

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	NAPP2108246073
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

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

### Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

### Nature and Volume of Release

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

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

State of New Mexico  
Oil Conservation Division

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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>Adrian Bales</u>	Date: _____
email: _____	Telephone: _____
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

<b>Location:</b>	<b>Nash Deep East CTB</b>	
<b>Spill Date:</b>	<b>3/9/2021</b>	
<b>Area 1</b>		
Approximate Area =	263.00	sq. ft.
Average Saturation (or depth) of spill =	1.50	inches
Average Porosity Factor =	0.15	
<b>VOLUME OF LEAK</b>		
Total Produced Water =	5.88	bbls
<b>TOTAL VOLUME OF LEAK</b>		
Total Produced Water =	5.88	bbls
<b>TOTAL VOLUME RECOVERED</b>		
Total Produced Water =	5.00	bbls

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## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>50-110</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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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


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Oil Conservation Division

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Printed Name: Kyle Littrell Title: Environmental Manager

Signature:  Date: 5/30/2021

email: Kyle\_Littrell@exxonmobil.com Telephone: (432)-221-7331

**OCD Only**

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

Incident ID	NAPP2108246073
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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: Kyle Littrell Title: Environmental Manager  
Signature:  Date: 5/30/2021  
email: kyle\_littrell@exxonmobil.com Telephone: (432) 221 - 7331

**OCD Only**

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

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

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

Incident ID	NAPP2108246073
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Printed Name: Kyle Littrell Title: Environmental Manager  
Signature:  Date: 5/30/2021  
email: kyle\_littrell@exxonmobil.com Telephone: (432) 221 - 7331

**OCD Only**

Received by: Robert Hamlet Date: 9/9/2021

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

Signature:  Date: 9/9/2021



WSP USA

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

June 2, 2021

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

**RE:   Deferral Request  
      Nash Deep East  
      Incident Number NAPP2108246073  
      Eddy County, New Mexico**

To Whom it May Concern:

WSP USA Inc. (WSP), on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, excavation, and soil sampling activities at the Nash Deep East (Site) in Unit P, Section 18, Township 23 South, Range 30 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, soil sampling, and excavation activities was to address impacts to soil following a release of produced water at the Site. Based on the excavation activities and results of the soil sampling events, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Number NAPP2108246073.

## **RELEASE BACKGROUND**

On March 9, 2021, a pinhole leak on a 4-inch Victaulic tee connection, resulted in the release of 5.88 barrels (bbls) of produced water onto the surface of the well pad, around and beneath active production equipment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of produced water were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Form C-141 on March 23, 2021. The release was assigned Incident Number NAPP2108246073.

## **SITE CHARACTERIZATION**

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be between 50 feet and 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 321742103552601, located approximately 0.5 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 66 feet bgs and an unknown total depth. Ground surface





elevation at the groundwater well location is 3,862 feet above mean sea level (amsl), which is approximately 95 feet lower in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1. The referenced well records are included in Attachment 1. The closest continuously flowing or significant watercourse to the Site is an intermittent wash, located approximately 258 feet southwest of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetlands. 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 underlain by unstable geology (high 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): 100 mg/kg
- Chloride: 600 mg/kg

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

On April 8, 2021, WSP personnel were on Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. The release occurred in area of dense active production equipment. Visible surface staining was observed adjacent to and beneath the active production equipment. WSP personnel collected three preliminary assessment soil samples (SS01 through SS03) within the release extent at a depth of 0.5 feet bgs to assess the lateral extent of impacted soil. Samples SS01 and SS02 were collected in a walkway between active production equipment and pipelines as seen in the photographic log in Attachment 2. 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.

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 Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (USEPA) Method 8021B; TPH-gasoline range



organics (GRO), TPH-diesel range organics (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 SS03 indicated that chloride concentrations exceeded the Closure Criteria. Soil sample SS03 also exceeded the Closure Criteria for TPH. Based on the laboratory analytical results, excavation and delineation activities were warranted.

### **EXCAVATION AND DELINEATION SOIL SAMPLING ACTIVITIES**

On April 28, 2021, WSP personnel returned to the Site to oversee excavation and delineation activities as indicated by visual observations and laboratory analytical results for the preliminary soil samples. Excavation activities were completed in the areas of the release that were accessible with a hydrovacuum truck. Impacted soil was removed in the areas surrounding preliminary soil samples SS01 and SS02. Soil sample SS03 was located in an area that was inaccessible to excavate mechanically or otherwise, due to the presence of active production equipment and surface pipelines. XTO safety policy restricts soil disturbing activities to a 2-foot radius of any on-site production equipment. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation measured approximately 51 square feet in area and was completed to a depth of 2.5 feet bgs, resulting in approximately 5 cubic feet of soil being removed. Following removal of impacted soil to the extent possible, WSP collected one 5-point composite soil sample, FS01, from the excavation. The 5-point composite sample was collected by depositing five aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the sample by thoroughly mixing. Due to the small size of the excavation, the soil sample represented the floor and sidewalls of the excavation. The excavation soil sample was collected, handled, and analyzed as described above. The excavation extent and excavation sample location are depicted on Figure 3. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 2.

