**

The samples were received on 11/8/2021 4:15 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 sample was outside control limits: (MB 880-11824/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

**GC Semi VOA**

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

**HPLC/IC**

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

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

Client Sample ID: SS01

Lab Sample ID: 890-1546-1

Date Collected: 11/05/21 15:53

Matrix: Solid

Date Received: 11/08/21 16:15

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		11/10/21 09:30	11/10/21 15:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/10/21 09:30	11/10/21 15:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/10/21 09:30	11/10/21 15:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		11/10/21 09:30	11/10/21 15:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/10/21 09:30	11/10/21 15:53	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		11/10/21 09:30	11/10/21 15:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	11/10/21 09:30	11/10/21 15:53	1
1,4-Difluorobenzene (Surr)	90		70 - 130	11/10/21 09:30	11/10/21 15:53	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			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4290		49.8	mg/Kg			11/11/21 15:24	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		11/11/21 08:21	11/11/21 16:48	1
Diesel Range Organics (Over C10-C28)	4290		49.8	mg/Kg		11/11/21 08:21	11/11/21 16:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		11/11/21 08:21	11/11/21 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	11/11/21 08:21	11/11/21 16:48	1
o-Terphenyl	77		70 - 130	11/11/21 08:21	11/11/21 16:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	166		4.95	mg/Kg			11/14/21 01:34	1

Client Sample ID: SS02

Lab Sample ID: 890-1546-2

Date Collected: 11/05/21 15:55

Matrix: Solid

Date Received: 11/08/21 16:15

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		11/10/21 09:30	11/10/21 16:13	1
Toluene	<0.00202	U	0.00202	mg/Kg		11/10/21 09:30	11/10/21 16:13	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		11/10/21 09:30	11/10/21 16:13	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		11/10/21 09:30	11/10/21 16:13	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		11/10/21 09:30	11/10/21 16:13	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		11/10/21 09:30	11/10/21 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	11/10/21 09:30	11/10/21 16:13	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

Client Sample ID: SS02

Lab Sample ID: 890-1546-2

Date Collected: 11/05/21 15:55

Matrix: Solid

Date Received: 11/08/21 16:15

Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	11/10/21 09:30	11/10/21 16:13	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			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	151		49.9	mg/Kg			11/11/21 15:24	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		11/11/21 08:21	11/11/21 17:09	1
Diesel Range Organics (Over C10-C28)	151		49.9	mg/Kg		11/11/21 08:21	11/11/21 17:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		11/11/21 08:21	11/11/21 17:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130			11/11/21 08:21	11/11/21 17:09	1
o-Terphenyl	108		70 - 130			11/11/21 08:21	11/11/21 17:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1330		4.98	mg/Kg			11/14/21 01:39	1

Client Sample ID: SS03

Lab Sample ID: 890-1546-3

Date Collected: 11/05/21 15:57

Matrix: Solid

Date Received: 11/08/21 16:15

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		11/10/21 09:30	11/10/21 18:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		11/10/21 09:30	11/10/21 18:02	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		11/10/21 09:30	11/10/21 18:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	11/10/21 09:30	11/10/21 18:02	1
1,4-Difluorobenzene (Surr)	99		70 - 130	11/10/21 09:30	11/10/21 18:02	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			11/15/21 14:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	65.3		50.0	mg/Kg			11/11/21 15:24	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

## Client Sample ID: SS03

Lab Sample ID: 890-1546-3

Date Collected: 11/05/21 15:57

Matrix: Solid

Date Received: 11/08/21 16:15

Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		11/11/21 08:21	11/11/21 17:30	1
Diesel Range Organics (Over C10-C28)	65.3		50.0	mg/Kg		11/11/21 08:21	11/11/21 17:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/11/21 08:21	11/11/21 17:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130			11/11/21 08:21	11/11/21 17:30	1
o-Terphenyl	104		70 - 130			11/11/21 08:21	11/11/21 17:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7310		49.5	mg/Kg			11/14/21 01:44	10

## Client Sample ID: SS04

Lab Sample ID: 890-1546-4

Date Collected: 11/05/21 15:58

Matrix: Solid

Date Received: 11/08/21 16:15

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		11/10/21 09:30	11/10/21 18:23	1
Toluene	<0.00201	U	0.00201	mg/Kg		11/10/21 09:30	11/10/21 18:23	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		11/10/21 09:30	11/10/21 18:23	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		11/10/21 09:30	11/10/21 18:23	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		11/10/21 09:30	11/10/21 18:23	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		11/10/21 09:30	11/10/21 18:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130			11/10/21 09:30	11/10/21 18:23	1
1,4-Difluorobenzene (Surr)	98		70 - 130			11/10/21 09:30	11/10/21 18:23	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			11/15/21 14:07	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			11/11/21 15:24	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		11/11/21 08:21	11/11/21 17:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/11/21 08:21	11/11/21 17:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/11/21 08:21	11/11/21 17:51	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			11/11/21 08:21	11/11/21 17:51	1
o-Terphenyl	105		70 - 130			11/11/21 08:21	11/11/21 17:51	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

Client Sample ID: SS04  
Date Collected: 11/05/21 15:58  
Date Received: 11/08/21 16:15  
Sample Depth: 0.5

Lab Sample ID: 890-1546-4  
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	11900		101	mg/Kg			11/14/21 01:49	20	

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-8100-A-21-A MS	Matrix Spike	113	102
880-8100-A-21-B MSD	Matrix Spike Duplicate	117	104
890-1546-1	SS01	123	90
890-1546-2	SS02	120	106
890-1546-3	SS03	107	99
890-1546-4	SS04	110	98
LCS 880-11824/1-A	Lab Control Sample	112	102
LCSD 880-11824/2-A	Lab Control Sample Dup	108	101
MB 880-11824/5-A	Method Blank	62 S1-	111
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1546-1	SS01	93	77
890-1546-2	SS02	104	108
890-1546-3	SS03	100	104
890-1546-4	SS04	102	105
890-1555-A-1-D MS	Matrix Spike	100	99
LCS 880-11990/2-A	Lab Control Sample	84	93
LCSD 880-11990/3-A	Lab Control Sample Dup	83	86
MB 880-11990/1-A	Method Blank	106	127
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1	OTPH1
890-1555-A-1-E MSD	Matrix Spike Duplicate		
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

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

Lab Sample ID: MB 880-11824/5-A

Matrix: Solid

Analysis Batch: 11888

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11824

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		11/10/21 09:30	11/10/21 12:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		11/10/21 09:30	11/10/21 12:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		11/10/21 09:30	11/10/21 12:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		11/10/21 09:30	11/10/21 12:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		11/10/21 09:30	11/10/21 12:41	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		11/10/21 09:30	11/10/21 12:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	62	S1-	70 - 130	11/10/21 09:30	11/10/21 12:41	1
1,4-Difluorobenzene (Surr)	111		70 - 130	11/10/21 09:30	11/10/21 12:41	1

Lab Sample ID: LCS 880-11824/1-A

Matrix: Solid

Analysis Batch: 11888

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11824

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09671		mg/Kg		97	70 - 130
Toluene	0.100	0.1024		mg/Kg		102	70 - 130
Ethylbenzene	0.100	0.1078		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2145		mg/Kg		107	70 - 130
o-Xylene	0.100	0.1036		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-11824/2-A

Matrix: Solid

Analysis Batch: 11888

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11824

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09531		mg/Kg		95	70 - 130	1	35
Toluene	0.100	0.1010		mg/Kg		101	70 - 130	1	35
Ethylbenzene	0.100	0.1067		mg/Kg		107	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2085		mg/Kg		104	70 - 130	3	35
o-Xylene	0.100	0.1005		mg/Kg		100	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-8100-A-21-A MS

Matrix: Solid

Analysis Batch: 11888

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0998	0.08923		mg/Kg		89	70 - 130
Toluene	<0.00200	U	0.0998	0.09624		mg/Kg		95	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

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

Lab Sample ID: 880-8100-A-21-A MS

Matrix: Solid

Analysis Batch: 11888

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11824

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.0998	0.1020		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1997		mg/Kg		99	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09858		mg/Kg		98	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-8100-A-21-B MSD

Matrix: Solid

Analysis Batch: 11888

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 11824

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.08626		mg/Kg		86	70 - 130	3	35
Toluene	<0.00200	U	0.100	0.09392		mg/Kg		93	70 - 130	2	35
Ethylbenzene	<0.00200	U	0.100	0.09454		mg/Kg		95	70 - 130	8	35
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1841		mg/Kg		91	70 - 130	8	35
o-Xylene	<0.00200	U	0.100	0.08863		mg/Kg		88	70 - 130	11	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: MB 880-11990/1-A

Matrix: Solid

Analysis Batch: 11992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11990

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		11/11/21 08:21	11/11/21 09:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		11/11/21 08:21	11/11/21 09:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		11/11/21 08:21	11/11/21 09:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	11/11/21 08:21	11/11/21 09:47	1
o-Terphenyl	127		70 - 130	11/11/21 08:21	11/11/21 09:47	1

Lab Sample ID: LCS 880-11990/2-A

Matrix: Solid

Analysis Batch: 11992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11990

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	895.5		mg/Kg		90	70 - 130
Diesel Range Organics (Over C10-C28)	1000	900.5		mg/Kg		90	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

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

Lab Sample ID: LCS 880-11990/2-A

Matrix: Solid

Analysis Batch: 11992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11990

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	84		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-11990/3-A

Matrix: Solid

Analysis Batch: 11992

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11990

			Spike	LCSD	LCSD				%Rec.		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	918.9		mg/Kg		92	70 - 130	3	20	
Diesel Range Organics (Over C10-C28)			1000	870.9		mg/Kg		87	70 - 130	3	20	
	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	83		70 - 130									
o-Terphenyl	86		70 - 130									

Lab Sample ID: 890-1555-A-1-D MS

Matrix: Solid

Analysis Batch: 11992

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11990

	Sample	Sample	Spike	MS	MS				%Rec.			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1100		mg/Kg		108	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.0	U	997	793.8		mg/Kg		77	70 - 130			
	MS	MS										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	100		70 - 130									
o-Terphenyl	99		70 - 130									

Lab Sample ID: 890-1555-A-1-E MSD

Matrix: Solid

Analysis Batch: 11992

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 11990

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1148		mg/Kg						
Diesel Range Organics (Over C10-C28)	<50.0	U	998	849.1		mg/Kg						
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane												
o-Terphenyl												

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12129/1-A

Matrix: Solid

Analysis Batch: 12200

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			11/14/21 01:05	1

Lab Sample ID: LCS 880-12129/2-A

Matrix: Solid

Analysis Batch: 12200

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	247.4		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-12129/3-A

Matrix: Solid

Analysis Batch: 12200

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	249.3		mg/Kg		100	90 - 110	1	20

Lab Sample ID: 880-8171-A-1-G MS

Matrix: Solid

Analysis Batch: 12200

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	85.1		250	321.0		mg/Kg		94	90 - 110

Lab Sample ID: 880-8171-A-1-H MSD

Matrix: Solid

Analysis Batch: 12200

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	85.1		250	318.3		mg/Kg		93	90 - 110	1	20