Potholes were advanced via track mounted backhoe at four locations around the release extent and production equipment to delineate the lateral extent of impacted soil left in place adjacent to and beneath active equipment, including the area represented by preliminary sample SS03. Potholes PH01 through PH04 were advanced to a depth of 2.5 feet bgs and discrete delineation soil samples (PH01/PH01A through PH04/PH04A) were collected from each pothole at depths of 1-foot and 2.5 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 potholes were logged on lithologic/soil sampling logs, which are included in Attachment 3. The delineation soil samples were handled and analyzed as described above. The pothole and delineation soil sample locations are depicted on Figure 4.



XTO backfilled the excavation once the confirmation soil sample analytical results were received and reviewed. The excavation was backfilled with locally purchased caliche and contoured to match site conditions. Photographic documentation was conducted following the completion of the backfill. A photographic log is included in Attachment 2.

## **ANALYTICAL RESULTS**

Laboratory analytical results for preliminary soil samples SS01 through SS03 indicated that chloride concentrations exceeded the Closure Criteria. Soil sample SS03 also exceeded the Closure Criteria for TPH.

Laboratory analytical results for excavation soil sample FS01, collected from the final excavation extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH04, collected outside of the release extent and surrounding production equipment, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. The laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 4.

## **DEFERRAL REQUEST**

A total of approximately 5 cubic yards of impacted soil was excavated from the Site; however, residual impacted soil was left in place immediately surrounding and beneath active production equipment for compliance with XTO safety policy regarding earth moving activities within 2 feet of active equipment. This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation near production equipment. This policy was enforced where impacted soil was identified within 2 feet of active production equipment.

The impacted soil remaining in place is delineated vertically by excavation soil sample FS01 and laterally by delineation soil samples from potholes PH01 through PH04. An estimated 40 cubic yards of impacted soil remains in place, assuming a maximum depth of 2.5 feet based on the excavation and delineation soil samples listed above, that were compliant with the Closure Criteria. The deferral request area is shown on the attached Figure 4.

XTO requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. The majority of the released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately surrounding and beneath active production equipment, and no saturated soil remains in-place. XTO requests deferral of final remediation for Incident Number NAPP2108246073.



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

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads "Kaleb Henry".

Kaleb Henry  
Assistant Consultant, Geologist

A handwritten signature in black ink that reads "Ashley L. Ager".