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

## GC VOA

## Prep Batch: 11824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	5035	
890-1546-2	SS02	Total/NA	Solid	5035	
890-1546-3	SS03	Total/NA	Solid	5035	
890-1546-4	SS04	Total/NA	Solid	5035	
MB 880-11824/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11824/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11824/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-8100-A-21-A MS	Matrix Spike	Total/NA	Solid	5035	
880-8100-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 11888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8021B	11824
890-1546-2	SS02	Total/NA	Solid	8021B	11824
890-1546-3	SS03	Total/NA	Solid	8021B	11824
890-1546-4	SS04	Total/NA	Solid	8021B	11824
MB 880-11824/5-A	Method Blank	Total/NA	Solid	8021B	11824
LCS 880-11824/1-A	Lab Control Sample	Total/NA	Solid	8021B	11824
LCSD 880-11824/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11824
880-8100-A-21-A MS	Matrix Spike	Total/NA	Solid	8021B	11824
880-8100-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11824

## Analysis Batch: 12338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	Total BTEX	
890-1546-2	SS02	Total/NA	Solid	Total BTEX	
890-1546-3	SS03	Total/NA	Solid	Total BTEX	
890-1546-4	SS04	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 11990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8015NM Prep	
890-1546-2	SS02	Total/NA	Solid	8015NM Prep	
890-1546-3	SS03	Total/NA	Solid	8015NM Prep	
890-1546-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-11990/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11990/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11990/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1555-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1555-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 11992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8015B NM	11990
890-1546-2	SS02	Total/NA	Solid	8015B NM	11990
890-1546-3	SS03	Total/NA	Solid	8015B NM	11990
890-1546-4	SS04	Total/NA	Solid	8015B NM	11990
MB 880-11990/1-A	Method Blank	Total/NA	Solid	8015B NM	11990
LCS 880-11990/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11990

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

## GC Semi VOA (Continued)

## Analysis Batch: 11992 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-11990/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11990
890-1555-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	11990
890-1555-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11990

## Analysis Batch: 12045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Total/NA	Solid	8015 NM	
890-1546-2	SS02	Total/NA	Solid	8015 NM	
890-1546-3	SS03	Total/NA	Solid	8015 NM	
890-1546-4	SS04	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 12129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Soluble	Solid	DI Leach	
890-1546-2	SS02	Soluble	Solid	DI Leach	
890-1546-3	SS03	Soluble	Solid	DI Leach	
890-1546-4	SS04	Soluble	Solid	DI Leach	
MB 880-12129/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12129/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12129/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8171-A-1-G MS	Matrix Spike	Soluble	Solid	DI Leach	
880-8171-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

## Analysis Batch: 12200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1546-1	SS01	Soluble	Solid	300.0	12129
890-1546-2	SS02	Soluble	Solid	300.0	12129
890-1546-3	SS03	Soluble	Solid	300.0	12129
890-1546-4	SS04	Soluble	Solid	300.0	12129
MB 880-12129/1-A	Method Blank	Soluble	Solid	300.0	12129
LCS 880-12129/2-A	Lab Control Sample	Soluble	Solid	300.0	12129
LCSD 880-12129/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12129
880-8171-A-1-G MS	Matrix Spike	Soluble	Solid	300.0	12129
880-8171-A-1-H MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12129

Eurofins Xenco, Carlsbad

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

Client Sample ID: SS01

Lab Sample ID: 890-1546-1

Date Collected: 11/05/21 15:53

Matrix: Solid

Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 15:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 16:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			12200	11/14/21 01:34	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1546-2

Date Collected: 11/05/21 15:55

Matrix: Solid

Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 16:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 17:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		1			12200	11/14/21 01:39	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1546-3

Date Collected: 11/05/21 15:57

Matrix: Solid

Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 18:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		10			12200	11/14/21 01:44	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-1546-4

Date Collected: 11/05/21 15:58

Matrix: Solid

Date Received: 11/08/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	11824	11/10/21 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	11888	11/10/21 18:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			12338	11/15/21 14:07	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

Client Sample ID: SS04  
Date Collected: 11/05/21 15:58  
Date Received: 11/08/21 16:15

Lab Sample ID: 890-1546-4  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			12045	11/11/21 15:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11990	11/11/21 08:21	DM	XEN MID
Total/NA	Analysis	8015B NM		1			11992	11/11/21 17:51	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	12129	11/12/21 12:28	CH	XEN MID
Soluble	Analysis	300.0		20			12200	11/14/21 01:49	CH	XEN MID

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



Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

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

## Method Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

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: NoCaster 19 Federal 004h

Job ID: 890-1546-1  
SDG: 31402909.16

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1546-1	SS01	Solid	11/05/21 15:53	11/08/21 16:15	0.5 - .
890-1546-2	SS02	Solid	11/05/21 15:55	11/08/21 16:15	0.5
890-1546-3	SS03	Solid	11/05/21 15:57	11/08/21 16:15	0.5
890-1546-4	SS04	Solid	11/05/21 15:58	11/08/21 16:15	0.5

1

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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  
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

www.xenco.com

Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 North A Street Bldg 1, Unit 222	Address:	3300 North A Street Bldg 1, Unit 222
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Midland, Texas 79705
Phone:	817-683-2503	Email:	kalei.jennings@wsp.com, payton.benner@wsp.com

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

Project Name:	NoCaster 19 Federal 004H	Turn Around	<input checked="" type="checkbox"/>
Project Number:	31402909.16	Routine	<input checked="" type="checkbox"/>
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	
<b>SAMPLE RECEIPT</b>			
Temperature (°C):	1.6/1.4	Temp Blank:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Received Intact:	Yes	Thermometer ID	TN M. 503
Cooler Custody Seals:	Yes	Correction Factor:	-0.2
Sample Custody Seals:	Yes	Total Containers:	
<b>Sample Identification</b>			
Sample ID	Matrix	Date Sampled	Time Sampled
SS01	S	11/05/21	15:53
SS02	S	11/05/21	15:55
SS03	S	11/05/21	15:57
SS04	S	11/05/21	15:58
<b>Number of Containers</b>			
TPH (EPA 8015)			
BTEX (EPA 0-8021)			
Chloride (EPA 300.0)			
<b>ANALYSIS REQUEST</b>			
<b>Work Order Notes</b>			



890-1546 Chain of Custody

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

Sample Comments

Discrete

Discrete

Discrete

Discrete

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631-245-1-7470-7471-Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	11-8-21 1615			

1	Eurofins
2	Xenco
3	Carlshad
4	
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13	
14	

## Chain of Custody Record



### Environment Testing

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

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab PM	Carrier Tracking No(s)	COC No.									
Client Contact:		Phone	Kramer Jessica		890-500 1									
Shipping/Receiving			E-Mail jessica.kramer@eurofins.com	State of Origin New Mexico	Page 1 of 1									
Company	Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas	Job #: 890-1546-1										
Address	11211 W. Florida Ave	Due Date Requested 11/12/2021												
City	Midland	TAT Requested (days):												
State zip	TX, 79701													
Phone	432-704-5440(Tel)	PO #:												
Email		WO #:												
Project Name:	NoCaster 19 Federal 004h	Project #:												
Site		SSOW#:												
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=wastefl, BT=titrim, A=Alp)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>8015MOD_NM/8015NM_S_Prep Full TPH</b>	<b>300_ORGFM_28D/DI_LEACH Chloride</b>	<b>8021B/6036FP_Calc BTEX</b>	<b>Total_BTEX_GCV</b>	<b>8015MOD_Calc</b>	<b>Total Number of containers</b>	<b>Special Instructions/Note:</b>
SS01 (890-1546-1)		11/5/21	15 53		Solid			X	X	X	X	X	1	
SS02 (890-1546-2)		11/5/21	15 55		Solid			X	X	X	X	X	1	
SS03 (890-1546-3)		11/5/21	15 57		Solid			X	X	X	X	X	1	
SS04 (890-1546-4)		11/5/21	15 58		Solid			X	X	X	X	X	1	
Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/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.														
<b>Possible Hazard Identification</b>														
<b>Unconfirmed</b>														
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2														
Empty Kit Relinquished by														
Relinquished by														
Relinquished by														
Relinquished by														
Custody Seals Intact: Custody Seal No														
Δ Yes Δ No														
Cooler Temperature(s) °C and Other Remarks: 39/3.9														
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>														
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months														
Special Instructions/QC Requirements														
Method of Shipment:														
Received by: 11-10-21														
Received by: 11/5														
Received by:														
Date/Time:														
Company:														

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1546-1

SDG Number: 31402909.16

Login Number: 1546

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1546-1

SDG Number: 31402909.16

Login Number: 1546

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

List Creation: 11/10/21 11:22 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8/3.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	





## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-1960-1  
Laboratory Sample Delivery Group: 31402309.16  
Client Project/Site: NoCaster 19

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

Attn: Kalei Jennings

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

Authorized for release by:  
2/28/2022 7:37:43 PM

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?



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: NoCaster 19

Laboratory Job ID: 890-1960-1  
SDG: 31402309.16

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## 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
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

---

**Job ID: 890-1960-1**

---

**Laboratory: Eurofins Carlsbad**

---

**Narrative**

---

**Job Narrative  
890-1960-1****Receipt**

The samples were received on 2/16/2022 11:07 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 2.4°C

**GC VOA**

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-19724 and analytical batch 880-20289 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 RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-19826 and analytical batch 880-19863 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28)

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19826 and analytical batch 880-19863 were outside control limits.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-19826/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-19794 and analytical batch 880-19891 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-19794 and analytical batch 880-19891 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: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH01

Lab Sample ID: 890-1960-1

Date Collected: 02/15/22 11:42

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 22:38	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 22:38	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 22:38	1
m-Xylene & p-Xylene	<0.00397	U F1	0.00397	mg/Kg		02/18/22 09:30	02/25/22 22:38	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 22:38	1
Xylenes, Total	<0.00397	U F1	0.00397	mg/Kg		02/18/22 09:30	02/25/22 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	02/18/22 09:30	02/25/22 22:38	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/18/22 09:30	02/25/22 22:38	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	113		50.0	mg/Kg			02/28/22 20:00	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	50.0	mg/Kg		02/18/22 09:15	02/21/22 11:42	1
Diesel Range Organics (Over C10-C28)	113	*1 F1	50.0	mg/Kg		02/18/22 09:15	02/21/22 11:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 11:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	02/18/22 09:15	02/21/22 11:42	1
o-Terphenyl	113		70 - 130	02/18/22 09:15	02/21/22 11:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	960		25.0	mg/Kg			02/21/22 21:54	5

Client Sample ID: BH01A

Lab Sample ID: 890-1960-2

Date Collected: 02/15/22 11:54

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/18/22 09:30	02/25/22 22:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/18/22 09:30	02/25/22 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	02/18/22 09:30	02/25/22 22:59	1

Eurofins Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH01A

Lab Sample ID: 890-1960-2

Date Collected: 02/15/22 11:54

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	95		70 - 130	02/18/22 09:30	02/25/22 22:59	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 12:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 12:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 12:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			02/18/22 09:15	02/21/22 12:44	1
o-Terphenyl	106		70 - 130			02/18/22 09:15	02/21/22 12:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1430		25.1	mg/Kg			02/21/22 22:13	5

Client Sample ID: BH01B

Lab Sample ID: 890-1960-3

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/25/22 23:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/25/22 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	02/18/22 09:30	02/25/22 23:19	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/18/22 09:30	02/25/22 23:19	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/22 20:00	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## Client Sample ID: BH01B

## Lab Sample ID: 890-1960-3

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 13:04	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 13:04	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 13:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			02/18/22 09:15	02/21/22 13:04	1
o-Terphenyl	110		70 - 130			02/18/22 09:15	02/21/22 13:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	761		4.98	mg/Kg			02/21/22 22:19	1

## Client Sample ID: BH02

## Lab Sample ID: 890-1960-4

Date Collected: 02/15/22 12:09

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 23:40	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 23:40	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 23:40	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/25/22 23:40	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/25/22 23:40	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/25/22 23:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/18/22 09:30	02/25/22 23:40	1
1,4-Difluorobenzene (Surr)	98		70 - 130			02/18/22 09:30	02/25/22 23:40	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 13:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 13:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 13:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			02/18/22 09:15	02/21/22 13:25	1
o-Terphenyl	109		70 - 130			02/18/22 09:15	02/21/22 13:25	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## Client Sample ID: BH02

## Lab Sample ID: 890-1960-4

Date Collected: 02/15/22 12:09

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.5		4.96	mg/Kg			02/21/22 22:38	1

## Client Sample ID: BH02A

## Lab Sample ID: 890-1960-5

Date Collected: 02/15/22 12:16

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:00	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:00	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:00	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 00:00	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:00	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 00:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			02/18/22 09:30	02/26/22 00:00	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/18/22 09:30	02/26/22 00:00	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 13:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 13:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130			02/18/22 09:15	02/21/22 13:45	1
o-Terphenyl	97		70 - 130			02/18/22 09:15	02/21/22 13:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.1		5.05	mg/Kg			02/21/22 22:44	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH02B

Lab Sample ID: 890-1960-6

Date Collected: 02/15/22 12:21

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:21	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:21	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:21	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 00:21	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 00:21	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 00:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/18/22 09:30	02/26/22 00:21	1
1,4-Difluorobenzene (Surr)	98		70 - 130	02/18/22 09:30	02/26/22 00:21	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 14:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 14:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	02/18/22 09:15	02/21/22 14:06	1
o-Terphenyl	111		70 - 130	02/18/22 09:15	02/21/22 14:06	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27.4		4.98	mg/Kg			02/21/22 22:51	1

Client Sample ID: BH03

Lab Sample ID: 890-1960-7

Date Collected: 02/15/22 12:29

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 00:42	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 00:42	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 00:42	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 00:42	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 00:42	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 00:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/18/22 09:30	02/26/22 00:42	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH03

Lab Sample ID: 890-1960-7

Date Collected: 02/15/22 12:29

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	02/18/22 09:30	02/26/22 00:42	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			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 14:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 14:26	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 14:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			02/18/22 09:15	02/21/22 14:26	1
o-Terphenyl	113		70 - 130			02/18/22 09:15	02/21/22 14:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	689		5.05	mg/Kg			02/21/22 22:57	1

Client Sample ID: BH03A

Lab Sample ID: 890-1960-8

Date Collected: 02/15/22 12:34

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/18/22 09:30	02/26/22 01:02	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		02/18/22 09:30	02/26/22 01:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	02/18/22 09:30	02/26/22 01:02	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/18/22 09:30	02/26/22 01:02	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH03A

Lab Sample ID: 890-1960-8

Date Collected: 02/15/22 12:34

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 14:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 14:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 14:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			02/18/22 09:15	02/21/22 14:47	1
o-Terphenyl	115		70 - 130			02/18/22 09:15	02/21/22 14:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	234		4.97	mg/Kg			02/21/22 23:03	1

Client Sample ID: BH03B

Lab Sample ID: 890-1960-9

Date Collected: 02/15/22 12:39

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 01:23	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 01:23	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 01:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 01:23	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 01:23	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 01:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			02/18/22 09:30	02/26/22 01:23	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/18/22 09:30	02/26/22 01:23	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 15:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 15:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 15:08	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130			02/18/22 09:15	02/21/22 15:08	1
o-Terphenyl	123		70 - 130			02/18/22 09:15	02/21/22 15:08	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## Client Sample ID: BH03B

## Lab Sample ID: 890-1960-9

Date Collected: 02/15/22 12:39

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.0		4.95	mg/Kg			02/21/22 23:10	1

## Client Sample ID: BH04

## Lab Sample ID: 890-1960-10

Date Collected: 02/15/22 12:51

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 01:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 01:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 01:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/18/22 09:30	02/26/22 01:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 01:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/18/22 09:30	02/26/22 01:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/18/22 09:30	02/26/22 01:44	1
1,4-Difluorobenzene (Surr)	98		70 - 130			02/18/22 09:30	02/26/22 01:44	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 15:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 15:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 15:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130			02/18/22 09:15	02/21/22 15:28	1
o-Terphenyl	128		70 - 130			02/18/22 09:15	02/21/22 15:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	644		5.00	mg/Kg			02/21/22 23:16	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH04A

Lab Sample ID: 890-1960-11

Date Collected: 02/15/22 12:57

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 03:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:08	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 03:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	02/18/22 09:30	02/26/22 03:08	1
1,4-Difluorobenzene (Surr)	93		70 - 130	02/18/22 09:30	02/26/22 03:08	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 16:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 16:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	02/18/22 09:15	02/21/22 16:09	1
o-Terphenyl	114		70 - 130	02/18/22 09:15	02/21/22 16:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		5.01	mg/Kg			02/22/22 10:07	1

Client Sample ID: BH04B

Lab Sample ID: 890-1960-12

Date Collected: 02/15/22 13:01

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 03:28	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 03:28	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 03:28	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/18/22 09:30	02/26/22 03:28	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 03:28	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/18/22 09:30	02/26/22 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	02/18/22 09:30	02/26/22 03:28	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH04B

Lab Sample ID: 890-1960-12

Date Collected: 02/15/22 13:01

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	92		70 - 130	02/18/22 09:30	02/26/22 03:28	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			02/18/22 09:15	02/21/22 16:30	1
o-Terphenyl	107		70 - 130			02/18/22 09:15	02/21/22 16:30	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.9		4.97	mg/Kg			02/22/22 10:13	1

Client Sample ID: BH05

Lab Sample ID: 890-1960-13

Date Collected: 02/15/22 15:57

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 03:49	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 03:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/18/22 09:30	02/26/22 03:49	1
1,4-Difluorobenzene (Surr)	97		70 - 130	02/18/22 09:30	02/26/22 03:49	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH05

Lab Sample ID: 890-1960-13

Date Collected: 02/15/22 15:57

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 16:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			02/18/22 09:15	02/21/22 16:50	1
o-Terphenyl	110		70 - 130			02/18/22 09:15	02/21/22 16:50	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	531		4.96	mg/Kg			02/22/22 10:20	1

Client Sample ID: BH05A

Lab Sample ID: 890-1960-14

Date Collected: 02/15/22 16:01

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 04:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 04:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 04:10	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/18/22 09:30	02/26/22 04:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 04:10	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/18/22 09:30	02/26/22 04:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			02/18/22 09:30	02/26/22 04:10	1
1,4-Difluorobenzene (Surr)	93		70 - 130			02/18/22 09:30	02/26/22 04:10	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			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			02/18/22 09:15	02/21/22 17:11	1
o-Terphenyl	104		70 - 130			02/18/22 09:15	02/21/22 17:11	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## Client Sample ID: BH05A

Lab Sample ID: 890-1960-14

Date Collected: 02/15/22 16:01

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.1	F1	5.00	mg/Kg			02/22/22 10:26	1

## Client Sample ID: BH05B

Lab Sample ID: 890-1960-15

Date Collected: 02/15/22 16:04

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 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		02/18/22 09:30	02/26/22 04:30	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/18/22 09:30	02/26/22 04:30	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/18/22 09:30	02/26/22 04:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		02/18/22 09:30	02/26/22 04:30	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/18/22 09:30	02/26/22 04:30	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		02/18/22 09:30	02/26/22 04:30	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			02/18/22 09:30	02/26/22 04:30	1
1,4-Difluorobenzene (Surr)	95		70 - 130			02/18/22 09:30	02/26/22 04:30	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			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:32	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:32	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/18/22 09:15	02/21/22 17:32	1
o-Terphenyl	99		70 - 130			02/18/22 09:15	02/21/22 17:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.9		5.02	mg/Kg			02/22/22 10:45	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH06

Lab Sample ID: 890-1960-16

Date Collected: 02/15/22 15:16

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 04:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 04:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 04:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 04:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 04:51	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 04:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	02/18/22 09:30	02/26/22 04:51	1
1,4-Difluorobenzene (Surr)	97		70 - 130	02/18/22 09:30	02/26/22 04:51	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 17:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	02/18/22 09:15	02/21/22 17:52	1
o-Terphenyl	115		70 - 130	02/18/22 09:15	02/21/22 17:52	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	700		24.9	mg/Kg			02/22/22 10:51	5

Client Sample ID: BH06A

Lab Sample ID: 890-1960-17

Date Collected: 02/15/22 15:25

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 05:11	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 05:11	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 05:11	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/18/22 09:30	02/26/22 05:11	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/18/22 09:30	02/26/22 05:11	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/18/22 09:30	02/26/22 05:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/18/22 09:30	02/26/22 05:11	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH06A

Lab Sample ID: 890-1960-17

Date Collected: 02/15/22 15:25

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130	02/18/22 09:30	02/26/22 05:11	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			02/18/22 09:15	02/21/22 18:12	1
o-Terphenyl	100		70 - 130			02/18/22 09:15	02/21/22 18:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	833		4.96	mg/Kg			02/22/22 11:10	1

Client Sample ID: BH06B

Lab Sample ID: 890-1960-18

Date Collected: 02/15/22 15:30

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:32	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/18/22 09:30	02/26/22 05:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	02/18/22 09:30	02/26/22 05:32	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/18/22 09:30	02/26/22 05:32	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			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/28/22 20:00	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH06B

Lab Sample ID: 890-1960-18

Date Collected: 02/15/22 15:30

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 09:15	02/21/22 18:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			02/18/22 09:15	02/21/22 18:33	1
o-Terphenyl	106		70 - 130			02/18/22 09:15	02/21/22 18:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	495		5.05	mg/Kg			02/22/22 11:17	1

Client Sample ID: BH07

Lab Sample ID: 890-1960-19

Date Collected: 02/15/22 15:36

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:52	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 05:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/26/22 05:52	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/18/22 09:30	02/26/22 05:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			02/18/22 09:30	02/26/22 05:52	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/18/22 09:30	02/26/22 05:52	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 18:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 18:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 18:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130			02/18/22 09:15	02/21/22 18:53	1
o-Terphenyl	111		70 - 130			02/18/22 09:15	02/21/22 18:53	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH07