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

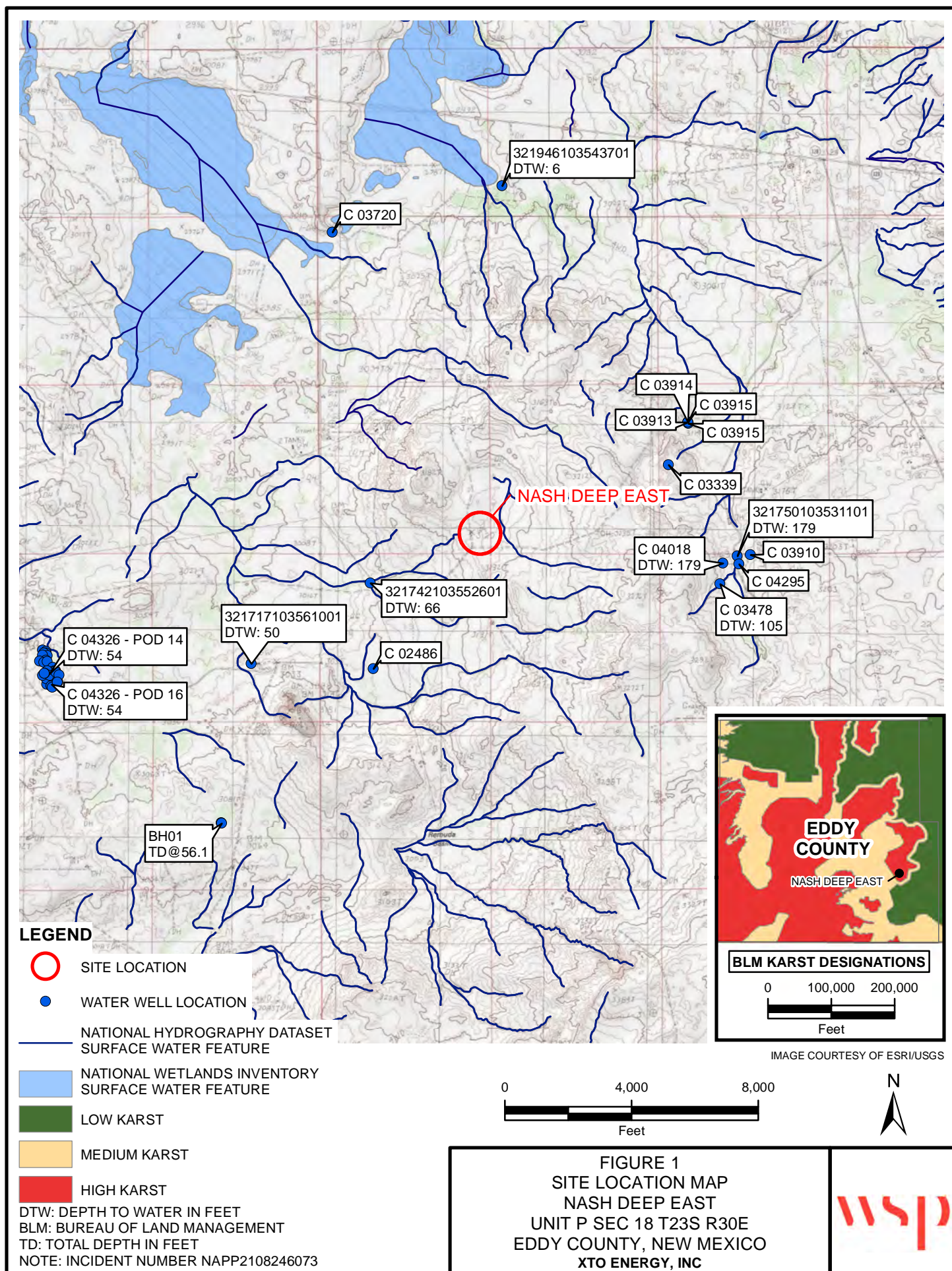
cc: Kyle Littrell, XTO  
Bureau of Land Management

Attachments:

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

FIGURES



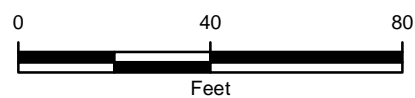




**LEGEND**

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

IMAGE COURTESY OF ESRI



NOTE: INCIDENT NUMBER NAPP2108246073  
 SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 2**  
**PRELIMINARY SOIL SAMPLE LOCATIONS**  
 NASH DEEP EAST  
 UNIT P SEC 18 T23S R30E  
 EDDY COUNTY, NEW MEXICO  
 XTO ENERGY, INC.



P:\XTO Energy\GIS\MXD\012921038\_NASH DEEP EAST\012921038\_FIG02\_PRELIMINARY\_2021.mxd

**LEGEND**



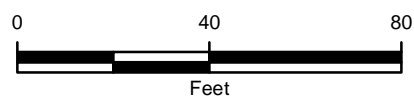
-  SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
-  EXCAVATION EXTENT

IMAGE COURTESY OF ESRI



NOTE: INCIDENT NUMBER NAPP2108246073  
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 3**  
**EXCAVATION SOIL SAMPLE LOCATIONS**  
NASH DEEP EAST  
UNIT P SEC 18 T23S R30E  
EDDY COUNTY, NEW MEXICO  
**XTO ENERGY, INC.**





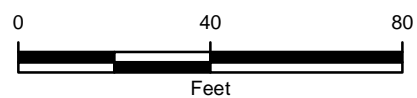
**LEGEND**

DELINEATION SOIL SAMPLE IN COMPLIANCE  
WITH APPLICABLE CLOSURE CRITERIA



DEFERRAL AREA

IMAGE COURTESY OF ESRI



NOTE: INCIDENT NUMBER NAPP2108246073  
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 4**  
**DELINEATION SOIL SAMPLE LOCATIONS**  
**NASH DEEP EAST**  
**UNIT P SEC 18 T23S R30E**  
**EDDY COUNTY, NEW MEXICO**  
**XTO ENERGY, INC.**



TABLES

Table 1

Soil Analytical Results  
Nash Deep East  
Incident Number NAPP2108246073  
XTO Energy, Inc.  
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Preliminary Samples										
SS01	04/08/2021	0.5	<0.00201	<0.00201	<50.0	84.2	<50.0	84.2	84.2	13,800
SS02	04/08/2021	0.5	<0.00200	<0.00200	<49.9	67.2	<49.9	67.2	67.2	13,000
SS03	04/08/2021	0.5	<0.00200	<0.00200	3,780	79.0	442	3,859	4,300	5,930
Excavation Samples										
FS01	04/28/2021	2.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	108
Delineation Samples										
PH01	04/28/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	15.2
PH01A	04/28/2021	2.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98
PH02	04/28/2021	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	17.9
PH02A	04/28/2021	2.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	<5.05
PH03	04/28/2021	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	137
PH03A	04/28/2021	2.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	53.3
PH04	04/28/2021	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	199
PH04A	04/28/2021	2.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	37.3

**Notes**

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

&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

Greyed data represents samples that were excavated

ATTACHMENT 1: REFERENCED WELL RECORD

**DESCRIPTION:**

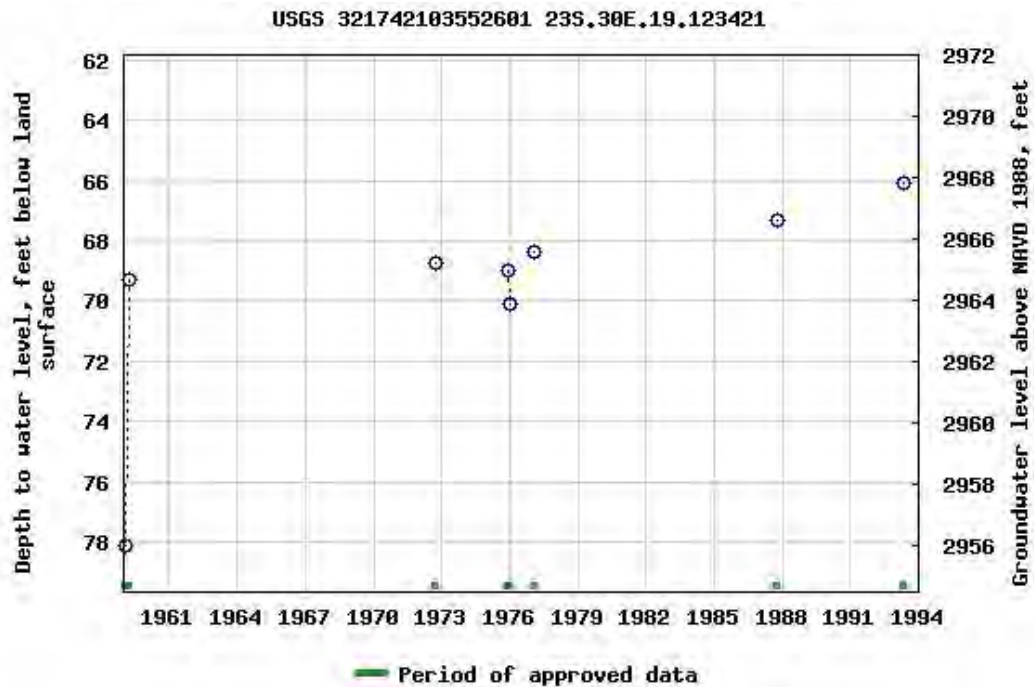
Latitude 32°17'42", Longitude 103°55'26" NAD27  
 Eddy County, New Mexico, Hydrologic Unit 13060011  
 Well depth: 100 feet  
 Land surface altitude: 3,034 feet above NAVD88.  
 Well completed in "Other aquifers" (N9999OTHER) national aquifer.  
 Well completed in "Rustler Formation" (312RSLR) local aquifer

**AVAILABLE DATA:**

Data Type	Begin Date	End Date	Count
<a href="#">Field groundwater-level measurements</a>	1959-02-06	1993-05-06	8
<a href="#">Field/Lab water-quality samples</a>	1972-09-20	1972-09-20	1
<a href="#">Revisions</a>	Loading...		

**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](#)





## New Mexico Office of the State Engineer

# Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C 03478	POD1	3	2	1	21	23S	30E	604638	3573670 
Driller License:		Driller Company:							
Driller Name:		JUSTIN MULLINS							
Drill Start Date:		06/07/2016		Drill Finish Date:		06/27/2016		Plug Date:	
Log File Date:		07/11/2016		PCW Rcv Date:				Source: Shallow	
Pump Type:				Pipe Discharge Size:				Estimated Yield: 5 GPM	
Casing Size:		6.00		Depth Well:		230 feet		Depth Water: 105 feet	
Water Bearing Stratifications:				Top	Bottom	Description			
				105	112	Shale/Mudstone/Siltstone			
Casing Perforations:				Top	Bottom				
				170	230				

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.

ATTACHMENT 2: PHOTOGRAPHIC LOG






## PHOTOGRAPHIC LOG

XTO Energy, Inc	Nash Deep East Eddy County, New Mexico	TE012921038
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Photo No.	Date	
1	April 8, 2021	
South facing view of release extent.		