Lab Sample ID: 890-1960-19

Date Collected: 02/15/22 15:36

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	392		4.98	mg/Kg			02/22/22 11:23	1

Client Sample ID: BH07A

Lab Sample ID: 890-1960-20

Date Collected: 02/15/22 15:41

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 3

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 06:13	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 06:13	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 06:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 06:13	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/18/22 09:30	02/26/22 06:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 09:30	02/26/22 06:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130			02/18/22 09:30	02/26/22 06:13	1
1,4-Difluorobenzene (Surr)	98		70 - 130			02/18/22 09:30	02/26/22 06:13	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			02/28/22 18:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/28/22 20:00	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 19:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 09:15	02/21/22 19:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 19:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			02/18/22 09:15	02/21/22 19:13	1
o-Terphenyl	109		70 - 130			02/18/22 09:15	02/21/22 19:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	56.1		5.05	mg/Kg			02/22/22 11:29	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH07B

Lab Sample ID: 890-1960-21

Date Collected: 02/15/22 15:45

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/24/22 09:00	02/25/22 16:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/24/22 09:00	02/25/22 16:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/24/22 09:00	02/25/22 16:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/24/22 09:00	02/25/22 16:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/24/22 09:00	02/25/22 16:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/24/22 09:00	02/25/22 16:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	02/24/22 09:00	02/25/22 16:19	1
1,4-Difluorobenzene (Surr)	95		70 - 130	02/24/22 09:00	02/25/22 16:19	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/25/22 20:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/21/22 19:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 *1	50.0	mg/Kg		02/18/22 14:35	02/19/22 23:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *1	50.0	mg/Kg		02/18/22 14:35	02/19/22 23:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 14:35	02/19/22 23:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130	02/18/22 14:35	02/19/22 23:11	1
o-Terphenyl	80		70 - 130	02/18/22 14:35	02/19/22 23:11	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26.1		4.97	mg/Kg			02/22/22 11:36	1

Client Sample ID: BH08

Lab Sample ID: 890-1960-22

Date Collected: 02/15/22 16:12

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 16:39	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 16:39	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 16:39	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/24/22 09:00	02/25/22 16:39	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 16:39	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/24/22 09:00	02/25/22 16:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	02/24/22 09:00	02/25/22 16:39	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH08

Lab Sample ID: 890-1960-22

Date Collected: 02/15/22 16:12

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130	02/24/22 09:00	02/25/22 16:39	1

## Method: Total BTEX - Total BTEX Calculation

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

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/21/22 19:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	50.0	mg/Kg		02/18/22 14:35	02/20/22 00:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		02/18/22 14:35	02/20/22 00:12	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 14:35	02/20/22 00:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130			02/18/22 14:35	02/20/22 00:12	1
o-Terphenyl	77		70 - 130			02/18/22 14:35	02/20/22 00:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.0		4.95	mg/Kg			02/22/22 11:42	1

Client Sample ID: BH08A

Lab Sample ID: 890-1960-23

Date Collected: 02/15/22 16:16

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 17:00	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 17:00	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 17:00	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/24/22 09:00	02/25/22 17:00	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 17:00	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/24/22 09:00	02/25/22 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	02/24/22 09:00	02/25/22 17:00	1
1,4-Difluorobenzene (Surr)	91		70 - 130	02/24/22 09:00	02/25/22 17:00	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			02/25/22 20:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/21/22 19:16	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH08A

Lab Sample ID: 890-1960-23

Date Collected: 02/15/22 16:16

Matrix: Solid

Date Received: 02/16/22 11:07

Sample Depth: 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9	mg/Kg		02/18/22 14:35	02/20/22 00:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/18/22 14:35	02/20/22 00:33	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 14:35	02/20/22 00:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	02/18/22 14:35	02/20/22 00:33	1
o-Terphenyl	94		70 - 130	02/18/22 14:35	02/20/22 00:33	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		5.00	mg/Kg			02/22/22 11:48	1

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
880-11356-A-1-E MS	Matrix Spike	92	111
880-11356-A-1-F MSD	Matrix Spike Duplicate	93	106
890-1960-1	BH01	100	98
890-1960-1 MS	BH01	102	100
890-1960-1 MSD	BH01	102	100
890-1960-2	BH01A	108	95
890-1960-3	BH01B	102	98
890-1960-4	BH02	104	98
890-1960-5	BH02A	103	97
890-1960-6	BH02B	104	98
890-1960-7	BH03	103	97
890-1960-8	BH03A	101	96
890-1960-9	BH03B	103	97
890-1960-10	BH04	104	98
890-1960-11	BH04A	106	93
890-1960-12	BH04B	107	92
890-1960-13	BH05	103	97
890-1960-14	BH05A	114	93
890-1960-15	BH05B	105	95
890-1960-16	BH06	102	97
890-1960-17	BH06A	103	99
890-1960-18	BH06B	113	95
890-1960-19	BH07	101	97
890-1960-20	BH07A	106	98
890-1960-21	BH07B	112	95
890-1960-22	BH08	115	93
890-1960-23	BH08A	109	91
LCS 880-19724/1-A	Lab Control Sample	103	101
LCS 880-19725/1-A	Lab Control Sample	86	107
LCSD 880-19724/2-A	Lab Control Sample Dup	101	90
LCSD 880-19725/2-A	Lab Control Sample Dup	85	110
MB 880-19724/5-A	Method Blank	99	96
MB 880-19725/5-A	Method Blank	109	102
MB 880-20196/5-A	Method Blank	95	95

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1	OTPH1
		(70-130)	(70-130)
890-1960-1	BH01	109	113
890-1960-1 MS	BH01	104	96
890-1960-1 MSD	BH01	100	92
890-1960-2	BH01A	103	106
890-1960-3	BH01B	105	110

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## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1960-4	BH02	107	109
890-1960-5	BH02A	94	97
890-1960-6	BH02B	104	111
890-1960-7	BH03	110	113
890-1960-8	BH03A	111	115
890-1960-9	BH03B	118	123
890-1960-10	BH04	122	128
890-1960-11	BH04A	109	114
890-1960-12	BH04B	103	107
890-1960-13	BH05	105	110
890-1960-14	BH05A	101	104
890-1960-15	BH05B	98	99
890-1960-16	BH06	110	115
890-1960-17	BH06A	98	100
890-1960-18	BH06B	105	106
890-1960-19	BH07	106	111
890-1960-20	BH07A	107	109
890-1960-21	BH07B	78	80
890-1960-21 MS	BH07B	79	83
890-1960-21 MSD	BH07B	90	96
890-1960-22	BH08	79	77
890-1960-23	BH08A	95	94
LCS 880-19794/2-A	Lab Control Sample	103	109
LCSD 880-19794/3-A	Lab Control Sample Dup	102	111
MB 880-19794/1-A	Method Blank	105	113
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-19826/2-A	Lab Control Sample	126	134 S1+
LCSD 880-19826/3-A	Lab Control Sample Dup	94	103
MB 880-19826/1-A	Method Blank	96	100
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

Lab Sample ID: MB 880-19724/5-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19724

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/18/22 09:30	02/25/22 22:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 09:30	02/25/22 22:16	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/18/22 09:30	02/25/22 22:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	02/18/22 09:30	02/25/22 22:16	1
1,4-Difluorobenzene (Surr)	96		70 - 130	02/18/22 09:30	02/25/22 22:16	1

Lab Sample ID: LCS 880-19724/1-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19724

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1109		mg/Kg		111	70 - 130
Toluene	0.100	0.1068		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1049		mg/Kg		105	70 - 130
m-Xylene & p-Xylene	0.200	0.2171		mg/Kg		109	70 - 130
o-Xylene	0.100	0.1069		mg/Kg		107	70 - 130

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

Lab Sample ID: LCSD 880-19724/2-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19724

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1024		mg/Kg		102	70 - 130	8	35
Toluene	0.100	0.1011		mg/Kg		101	70 - 130	6	35
Ethylbenzene	0.100	0.09904		mg/Kg		99	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2050		mg/Kg		103	70 - 130	6	35
o-Xylene	0.100	0.1005		mg/Kg		101	70 - 130	6	35

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

Lab Sample ID: 890-1960-1 MS

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 19724

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U	0.100	0.08339		mg/Kg		83	70 - 130
Toluene	<0.00198	U	0.100	0.07764		mg/Kg		77	70 - 130

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

Lab Sample ID: 890-1960-1 MS

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 19724

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U	0.100	0.07096		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1	0.201	0.1153	F1	mg/Kg		57	70 - 130
o-Xylene	<0.00198	U	0.100	0.07878		mg/Kg		78	70 - 130

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

Lab Sample ID: 890-1960-1 MSD

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 19724

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.100	0.08074		mg/Kg		81	70 - 130	3	35
Toluene	<0.00198	U	0.100	0.07557		mg/Kg		75	70 - 130	3	35
Ethylbenzene	<0.00198	U	0.100	0.07013		mg/Kg		70	70 - 130	1	35
m-Xylene & p-Xylene	<0.00397	U F1	0.200	0.1195	F1	mg/Kg		60	70 - 130	4	35
o-Xylene	<0.00198	U	0.100	0.07891		mg/Kg		79	70 - 130	0	35

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19725

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

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19725

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

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19725

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	0.100	0.08954		mg/Kg		90	70 - 130

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19725

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

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19725

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0990	0.1104		mg/Kg		112	70 - 130
Toluene	<0.00199	U	0.0990	0.09183		mg/Kg		92	70 - 130
Ethylbenzene	0.00258		0.0990	0.09203		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1885		mg/Kg		93	70 - 130
o-Xylene	0.00237		0.0990	0.09318		mg/Kg		92	70 - 130

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19725

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

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19725

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

Lab Sample ID: MB 880-20196/5-A

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20196

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:19	02/25/22 11:22	1	
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:19	02/25/22 11:22	1	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:19	02/25/22 11:22	1	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 10:19	02/25/22 11:22	1	
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 10:19	02/25/22 11:22	1	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 10:19	02/25/22 11:22	1	
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	95		70 - 130			02/24/22 10:19	02/25/22 11:22	1	
1,4-Difluorobenzene (Surr)	95		70 - 130			02/24/22 10:19	02/25/22 11:22	1	

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

Lab Sample ID: MB 880-19794/1-A

Matrix: Solid

Analysis Batch: 19891

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19794

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 10:40	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 10:40	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 09:15	02/21/22 10:40	1	
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
1-Chlorooctane	105		70 - 130			02/18/22 09:15	02/21/22 10:40	1	
o-Terphenyl	113		70 - 130			02/18/22 09:15	02/21/22 10:40	1	

Lab Sample ID: LCS 880-19794/2-A

Matrix: Solid

Analysis Batch: 19891

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19794

	Spike	LCS	LCS						
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	818.6		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	1004		mg/Kg		100	70 - 130		
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	103		70 - 130						
o-Terphenyl	109		70 - 130						

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

Lab Sample ID: LCSD 880-19794/3-A

Matrix: Solid

Analysis Batch: 19891

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19794

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	997.8		mg/Kg		100	70 - 130	20	20
Diesel Range Organics (Over C10-C28)	1000	1271	*1	mg/Kg		127	70 - 130	23	20
		LCSD %Recovery	LCSD Qualifier						
Surrogate									
1-Chlorooctane		102							
o-Terphenyl		111							

Lab Sample ID: 890-1960-1 MS

Matrix: Solid

Analysis Batch: 19891

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 19794

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	1000	1833	F1	mg/Kg		180	70 - 130		
Diesel Range Organics (Over C10-C28)	113	*1 F1	1000	1456	F1	mg/Kg		134	70 - 130		
		MS %Recovery	MS Qualifier								
Surrogate											
1-Chlorooctane		104									
o-Terphenyl		96									

Lab Sample ID: 890-1960-1 MSD

Matrix: Solid

Analysis Batch: 19891

Client Sample ID: BH01

Prep Type: Total/NA

Prep Batch: 19794

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1	998	1562	F1	mg/Kg		154	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	113	*1 F1	998	1407		mg/Kg		130	70 - 130	3	20
		MSD %Recovery	MSD Qualifier								
Surrogate											
1-Chlorooctane		100									
o-Terphenyl		92									

Lab Sample ID: MB 880-19826/1-A

Matrix: Solid

Analysis Batch: 19863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19826

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 14:35	02/19/22 22:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/18/22 14:35	02/19/22 22:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 14:35	02/19/22 22:04	1

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

Lab Sample ID: MB 880-19826/1-A

Matrix: Solid

Analysis Batch: 19863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19826

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac			
1-Chlorooctane	96		70 - 130	02/18/22 14:35	02/19/22 22:04	1				
o-Terphenyl	100		70 - 130	02/18/22 14:35	02/19/22 22:04	1				

Lab Sample ID: LCS 880-19826/2-A

Matrix: Solid

Analysis Batch: 19863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19826

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1174		mg/Kg		117	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1072		mg/Kg		107	70 - 130		

	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	126		70 - 130								
o-Terphenyl	134	S1+	70 - 130								

Lab Sample ID: LCSD 880-19826/3-A

Matrix: Solid

Analysis Batch: 19863

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19826

			Spike	LCSD	LCSD				%Rec.		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	904.3	*1	mg/Kg		90	70 - 130	26	20	
Diesel Range Organics (Over C10-C28)			1000	821.9	*1	mg/Kg		82	70 - 130	26	20	

	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	94		70 - 130									
o-Terphenyl	103		70 - 130									

Lab Sample ID: 890-1960-21 MS

Matrix: Solid

Analysis Batch: 19863

Client Sample ID: BH07B

Prep Type: Total/NA

Prep Batch: 19826

	Sample	Sample	Spike	MS	MS				%Rec.			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 *1	1000	1127		mg/Kg		110	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *1	1000	1300		mg/Kg		130	70 - 130			

	MS	MS										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	79		70 - 130									
o-Terphenyl	83		70 - 130									

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

Lab Sample ID: 890-1960-21 MSD

Matrix: Solid

Analysis Batch: 19863

Client Sample ID: BH07B

Prep Type: Total/NA

Prep Batch: 19826

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 *1	998	1341	F1	mg/Kg		132	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1 *1	998	1497	F1	mg/Kg		150	70 - 130	14	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	90		70 - 130								
o-Terphenyl	96		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19804/1-A

Matrix: Solid

Analysis Batch: 19937

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/21/22 19:59	1

Lab Sample ID: LCS 880-19804/2-A

Matrix: Solid

Analysis Batch: 19937

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-19804/3-A

Matrix: Solid

Analysis Batch: 19937

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	254.4		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 890-1960-1 MS

Matrix: Solid

Analysis Batch: 19937

Client Sample ID: BH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	960		1250	2122		mg/Kg		93	90 - 110

Lab Sample ID: 890-1960-1 MSD

Matrix: Solid

Analysis Batch: 19937

Client Sample ID: BH01

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	960		1250	2278		mg/Kg		105	90 - 110	7	20

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## QC Sample Results

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-19805/1-A

Matrix: Solid

Analysis Batch: 19939

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/22/22 08:38	1

Lab Sample ID: LCS 880-19805/2-A

Matrix: Solid

Analysis Batch: 19939

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	255.3		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-19805/3-A

Matrix: Solid

Analysis Batch: 19939

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	261.8		mg/Kg		105	90 - 110	2	20

Lab Sample ID: 890-1960-14 MS

Matrix: Solid

Analysis Batch: 19939

Client Sample ID: BH05A

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	41.1	F1	250	246.0	F1	mg/Kg		82	90 - 110

Lab Sample ID: 890-1960-14 MSD

Matrix: Solid

Analysis Batch: 19939

Client Sample ID: BH05A

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	41.1	F1	250	297.0		mg/Kg		102	90 - 110	19	20

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## GC VOA

## Prep Batch: 19724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	5035	
890-1960-2	BH01A	Total/NA	Solid	5035	
890-1960-3	BH01B	Total/NA	Solid	5035	
890-1960-4	BH02	Total/NA	Solid	5035	
890-1960-5	BH02A	Total/NA	Solid	5035	
890-1960-6	BH02B	Total/NA	Solid	5035	
890-1960-7	BH03	Total/NA	Solid	5035	
890-1960-8	BH03A	Total/NA	Solid	5035	
890-1960-9	BH03B	Total/NA	Solid	5035	
890-1960-10	BH04	Total/NA	Solid	5035	
890-1960-11	BH04A	Total/NA	Solid	5035	
890-1960-12	BH04B	Total/NA	Solid	5035	
890-1960-13	BH05	Total/NA	Solid	5035	
890-1960-14	BH05A	Total/NA	Solid	5035	
890-1960-15	BH05B	Total/NA	Solid	5035	
890-1960-16	BH06	Total/NA	Solid	5035	
890-1960-17	BH06A	Total/NA	Solid	5035	
890-1960-18	BH06B	Total/NA	Solid	5035	
890-1960-19	BH07	Total/NA	Solid	5035	
890-1960-20	BH07A	Total/NA	Solid	5035	
MB 880-19724/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19724/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19724/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1960-1 MS	BH01	Total/NA	Solid	5035	
890-1960-1 MSD	BH01	Total/NA	Solid	5035	

## Prep Batch: 19725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	5035	
890-1960-22	BH08	Total/NA	Solid	5035	
890-1960-23	BH08A	Total/NA	Solid	5035	
MB 880-19725/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19725/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19725/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11356-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-11356-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Prep Batch: 20196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-20196/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 20287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8021B	19725
890-1960-22	BH08	Total/NA	Solid	8021B	19725
890-1960-23	BH08A	Total/NA	Solid	8021B	19725
MB 880-19725/5-A	Method Blank	Total/NA	Solid	8021B	19725
LCS 880-19725/1-A	Lab Control Sample	Total/NA	Solid	8021B	19725
LCSD 880-19725/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19725
880-11356-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	19725
880-11356-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19725

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## GC VOA

## Analysis Batch: 20289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8021B	19724
890-1960-2	BH01A	Total/NA	Solid	8021B	19724
890-1960-3	BH01B	Total/NA	Solid	8021B	19724
890-1960-4	BH02	Total/NA	Solid	8021B	19724
890-1960-5	BH02A	Total/NA	Solid	8021B	19724
890-1960-6	BH02B	Total/NA	Solid	8021B	19724
890-1960-7	BH03	Total/NA	Solid	8021B	19724
890-1960-8	BH03A	Total/NA	Solid	8021B	19724
890-1960-9	BH03B	Total/NA	Solid	8021B	19724
890-1960-10	BH04	Total/NA	Solid	8021B	19724
890-1960-11	BH04A	Total/NA	Solid	8021B	19724
890-1960-12	BH04B	Total/NA	Solid	8021B	19724
890-1960-13	BH05	Total/NA	Solid	8021B	19724
890-1960-14	BH05A	Total/NA	Solid	8021B	19724
890-1960-15	BH05B	Total/NA	Solid	8021B	19724
890-1960-16	BH06	Total/NA	Solid	8021B	19724
890-1960-17	BH06A	Total/NA	Solid	8021B	19724
890-1960-18	BH06B	Total/NA	Solid	8021B	19724
890-1960-19	BH07	Total/NA	Solid	8021B	19724
890-1960-20	BH07A	Total/NA	Solid	8021B	19724
MB 880-19724/5-A	Method Blank	Total/NA	Solid	8021B	19724
MB 880-20196/5-A	Method Blank	Total/NA	Solid	8021B	20196
LCS 880-19724/1-A	Lab Control Sample	Total/NA	Solid	8021B	19724
LCSD 880-19724/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19724
890-1960-1 MS	BH01	Total/NA	Solid	8021B	19724
890-1960-1 MSD	BH01	Total/NA	Solid	8021B	19724

## Analysis Batch: 20370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	Total BTEX	
890-1960-22	BH08	Total/NA	Solid	Total BTEX	
890-1960-23	BH08A	Total/NA	Solid	Total BTEX	

## Analysis Batch: 20556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	Total BTEX	
890-1960-2	BH01A	Total/NA	Solid	Total BTEX	
890-1960-3	BH01B	Total/NA	Solid	Total BTEX	
890-1960-4	BH02	Total/NA	Solid	Total BTEX	
890-1960-5	BH02A	Total/NA	Solid	Total BTEX	
890-1960-6	BH02B	Total/NA	Solid	Total BTEX	
890-1960-7	BH03	Total/NA	Solid	Total BTEX	
890-1960-8	BH03A	Total/NA	Solid	Total BTEX	
890-1960-9	BH03B	Total/NA	Solid	Total BTEX	
890-1960-10	BH04	Total/NA	Solid	Total BTEX	
890-1960-11	BH04A	Total/NA	Solid	Total BTEX	
890-1960-12	BH04B	Total/NA	Solid	Total BTEX	
890-1960-13	BH05	Total/NA	Solid	Total BTEX	
890-1960-14	BH05A	Total/NA	Solid	Total BTEX	
890-1960-15	BH05B	Total/NA	Solid	Total BTEX	
890-1960-16	BH06	Total/NA	Solid	Total BTEX	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## GC VOA (Continued)