Photo No.	Date	
2	April 28, 2021	
South facing view of excavation activities.		





## PHOTOGRAPHIC LOG

XTO Energy, Inc	Nash Deep East Eddy County, New Mexico	TE012921038
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Photo No.	Date	
3	April 28, 2021	
South facing view of excavation extent.		 A photograph showing a deep, narrow excavation trench in a dirt area. The trench is flanked by large industrial pipes and structures. A safety fence made of white plastic and orange flags is set up across the trench. The background shows more industrial equipment and a clear sky.


Photo No.	Date	
4	May 12, 2021	
South facing view of excavation extent following backfilling procedures.		 A photograph showing the same excavation area as in Photo 3, but now filled with dirt. The trench is no longer visible, and the ground is level. The industrial pipes and structures are still present, and the safety fence has been removed. The background shows more industrial equipment and a clear sky.

ATTACHMENT 3: LITHOLOGIC/SAMPLING LOG

 <b>WSP USA</b> 508 West Stevens Street Carlsbad, New Mexico 88220						BH or PH Name:		Date:	
						PH01		4/28/2021	
						Site Name: Nash Deep East			
						RP or Incident Number: NAPP2108246073			
						LTE Job Number: TE012921038			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: EL		Method: Backhoe	
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID					2.5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
m	<184.8	0.1	n	PH01	1'	0	SM	SAND, moist, brown, well graded, caliche gravel (0.1 - 3cm), fine - medium grain, no stain, no odor.	
m	<184.8	0.1	n	PH01A	2.5'	2			
								Total Depth: 2.5 feet bgs	

 <div>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</div>						BH or PH Name: PH02		Date: 4/28/2021	
						Site Name: Nash Deep East			
						RP or Incident Number: NAPP2108246073			
						LTE Job Number: TE012921038			
LITHOLOGIC / SOIL SAMPLING LOG						Logged By: EL		Method: Backhoe	
Lat/Long:			Field Screening: Chloride, PID			Hole Diameter:		Total Depth: 2.5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
m	<184.8	0.2	n	PH02	1'	0 1 2	SM	SAND, moist, brown, well graded, caliche gravel (0.1 - 3cm), fine - medium grain, no stain, no odor.	
m	<184.8	0.2	n	PH02A	2.5'				
								Total Depth: 2.5 feet bgs	

 <b>WSP USA</b> 508 West Stevens Street Carlsbad, New Mexico 88220						BH or PH Name:		Date:	
						PH03		4/28/2021	
						Site Name: Nash Deep East			
						RP or Incident Number: NAPP2108246073			
						LTE Job Number: TE012921038			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: EL		Method: Backhoe	
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID					2.5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
m	218.4	0.1	n	PH03	1'	0	SM	SAND, moist, brown, well graded, caliche gravel (0.1 - 3cm), fine - medium grain, no stain, no odor.	
m	<184.8	0.1	n	PH03A	2.5'	2			
Total Depth: 2.5 feet bgs									

 <b>WSP USA</b> 508 West Stevens Street Carlsbad, New Mexico 88220						BH or PH Name:		Date:	
						PH04		4/28/2021	
						Site Name: Nash Deep East			
						RP or Incident Number: NAPP2108246073			
						LTE Job Number: TE012921038			
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>						Logged By: EL		Method: Backhoe	
Lat/Long:			Field Screening:			Hole Diameter:		Total Depth:	
			Chloride, PID					2.5'	
Comments:									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
m	<184.8	0.2	n	PH04	1'	0	SM	SAND, moist, brown, well graded, caliche gravel (0.1 - 3cm), fine - medium grain, no stain, no odor.	
m	<184.8	0.2	n	PH04A	2.5'	2			
								Total Depth: 2.5 feet bgs	

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS



Environment Testing  
America

## ANALYTICAL REPORT

Job Number: 890-507-1

SDG Number: TE012921038

Job Description: Nash Deep East

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

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

Approved for release.  
Jessica Kramer  
Project Manager  
4/19/2021 11:26 AM

---

Jessica Kramer, Project Manager  
1211 W. Florida Ave, Midland, TX, 79701  
jessica.kramer@eurofinset.com  
04/19/2021

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

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

**Eurofins Xenco, Carlsbad**

1089 N Canal St., Carlsbad, NM 88220

Tel (575) 988-3199 Fax (575) 988-3199 [www.EurofinsUS.com](http://www.EurofinsUS.com)





## Client Sample Result Summary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

<b>Lab Sample ID:</b>	890-507-1	890-507-2	890-507-3
<b>Client Sample ID:</b>	SS01	SS02	SS03
<b>Depth:</b>	0.5	0.5	0.5
<b>Matrix:</b>	Solid	Solid	Solid
<b>Date Collected:</b>	04/08/2021 12:36	04/08/2021 12:38	04/08/2021 12:40

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

	<b>Prepared:</b>	04/12/2021 09:50	04/12/2021 09:50	04/12/2021 09:50
	<b>Analyzed:</b>	04/12/2021 15:34	04/12/2021 15:54	04/12/2021 16:15
<b>Analyte</b>	<b>Unit/RL:</b>	mg/Kg RL	mg/Kg RL	mg/Kg RL
Benzene		<0.00201 U 0.00201	<0.00200 U 0.00200	<0.00200 U 0.00200
		*1	*1	*1
Toluene		<0.00201 U 0.00201	<0.00200 U 0.00200	<0.00200 U 0.00200
Ethylbenzene		<0.00201 U 0.00201	<0.00200 U 0.00200	<0.00200 U 0.00200
m-Xylene & p-Xylene		<0.00402 U 0.00402	<0.00400 U 0.00400	<0.00401 U 0.00401
o-Xylene		<0.00201 U 0.00201	<0.00200 U 0.00200	<0.00200 U 0.00200
Xylenes, Total		<0.00402 U 0.00402	<0.00400 U 0.00400	<0.00401 U 0.00401
Total BTEX		<0.00201 U 0.00201	<0.00200 U 0.00200	<0.00200 U 0.00200

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

	<b>Prepared:</b>	04/09/2021 15:09	04/09/2021 15:09	04/09/2021 15:09
	<b>Analyzed:</b>	04/11/2021 06:04	04/11/2021 06:32	04/11/2021 06:53
<b>Analyte</b>	<b>Unit/RL:</b>	mg/Kg RL	mg/Kg RL	mg/Kg RL
Gasoline Range Organics (GRO)-C6-C10		<b>84.2</b> 50.0	<b>67.2</b> 49.9	<b>79.0</b> 49.8
Diesel Range Organics (Over C10-C28)		<50.0 U *1 50.0	<49.9 U *1 49.9	<b>3780 *1</b> 49.8
Oil Range Organics (Over C28-C36)		<50.0 U 50.0	<49.9 U 49.9	<b>442</b> 49.8
Total TPH		<b>84.2</b> 50.0	<b>67.2</b> 49.9	<b>4300</b> 49.8

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

	<b>Prepared:</b>			
	<b>Analyzed:</b>	04/18/2021 15:33	04/18/2021 15:48	04/18/2021 15:53
<b>Analyte</b>	<b>Unit/RL:</b>	mg/Kg RL	mg/Kg RL	mg/Kg RL
Chloride		<b>13800</b> 99.6	<b>13000</b> 101	<b>5930</b> 49.7



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-507-1

Laboratory Sample Delivery Group: TE012921038

Client Project/Site: Nash Deep East

For:

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

Attn: Dan Moir

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

Authorized for release by:  
4/19/2021 11:27:24 AM

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

#### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:

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

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

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

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Laboratory Job ID: 890-507-1  
SDG: TE012921038

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
U	Indicates the analyte was analyzed for but not detected.

## Glossary

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

## Case Narrative

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

---

### Job ID: 890-507-1

---

#### Laboratory: Eurofins Xenco, Carlsbad

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#### Narrative

#### Job Narrative 890-507-1

#### Receipt

The samples were received on 4/8/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

#### Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SSO1 (890-507-1), SS02 (890-507-2) and SS03 (890-507-3).

#### GC VOA

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

#### GC Semi VOA

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-1597 and analytical batch 880-1612 recovered outside control limits for the following analytes: < Diesel Range Organics (Over C10-C28)>.

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

#### HPLC/IC

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

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

Client Sample ID: SSO1

Lab Sample ID: 890-507-1

Date Collected: 04/08/21 12:36

Matrix: Solid

Date Received: 04/08/21 16:00

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/12/21 09:50	04/12/21 15:34	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		04/12/21 09:50	04/12/21 15:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	04/12/21 09:50	04/12/21 15:34	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/12/21 09:50	04/12/21 15:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	84.2		50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1
Total TPH	84.2		50.0	mg/Kg		04/09/21 15:09	04/11/21 06:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	04/09/21 15:09	04/11/21 06:04	1
o-Terphenyl	86		70 - 130	04/09/21 15:09	04/11/21 06:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13800		99.6	mg/Kg			04/18/21 15:33	20

Client Sample ID: SS02

Lab Sample ID: 890-507-2

Date Collected: 04/08/21 12:38

Matrix: Solid

Date Received: 04/08/21 16:00

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:54	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	04/12/21 09:50	04/12/21 15:54	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/12/21 09:50	04/12/21 15:54	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