## Analysis Batch: 20556 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-17	BH06A	Total/NA	Solid	Total BTEX	
890-1960-18	BH06B	Total/NA	Solid	Total BTEX	
890-1960-19	BH07	Total/NA	Solid	Total BTEX	
890-1960-20	BH07A	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Prep Batch: 19794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8015NM Prep	
890-1960-2	BH01A	Total/NA	Solid	8015NM Prep	
890-1960-3	BH01B	Total/NA	Solid	8015NM Prep	
890-1960-4	BH02	Total/NA	Solid	8015NM Prep	
890-1960-5	BH02A	Total/NA	Solid	8015NM Prep	
890-1960-6	BH02B	Total/NA	Solid	8015NM Prep	
890-1960-7	BH03	Total/NA	Solid	8015NM Prep	
890-1960-8	BH03A	Total/NA	Solid	8015NM Prep	
890-1960-9	BH03B	Total/NA	Solid	8015NM Prep	
890-1960-10	BH04	Total/NA	Solid	8015NM Prep	
890-1960-11	BH04A	Total/NA	Solid	8015NM Prep	
890-1960-12	BH04B	Total/NA	Solid	8015NM Prep	
890-1960-13	BH05	Total/NA	Solid	8015NM Prep	
890-1960-14	BH05A	Total/NA	Solid	8015NM Prep	
890-1960-15	BH05B	Total/NA	Solid	8015NM Prep	
890-1960-16	BH06	Total/NA	Solid	8015NM Prep	
890-1960-17	BH06A	Total/NA	Solid	8015NM Prep	
890-1960-18	BH06B	Total/NA	Solid	8015NM Prep	
890-1960-19	BH07	Total/NA	Solid	8015NM Prep	
890-1960-20	BH07A	Total/NA	Solid	8015NM Prep	
MB 880-19794/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19794/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1960-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-1960-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

## Prep Batch: 19826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8015NM Prep	
890-1960-22	BH08	Total/NA	Solid	8015NM Prep	
890-1960-23	BH08A	Total/NA	Solid	8015NM Prep	
MB 880-19826/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19826/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19826/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1960-21 MS	BH07B	Total/NA	Solid	8015NM Prep	
890-1960-21 MSD	BH07B	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 19863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8015B NM	19826
890-1960-22	BH08	Total/NA	Solid	8015B NM	19826
890-1960-23	BH08A	Total/NA	Solid	8015B NM	19826

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## GC Semi VOA (Continued)

## Analysis Batch: 19863 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19826/1-A	Method Blank	Total/NA	Solid	8015B NM	19826
LCS 880-19826/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19826
LCSD 880-19826/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19826
890-1960-21 MS	BH07B	Total/NA	Solid	8015B NM	19826
890-1960-21 MSD	BH07B	Total/NA	Solid	8015B NM	19826

## Analysis Batch: 19891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8015B NM	19794
890-1960-2	BH01A	Total/NA	Solid	8015B NM	19794
890-1960-3	BH01B	Total/NA	Solid	8015B NM	19794
890-1960-4	BH02	Total/NA	Solid	8015B NM	19794
890-1960-5	BH02A	Total/NA	Solid	8015B NM	19794
890-1960-6	BH02B	Total/NA	Solid	8015B NM	19794
890-1960-7	BH03	Total/NA	Solid	8015B NM	19794
890-1960-8	BH03A	Total/NA	Solid	8015B NM	19794
890-1960-9	BH03B	Total/NA	Solid	8015B NM	19794
890-1960-10	BH04	Total/NA	Solid	8015B NM	19794
890-1960-11	BH04A	Total/NA	Solid	8015B NM	19794
890-1960-12	BH04B	Total/NA	Solid	8015B NM	19794
890-1960-13	BH05	Total/NA	Solid	8015B NM	19794
890-1960-14	BH05A	Total/NA	Solid	8015B NM	19794
890-1960-15	BH05B	Total/NA	Solid	8015B NM	19794
890-1960-16	BH06	Total/NA	Solid	8015B NM	19794
890-1960-17	BH06A	Total/NA	Solid	8015B NM	19794
890-1960-18	BH06B	Total/NA	Solid	8015B NM	19794
890-1960-19	BH07	Total/NA	Solid	8015B NM	19794
890-1960-20	BH07A	Total/NA	Solid	8015B NM	19794
MB 880-19794/1-A	Method Blank	Total/NA	Solid	8015B NM	19794
LCS 880-19794/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19794
LCSD 880-19794/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19794
890-1960-1 MS	BH01	Total/NA	Solid	8015B NM	19794
890-1960-1 MSD	BH01	Total/NA	Solid	8015B NM	19794

## Analysis Batch: 19992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-21	BH07B	Total/NA	Solid	8015 NM	
890-1960-22	BH08	Total/NA	Solid	8015 NM	
890-1960-23	BH08A	Total/NA	Solid	8015 NM	

## Analysis Batch: 20572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Total/NA	Solid	8015 NM	
890-1960-2	BH01A	Total/NA	Solid	8015 NM	
890-1960-3	BH01B	Total/NA	Solid	8015 NM	
890-1960-4	BH02	Total/NA	Solid	8015 NM	
890-1960-5	BH02A	Total/NA	Solid	8015 NM	
890-1960-6	BH02B	Total/NA	Solid	8015 NM	
890-1960-7	BH03	Total/NA	Solid	8015 NM	
890-1960-8	BH03A	Total/NA	Solid	8015 NM	
890-1960-9	BH03B	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## GC Semi VOA (Continued)

## Analysis Batch: 20572 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-10	BH04	Total/NA	Solid	8015 NM	
890-1960-11	BH04A	Total/NA	Solid	8015 NM	
890-1960-12	BH04B	Total/NA	Solid	8015 NM	
890-1960-13	BH05	Total/NA	Solid	8015 NM	
890-1960-14	BH05A	Total/NA	Solid	8015 NM	
890-1960-15	BH05B	Total/NA	Solid	8015 NM	
890-1960-16	BH06	Total/NA	Solid	8015 NM	
890-1960-17	BH06A	Total/NA	Solid	8015 NM	
890-1960-18	BH06B	Total/NA	Solid	8015 NM	
890-1960-19	BH07	Total/NA	Solid	8015 NM	
890-1960-20	BH07A	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Soluble	Solid	DI Leach	
890-1960-2	BH01A	Soluble	Solid	DI Leach	
890-1960-3	BH01B	Soluble	Solid	DI Leach	
890-1960-4	BH02	Soluble	Solid	DI Leach	
890-1960-5	BH02A	Soluble	Solid	DI Leach	
890-1960-6	BH02B	Soluble	Solid	DI Leach	
890-1960-7	BH03	Soluble	Solid	DI Leach	
890-1960-8	BH03A	Soluble	Solid	DI Leach	
890-1960-9	BH03B	Soluble	Solid	DI Leach	
890-1960-10	BH04	Soluble	Solid	DI Leach	
MB 880-19804/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1960-1 MS	BH01	Soluble	Solid	DI Leach	
890-1960-1 MSD	BH01	Soluble	Solid	DI Leach	

## Leach Batch: 19805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-11	BH04A	Soluble	Solid	DI Leach	
890-1960-12	BH04B	Soluble	Solid	DI Leach	
890-1960-13	BH05	Soluble	Solid	DI Leach	
890-1960-14	BH05A	Soluble	Solid	DI Leach	
890-1960-15	BH05B	Soluble	Solid	DI Leach	
890-1960-16	BH06	Soluble	Solid	DI Leach	
890-1960-17	BH06A	Soluble	Solid	DI Leach	
890-1960-18	BH06B	Soluble	Solid	DI Leach	
890-1960-19	BH07	Soluble	Solid	DI Leach	
890-1960-20	BH07A	Soluble	Solid	DI Leach	
890-1960-21	BH07B	Soluble	Solid	DI Leach	
890-1960-22	BH08	Soluble	Solid	DI Leach	
890-1960-23	BH08A	Soluble	Solid	DI Leach	
MB 880-19805/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19805/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19805/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1960-14 MS	BH05A	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

## HPLC/IC (Continued)

## Leach Batch: 19805 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-14 MSD	BH05A	Soluble	Solid	DI Leach	

## Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-1	BH01	Soluble	Solid	300.0	19804
890-1960-2	BH01A	Soluble	Solid	300.0	19804
890-1960-3	BH01B	Soluble	Solid	300.0	19804
890-1960-4	BH02	Soluble	Solid	300.0	19804
890-1960-5	BH02A	Soluble	Solid	300.0	19804
890-1960-6	BH02B	Soluble	Solid	300.0	19804
890-1960-7	BH03	Soluble	Solid	300.0	19804
890-1960-8	BH03A	Soluble	Solid	300.0	19804
890-1960-9	BH03B	Soluble	Solid	300.0	19804
890-1960-10	BH04	Soluble	Solid	300.0	19804
MB 880-19804/1-A	Method Blank	Soluble	Solid	300.0	19804
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	300.0	19804
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19804
890-1960-1 MS	BH01	Soluble	Solid	300.0	19804
890-1960-1 MSD	BH01	Soluble	Solid	300.0	19804

## Analysis Batch: 19939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1960-11	BH04A	Soluble	Solid	300.0	19805
890-1960-12	BH04B	Soluble	Solid	300.0	19805
890-1960-13	BH05	Soluble	Solid	300.0	19805
890-1960-14	BH05A	Soluble	Solid	300.0	19805
890-1960-15	BH05B	Soluble	Solid	300.0	19805
890-1960-16	BH06	Soluble	Solid	300.0	19805
890-1960-17	BH06A	Soluble	Solid	300.0	19805
890-1960-18	BH06B	Soluble	Solid	300.0	19805
890-1960-19	BH07	Soluble	Solid	300.0	19805
890-1960-20	BH07A	Soluble	Solid	300.0	19805
890-1960-21	BH07B	Soluble	Solid	300.0	19805
890-1960-22	BH08	Soluble	Solid	300.0	19805
890-1960-23	BH08A	Soluble	Solid	300.0	19805
MB 880-19805/1-A	Method Blank	Soluble	Solid	300.0	19805
LCS 880-19805/2-A	Lab Control Sample	Soluble	Solid	300.0	19805
LCSD 880-19805/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19805
890-1960-14 MS	BH05A	Soluble	Solid	300.0	19805
890-1960-14 MSD	BH05A	Soluble	Solid	300.0	19805

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH01

Lab Sample ID: 890-1960-1

Date Collected: 02/15/22 11:42

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 22:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 11:42	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		5			19937	02/21/22 21:54	CH	XEN MID

Client Sample ID: BH01A

Lab Sample ID: 890-1960-2

Date Collected: 02/15/22 11:54

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 22:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 12:44	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		5			19937	02/21/22 22:13	CH	XEN MID

Client Sample ID: BH01B

Lab Sample ID: 890-1960-3

Date Collected: 02/15/22 12:00

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 23:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 13:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:19	CH	XEN MID

Client Sample ID: BH02

Lab Sample ID: 890-1960-4

Date Collected: 02/15/22 12:09

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/25/22 23:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH02

Lab Sample ID: 890-1960-4

Date Collected: 02/15/22 12:09

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 13:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:38	CH	XEN MID

Client Sample ID: BH02A

Lab Sample ID: 890-1960-5

Date Collected: 02/15/22 12:16

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 00:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 13:45	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:44	CH	XEN MID

Client Sample ID: BH02B

Lab Sample ID: 890-1960-6

Date Collected: 02/15/22 12:21

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 00:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 14:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:51	CH	XEN MID

Client Sample ID: BH03

Lab Sample ID: 890-1960-7

Date Collected: 02/15/22 12:29

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 00:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 14:26	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH03

Lab Sample ID: 890-1960-7

Date Collected: 02/15/22 12:29

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 22:57	CH	XEN MID

Client Sample ID: BH03A

Lab Sample ID: 890-1960-8

Date Collected: 02/15/22 12:34

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 01:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 14:47	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 23:03	CH	XEN MID