Client Sample ID: SS02

Lab Sample ID: 890-507-2

Date Collected: 04/08/21 12:38

Matrix: Solid

Date Received: 04/08/21 16:00

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	67.2		49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1
Total TPH	67.2		49.9	mg/Kg		04/09/21 15:09	04/11/21 06:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	04/09/21 15:09	04/11/21 06:32	1
o-Terphenyl	88		70 - 130	04/09/21 15:09	04/11/21 06:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13000		101	mg/Kg			04/18/21 15:48	20

Client Sample ID: SS03

Lab Sample ID: 890-507-3

Date Collected: 04/08/21 12:40

Matrix: Solid

Date Received: 04/08/21 16:00

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		04/12/21 09:50	04/12/21 16:15	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	04/12/21 09:50	04/12/21 16:15	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/12/21 09:50	04/12/21 16:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	79.0		49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1
Diesel Range Organics (Over C10-C28)	3780	*1	49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1
Oil Range Organics (Over C28-C36)	442		49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1
Total TPH	4300		49.8	mg/Kg		04/09/21 15:09	04/11/21 06:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130	04/09/21 15:09	04/11/21 06:53	1
o-Terphenyl	80		70 - 130	04/09/21 15:09	04/11/21 06:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5930		49.7	mg/Kg			04/18/21 15:53	10

Eurofins Xenco, Carlsbad

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-507-1	SSO1	123	98
890-507-1 MS	SSO1	127	109
890-507-1 MSD	SSO1	126	111
890-507-2	SS02	114	100
890-507-3	SS03	132 S1+	94
LCS 880-1645/1-A	Lab Control Sample	140 S1+	106
LCSD 880-1645/2-A	Lab Control Sample Dup	115	104
MB 880-1645/5-A	Method Blank	98	98
<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)
890-507-1	SSO1	86	86
890-507-2	SS02	96	88
890-507-3	SS03	80	80
LCS 880-1597/2-A	Lab Control Sample	96	90
LCSD 880-1597/3-A	Lab Control Sample Dup	100	93
MB 880-1597/1-A	Method Blank	107	109
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			



## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

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

Lab Sample ID: MB 880-1645/5-A

Matrix: Solid

Analysis Batch: 1640

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1645

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/12/21 09:50	04/12/21 15:13	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		04/12/21 09:50	04/12/21 15:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	04/12/21 09:50	04/12/21 15:13	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/12/21 09:50	04/12/21 15:13	1

Lab Sample ID: LCS 880-1645/1-A

Matrix: Solid

Analysis Batch: 1640

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1645

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1236		mg/Kg		124	70 - 130
Toluene	0.100	0.08929		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.08838		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1707		mg/Kg		85	70 - 130
o-Xylene	0.100	0.08714		mg/Kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-1645/2-A

Matrix: Solid

Analysis Batch: 1640

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1645

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08050	*1	mg/Kg		80	70 - 130	42	35
Toluene	0.100	0.08131		mg/Kg		81	70 - 130	9	35
Ethylbenzene	0.100	0.09256		mg/Kg		93	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1873		mg/Kg		94	70 - 130	9	35
o-Xylene	0.100	0.09958		mg/Kg		100	70 - 130	13	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-507-1 MS

Matrix: Solid

Analysis Batch: 1640

Client Sample ID: SSO1

Prep Type: Total/NA

Prep Batch: 1645

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00201	U *1	0.0996	0.1011		mg/Kg		102	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

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

Lab Sample ID: 890-507-1 MS

Matrix: Solid

Analysis Batch: 1640

Client Sample ID: SSO1

Prep Type: Total/NA

Prep Batch: 1645

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00201	U	0.0996	0.09984		mg/Kg		100	70 - 130
Ethylbenzene	<0.00201	U	0.0996	0.1060		mg/Kg		106	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2184		mg/Kg		110	70 - 130
o-Xylene	<0.00201	U	0.0996	0.1227		mg/Kg		123	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	127		70 - 130						
1,4-Difluorobenzene (Surr)	109		70 - 130						

Lab Sample ID: 890-507-1 MSD

Matrix: Solid

Analysis Batch: 1640

Client Sample ID: SSO1

Prep Type: Total/NA

Prep Batch: 1645

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U *1	0.0996	0.1036		mg/Kg		104	70 - 130	2	35
Toluene	<0.00201	U	0.0996	0.1007		mg/Kg		101	70 - 130	1	35
Ethylbenzene	<0.00201	U	0.0996	0.1050		mg/Kg		105	70 - 130	1	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2161		mg/Kg		108	70 - 130	1	35
o-Xylene	<0.00201	U	0.0996	0.1208		mg/Kg		121	70 - 130	2	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	126		70 - 130								
1,4-Difluorobenzene (Surr)	111		70 - 130								