Client Sample ID: BH03B

Lab Sample ID: 890-1960-9

Date Collected: 02/15/22 12:39

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 01:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 15:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 23:10	CH	XEN MID

Client Sample ID: BH04

Lab Sample ID: 890-1960-10

Date Collected: 02/15/22 12:51

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 01:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 15:28	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 23:16	CH	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH04A

Lab Sample ID: 890-1960-11

Date Collected: 02/15/22 12:57

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 03:08	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 16:09	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:07	CH	XEN MID

Client Sample ID: BH04B

Lab Sample ID: 890-1960-12

Date Collected: 02/15/22 13:01

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 03:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 16:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:13	CH	XEN MID

Client Sample ID: BH05

Lab Sample ID: 890-1960-13

Date Collected: 02/15/22 15:57

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 03:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 16:50	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:20	CH	XEN MID

Client Sample ID: BH05A

Lab Sample ID: 890-1960-14

Date Collected: 02/15/22 16:01

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 04:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH05A

Lab Sample ID: 890-1960-14

Date Collected: 02/15/22 16:01

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 17:11	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:26	CH	XEN MID

Client Sample ID: BH05B

Lab Sample ID: 890-1960-15

Date Collected: 02/15/22 16:04

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 04:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 17:32	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 10:45	CH	XEN MID

Client Sample ID: BH06

Lab Sample ID: 890-1960-16

Date Collected: 02/15/22 15:16

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 04:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 17:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		5			19939	02/22/22 10:51	CH	XEN MID

Client Sample ID: BH06A

Lab Sample ID: 890-1960-17

Date Collected: 02/15/22 15:25

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 05:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 18:12	AJ	XEN MID

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH06A

Lab Sample ID: 890-1960-17

Date Collected: 02/15/22 15:25

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.04 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:10	CH	XEN MID

Client Sample ID: BH06B

Lab Sample ID: 890-1960-18

Date Collected: 02/15/22 15:30

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 18:33	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:17	CH	XEN MID

Client Sample ID: BH07

Lab Sample ID: 890-1960-19

Date Collected: 02/15/22 15:36

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 05:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 18:53	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:23	CH	XEN MID

Client Sample ID: BH07A

Lab Sample ID: 890-1960-20

Date Collected: 02/15/22 15:41

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	19724	02/18/22 09:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20289	02/26/22 06:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20556	02/28/22 18:47	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			20572	02/28/22 20:00	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	19794	02/18/22 09:15	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19891	02/21/22 19:13	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:29	CH	XEN MID

Eurofins Carlsbad

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Client Sample ID: BH07B

Lab Sample ID: 890-1960-21

Date Collected: 02/15/22 15:45

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20287	02/25/22 16:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20370	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19992	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19826	02/18/22 14:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/19/22 23:11	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:36	CH	XEN MID

Client Sample ID: BH08

Lab Sample ID: 890-1960-22

Date Collected: 02/15/22 16:12

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20287	02/25/22 16:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20370	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19992	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19826	02/18/22 14:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/20/22 00:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:42	CH	XEN MID

Client Sample ID: BH08A

Lab Sample ID: 890-1960-23

Date Collected: 02/15/22 16:16

Matrix: Solid

Date Received: 02/16/22 11:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	19725	02/24/22 09:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20287	02/25/22 17:00	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20370	02/25/22 20:45	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19992	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19826	02/18/22 14:35	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/20/22 00:33	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	19805	02/18/22 10:30	CH	XEN MID
Soluble	Analysis	300.0		1			19939	02/22/22 11:48	CH	XEN MID

## Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Laboratory: Eurofins Midland

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

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

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

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

## Method Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

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

**Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

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



## Sample Summary

Client: WSP USA Inc.  
Project/Site: NoCaster 19

Job ID: 890-1960-1  
SDG: 31402309.16

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1960-1	BH01	Solid	02/15/22 11:42	02/16/22 11:07	1
890-1960-2	BH01A	Solid	02/15/22 11:54	02/16/22 11:07	3
890-1960-3	BH01B	Solid	02/15/22 12:00	02/16/22 11:07	5
890-1960-4	BH02	Solid	02/15/22 12:09	02/16/22 11:07	1
890-1960-5	BH02A	Solid	02/15/22 12:16	02/16/22 11:07	3
890-1960-6	BH02B	Solid	02/15/22 12:21	02/16/22 11:07	5
890-1960-7	BH03	Solid	02/15/22 12:29	02/16/22 11:07	1
890-1960-8	BH03A	Solid	02/15/22 12:34	02/16/22 11:07	3
890-1960-9	BH03B	Solid	02/15/22 12:39	02/16/22 11:07	5
890-1960-10	BH04	Solid	02/15/22 12:51	02/16/22 11:07	1
890-1960-11	BH04A	Solid	02/15/22 12:57	02/16/22 11:07	3
890-1960-12	BH04B	Solid	02/15/22 13:01	02/16/22 11:07	5
890-1960-13	BH05	Solid	02/15/22 15:57	02/16/22 11:07	1
890-1960-14	BH05A	Solid	02/15/22 16:01	02/16/22 11:07	3
890-1960-15	BH05B	Solid	02/15/22 16:04	02/16/22 11:07	5
890-1960-16	BH06	Solid	02/15/22 15:16	02/16/22 11:07	1
890-1960-17	BH06A	Solid	02/15/22 15:25	02/16/22 11:07	3
890-1960-18	BH06B	Solid	02/15/22 15:30	02/16/22 11:07	5
890-1960-19	BH07	Solid	02/15/22 15:36	02/16/22 11:07	1
890-1960-20	BH07A	Solid	02/15/22 15:41	02/16/22 11:07	3
890-1960-21	BH07B	Solid	02/15/22 15:45	02/16/22 11:07	5
890-1960-22	BH08	Solid	02/15/22 16:12	02/16/22 11:07	1
890-1960-23	BH08A	Solid	02/15/22 16:16	02/16/22 11:07	2



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
Midland, TX (432-704-5440) El Paso, TX (915) 853-3443 Lubbock, TX (806) 794-1256  
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)  
Hobbs, NM (575-392-7550)


## Chain of Custody

**Work Order No:**

Page 1 of 2

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 North A Street Building 1, unit 222	Address:	3300 North A Street Building 1, unit 222
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Midland, Texas 79705
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

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

Project Name:	NoCaster 19	Turn Around	ANALYSIS REQUEST	Work Order Notes																												
Project Number:	31402909.16	Routine <input type="checkbox"/>																														
P.O. Number:		Rush:																														
Sampler's Name:	Payton Benner	Due Date:																														
<b>SAMPLE RECEIPT</b> <table border="1"> <tr> <td>Temp Blank:</td><td><input checked="" type="checkbox"/> Yes</td><td><input type="checkbox"/> No</td><td>Well Ice:</td><td><input checked="" type="checkbox"/> Yes</td><td><input type="checkbox"/> No</td></tr> <tr> <td>Temperature (°C):</td><td colspan="5">2.6/2.7 Thermometer ID</td></tr> <tr> <td>Received Intact:</td><td colspan="5"><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</td></tr> <tr> <td>Cooler Custody Seals:</td><td colspan="5">Yes No N/A Correction Factor: -0.2</td></tr> <tr> <td>Sample Custody Seals:</td><td colspan="5">Yes No N/A Total Containers:</td></tr> </table>					Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Well Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Temperature (°C):	2.6/2.7 Thermometer ID					Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					Cooler Custody Seals:	Yes No N/A Correction Factor: -0.2					Sample Custody Seals:	Yes No N/A Total Containers:		
Temp Blank:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Well Ice:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No																											
Temperature (°C):	2.6/2.7 Thermometer ID																															
Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																															
Cooler Custody Seals:	Yes No N/A Correction Factor: -0.2																															
Sample Custody Seals:	Yes No N/A Total Containers:																															
Number of Containers																																
PA 8015)																																
(EPA 0=8021)																																
le (EPA 300.0)																																
 890-1960 Chain of Custody																																
TAT starts the day received by the lab, if received by 4:30pm																																

[illegible]

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>p. perner</i>	<i>Joe Gelp</i>	2-16-22 11:07	2		
3			4		
5			6		

Revised Date 05/11/18 Row 2018



## 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 2 of 3

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennings
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 North A Street Building 1, unit 222	Address:	3300 North A Street Building 1, unit 222
City, State ZIP:	Midland, Texas 79705	City, State ZIP:	Midland, Texas 79705
Phone:	817-683-2503	Email:	Kalei.jennings@wsp.com

Program: UST/PT <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RC <input type="checkbox"/> Superfund <input type="checkbox"/> State of Project: <input type="checkbox"/> Level II <input type="checkbox"/> Level III <input type="checkbox"/> ST/UST <input type="checkbox"/> PRP <input type="checkbox"/> Level IV <input type="checkbox"/> Reporting Level: <input type="checkbox"/> EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____		Work Order Comments TAT starts the day received by the lab, if received by 4:30pm
---	--	--

Project Name:		NoCaster 19		Turn Around		ANALYSIS REQUEST																WORK ORDER NOTES					
Project Number:		31402909.16		Routine <input type="checkbox"/>																							
P.O. Number:				Rush:																							
Sampler's Name:		Payton Benner		Due Date:																							
SAMPLE RECEIPT		Temp Blank:		Yes		No		Wet Ice:		Yes		No															
Temperature (°C):														Thermometer ID													
Received Inact:		Yes		No										Correction Factor:													
Cooler Custody Seals:		Yes		No		N/A								Total Containers:													
Sample Custody Seals:		Yes		No		N/A																					
Sample Identification		Matrix		Date Sampled		Time Sampled		Depth		Number of Containers																Sample Comments	
BH04A		S		02/15/22		12:57		3		1																DISCRETE	
BH04B		S		02/15/22		13:01		5		1																DISCRETE	
BH05		S		02/15/22		15:57		1		1																DISCRETE	
BH05A		S		02/15/22		16:01		3		1																DISCRETE	
BH05B		S		02/15/22		16:04		5		1																DISCRETE	
BH06		S		02/15/22		15:16		1		1																DISCRETE	
BH06A		S		02/15/22		15:25		3		1																DISCRETE	
BH06B		S		02/15/22		15:30		5		1																DISCRETE	
BH07		S		02/15/22		15:36		1		1																DISCRETE	
BH07A		S		02/15/22		15:41		3		1																DISCRETE	

Total 200.7 / 6010 200.8 / 6020:

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

 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn  
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	2-16-22 1107 <sup>12</sup>			

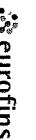


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14

## Eurofins Carlsbad

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

## Chain of Custody Record



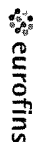
Environment Testing  
America

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab PM	Carrier Tracking No(s):		COC No								
Client Contact:	Phone		Kramer, Jessica	State of Origin		890-628 1								
Shipping/Receiving			E-Mail: jessica.kramer@eurofins.com	New Mexico		Page: 1 of 3								
Company:			Accreditations Required (See note):			Job #								
Eurofins Environment Testing South Center			NELAP - Louisiana, NELAP - Texas			890-1960-1								
Address	1211 W Florida Ave,	Due Date Requested	2/22/2022	Analysis Requested		Preservation Codes:								
City:	Midland	TAT Requested (days):				A HCL B NaOH C Zn Acetate D AsNaO2 E Nitric Acid F NaHSO4 G MeOH H - Ammonia I Ascorbic Acid J DI Water K EDTA L EDA M Hexane N - None O AsNaO2 P Na2O4S Q Na2SO3 R Na2S2O3 S - H2SO4 T TSP Dodecylhydrate U - Acetone V MCAA W pH 4.5 Z other (specify)								
State Zip:	TX, 79701	PO #												
Phone	432-704-5440(Tel)	WO #												
Email		Project #												
Project Name:	NOCaster 19	SSOW#												
Site:														
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=Comp, G=grab, BT=Tissue, A=Air)</b>	<b>Matrix (W=Water, S=solid, O=wastefoil, BT=Tissue, A=Air)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>8016MOD_NM/8016NM_S_Prep Full TPH</b>	<b>300_ORGFWM_28D/DI_LEACH Chloride</b>	<b>8021B/5036FP_Calc BTEX</b>	<b>Total BTEX_GCV</b>	<b>8016MOD_Calc</b>	<b>Total Number of containers</b>	<b>Special Instructions/Note.</b>
BH01 (890-1960-1)	2/15/22	11 42	Mountain	Solid		X	X	X	X	X	X	X	1	
BH01A (890-1960-2)	2/15/22	11 54	Mountain	Solid		X	X	X	X	X	X	X	1	
BH01B (890-1960-3)	2/15/22	12 00	Mountain	Solid		X	X	X	X	X	X	X	1	
BH02 (890-1960-4)	2/15/22	12 09	Mountain	Solid		X	X	X	X	X	X	X	1	
BH02A (890-1960-5)	2/15/22	12 16	Mountain	Solid		X	X	X	X	X	X	X	1	
BH02B (890-1960-6)	2/15/22	12 21	Mountain	Solid		X	X	X	X	X	X	X	1	
BH03 (890-1960-7)	2/15/22	12 29	Mountain	Solid		X	X	X	X	X	X	X	1	
BH03A (890-1960-8)	2/15/22	12 34	Mountain	Solid		X	X	X	X	X	X	X	1	
BH03B (890-1960-9)	2/15/22	12 39	Mountain	Solid		X	X	X	X	X	X	X	1	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Center LLC places the ownership of method analyte &amp; accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis, the sample must be shipped back to the Eurofins Environment Testing South Center LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Center LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Center LLC.</p>														
<b>Possible Hazard Identification</b>														
<p>Unconfirmed <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 Special Instructions/QC Requirements														
Empty Kit Relinquished by _____ Date _____ Time _____ Method of Shipment _____														
Relinquished by _____ Date/Time _____ Company _____ Received by _____ Date/Time _____ Company _____														
Relinquished by _____ Date/Time _____ Company _____ Received by _____ Date/Time _____ Company _____														
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No Cooler Temperature(s) °C and Other Remarks.														

## Eurofins Carlsbad

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

## Chain of Custody Record



## Environment Testing America

Client Information (Sub Contract Lab)					
Client Contact:		Phone:		Laboratory	COC No.
Shipping/Receiving				Kramer Jessica	890-628 2
Company		Eurofins Environment Testing South Cent		E-Mail jessica.kramer@eurofinet.com	Page 2 of 3
Address		Due Date Requested 2/22/2022		Accreditations Required (See note): <b>NE LAP - Louisiana NE LAP - Texas</b>	
City Midland		TAT Requested (days):		State of Origin New Mexico	
Slate Zip TX, 79701				Job #: 890-1960-1	
Phone: 432-704-5440(Tel)		PO #:		Preservation Codes	
Email		WFO #:		A.- HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2CO3 E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Decalcifyrate I Ice U Acetone J DI Water V MCQA W pH 4.5 K EDTA L EDA Z other (specify) Other	
Project Name: NCCaster 19		Project #: 890000048			
Site:		SSOW#:			
Sample Identification - Client ID (Lab ID)					
BH04 (890-1960-10)	2/15/22	Mountain	12 51	Solid	X X X X X X
BH04A (890-1960-11)	2/15/22	Mountain	12 57	Solid	X X X X X X
BH04B (890-1960-12)	2/15/22	Mountain	13 01	Solid	X X X X X X
BH05 (890-1960-13)	2/15/22	Mountain	15 57	Solid	X X X X X X
BH05A (890-1960-14)	2/15/22	Mountain	16 01	Solid	X X X X X X
BH05B (890-1960-15)	2/15/22	Mountain	16 04	Solid	X X X X X X
BH06 (890-1960-16)	2/15/22	Mountain	15 16	Solid	X X X X X X
BH06A (890-1960-17)	2/15/22	Mountain	15 25	Solid	X X X X X X
BH06B (890-1960-18)	2/15/22	Mountain	15 30	Solid	X X X X X X
Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central 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 of origin listed above for analysis/test/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other institutions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.					
Possible Hazard Identification					
Unconfirmed Deliverable Requested I II III IV Other (Specify) Primary Deliverable Rank 2 Special Instructions/QC Requirements					
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____					
Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____					
Relinquished by: _____ Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____					
Cooler Temperature(s) ° C and Other Remarks: _____					

## Eurofins Carlsbad

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

## Chain of Custody Record



Environment Testing  
America

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab PM	Carrier Tracking No(s)	COC No					
Client Contact:	Phone:	Kramer Jessica			890-628 3					
Shipping/Receiving	E-Mail	Jessica.Kramer@eurofins.com	State of Origin:		Page 3 of 3					
Company:	Eurofins Environment Testing South Cent	Accreditations Required (See note):	NEIAP - Louisiana, NEIAP - Texas	Job #:	890-1960-1					
Address:	1211 W Florida Ave	Due Date Requested	2/22/2022	Preservation Codes						
City:	Midland	TAT Requested (days):		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:						
State, Zip:	TX, 79701	PO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecylalrate U - Acetone V - MCAA W - pH 4.5 Z - other (Specify)						
Phone:	432-704-5440(Tel)	W/O #:								
Email:		Project #:	89000048							
Project Name:	NoCaster 19	SSOW#:								
Site:										
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=Comp, G=Grab)</b>	<b>Matrix (Weaver, Sealed, Or-wastvol, Br-Tissue, A=Air)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>Analysis Requested</b>	<b>Total Number of containers</b>	<b>Special Instructions/Note</b>
BH07 (890-1960-19)	2/15/22	15 36	Mountain	Solid		X	X	X	X	
BH07A (890-1960-20)	2/15/22	15 41	Mountain	Solid		X	X	X	X	
BH07B (890-1960-21)	2/15/22	15 45	Mountain	Solid		X	X	X	X	
BH08 (890-1960-22)	2/15/22	16 12	Mountain	Solid		X	X	X	X	
BH08A (890-1960-23)	2/15/22	16 16	Mountain	Solid		X	X	X	X	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method analyte & accreditation compliance upon out subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/testing, being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC.										
<b>Possible Hazard Identification</b>		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>								
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Deliverable Requested I II III IV Other (Specify)		Primary Deliverable Rank 2		Special Instructions/QC Requirements						
Empty Kit Relinquished by		Date/Time	Company	Time	Method of Shipment	Date/Time	Company			
Relinquished by		Date/Time	Company	Received by		Date/Time	Company			
Relinquished by		Date/Time	Company	Received by		Date/Time	Company			
Custody Seals Intact:		Custody Seal No		Cooler Temperature(s) °C and Other Remarks						
Δ Yes Δ No										

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1960-1

SDG Number: 31402309.16

Login Number: 1960

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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



## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1960-1

SDG Number: 31402309.16

Login Number: 1960

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 02/17/22 01:10 PM

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



ATTACHMENT 5: FORM C-141

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	
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

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

### Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

### Nature and Volume of Release

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

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

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

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

### Initial Response

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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Patricia Espinoza</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>8/31/2021</u>

# L48 Spill Volume Estimate Form

Received by OCD: 4/25/2022 9:17:36 AM		NAPP2124350596					Page 111 of 116		
Facility Name & Number:		NOCASTER 19 FEDERAL #4H BATTERY (LEASE #NM68820)							
Asset Area:		NDBE - DB EAST ROUTE							
Release Discovery Date & Time:		8/19/21 @ 11:00PM							
Release Type:		Oil							
Provide any known details about the event:		BLEW DIAPHRAM ON PRODUCTION KO OIL DUMP WHICH CAUSED THE DUMP VALVE NOT TO OPEN AND FILLED KO THEN FILLED SCRUBBER AND WENT OUT FLARE LINE. HEAT FROM FLARE FIRE SOFTENED THE WATER TRANSFER POLY LINE CAUSING IT TO RESULTING IN THE MIXTURE OF FLUIDS							
Was the release on pad or off-pad?		See reference table below							
Has it rained at least a half inch in the last 24 hours?		See reference table below							
Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	50.0	30.0	0.38	15.12%	8.344	1.262			
Rectangle B	30.0	4.0	0.75	15.12%	1.335	0.202			
Rectangle C	30.0	3.5	0.63	15.12%	0.973	0.147			
Rectangle D	30.0	3.0	0.50	15.12%	0.668	0.101			
Rectangle E	30.0	2.5	0.38	15.12%	0.417	0.063			
Rectangle F	30.0	2.0	0.25	15.12%	0.223	0.034			
Rectangle G	10.0	1.5	0.19	15.12%	0.042	0.006			
Rectangle H					0.000	0.000			
Rectangle I					0.000	0.000			
Rectangle J					0.000	0.000			
Total Volume Release:						1.815			

Released to Imaging: 8/1/2022 3:57:10 PM

Incident ID	NAPP2124350596
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	NAPP2124350596
District RP	
Facility ID	
Application ID	

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer  
Signature: *Charles R. Beauvais II* Date: 03/25/2022  
email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

**OCD Only**

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

Incident ID	NAPP2124350596
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer  
Signature: Charles R. Beauvais II Date: 03/25/2022  
email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

**OCD Only**

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

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

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

Incident ID	NAPP2124350596
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
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- ☒ 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.*

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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: Charles Beauvais Title: Senior Environmental Engineer  
Signature: Charles R. Beauvais II Date: 03/25/2022  
email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

**OCD Only**

Received by: Robert Hamlet Date: 8/1/2022

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

Signature: Robert Hamlet Date: 8/1/2022



**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 101129

**CONDITIONS**

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 101129
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	The Remediation Plan is Conditionally Approved. Samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. Floor confirmation samples should be delineated/excavated to meet closure criteria standards for site assessment/characterization/proven depth to water determination. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH. Confirmation samples should be collected every 200 ft2. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Also in the pasture area, 4 feet below ground surface; soil contamination limits revert back to Table 1 in the spill rule and need to meet closure criteria standards for proven depth to water determination. The work will need to occur in 90 days after the work plan has been approved.	8/1/2022