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

Lab Sample ID: MB 880-1597/1-A

Matrix: Solid

Analysis Batch: 1612

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 1597

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		04/09/21 15:09	04/10/21 21:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/09/21 15:09	04/10/21 21:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/09/21 15:09	04/10/21 21:36	1
Total TPH	<50.0	U	50.0	mg/Kg		04/09/21 15:09	04/10/21 21:36	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			04/09/21 15:09	04/10/21 21:36	1
o-Terphenyl	109		70 - 130			04/09/21 15:09	04/10/21 21:36	1

Lab Sample ID: LCS 880-1597/2-A

Matrix: Solid

Analysis Batch: 1612

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1107		mg/Kg		111	70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

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

Lab Sample ID: LCS 880-1597/2-A

Matrix: Solid

Analysis Batch: 1612

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 1597

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	933.6		mg/Kg		93	70 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	96		70 - 130								
o-Terphenyl	90		70 - 130								

Lab Sample ID: LCSD 880-1597/3-A

Matrix: Solid

Analysis Batch: 1612

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 1597

Top Data: 100%										
Analyte			Spike	LCSD	LCSD	Unit	D	%Rec.	%Rec.	RPD
			Added	Result	Qualifier			Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1249		mg/Kg		125	70 - 130	12
Diesel Range Organics (Over C10-C28)			1000	1172	*1	mg/Kg		117	70 - 130	23
Bottom Data: 100%										
Surrogate	LCSD		Limits							
	%Recovery	Qualifier								
1-Chlorooctane	100		70 - 130							
o-Terphenyl	93		70 - 130							

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-1888/1-A

Matrix: Solid

Analysis Batch: 1950

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			04/18/21 14:06	1

Lab Sample ID: LCS 880-1888/2-A

Matrix: Solid

Analysis Batch: 1950

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	264.8		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-1888/3-A

Matrix: Solid

Analysis Batch: 1950

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	265.1		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 890-507-1 MS

Matrix: Solid

Analysis Batch: 1950

Client Sample ID: SSO1

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	13800		249	21590	4	mg/Kg		3119	90 - 110

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-507-1 MSD							Client Sample ID: SSO1					
Matrix: Solid							Prep Type: Soluble					
Analysis Batch: 1950												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	13800		249	21380	4	mg/Kg		3036	90 - 110	1	20	

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

## GC VOA

## Analysis Batch: 1640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Total/NA	Solid	8021B	1645
890-507-2	SS02	Total/NA	Solid	8021B	1645
890-507-3	SS03	Total/NA	Solid	8021B	1645
MB 880-1645/5-A	Method Blank	Total/NA	Solid	8021B	1645
LCS 880-1645/1-A	Lab Control Sample	Total/NA	Solid	8021B	1645
LCSD 880-1645/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	1645
890-507-1 MS	SSO1	Total/NA	Solid	8021B	1645
890-507-1 MSD	SSO1	Total/NA	Solid	8021B	1645

## Prep Batch: 1645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Total/NA	Solid	5035	
890-507-2	SS02	Total/NA	Solid	5035	
890-507-3	SS03	Total/NA	Solid	5035	
MB 880-1645/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-1645/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-1645/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-507-1 MS	SSO1	Total/NA	Solid	5035	
890-507-1 MSD	SSO1	Total/NA	Solid	5035	

## GC Semi VOA

## Prep Batch: 1597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Total/NA	Solid	8015NM Prep	
890-507-2	SS02	Total/NA	Solid	8015NM Prep	
890-507-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-1597/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-1597/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-1597/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 1612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Total/NA	Solid	8015B NM	1597
890-507-2	SS02	Total/NA	Solid	8015B NM	1597
890-507-3	SS03	Total/NA	Solid	8015B NM	1597
MB 880-1597/1-A	Method Blank	Total/NA	Solid	8015B NM	1597
LCS 880-1597/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	1597
LCSD 880-1597/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	1597

## HPLC/IC

## Leach Batch: 1888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Soluble	Solid	DI Leach	
890-507-2	SS02	Soluble	Solid	DI Leach	
890-507-3	SS03	Soluble	Solid	DI Leach	
MB 880-1888/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-1888/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-1888/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-507-1 MS	SSO1	Soluble	Solid	DI Leach	
890-507-1 MSD	SSO1	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

## HPLC/IC

## Analysis Batch: 1950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-507-1	SSO1	Soluble	Solid	300.0	1888
890-507-2	SS02	Soluble	Solid	300.0	1888
890-507-3	SS03	Soluble	Solid	300.0	1888
MB 880-1888/1-A	Method Blank	Soluble	Solid	300.0	1888
LCS 880-1888/2-A	Lab Control Sample	Soluble	Solid	300.0	1888
LCSD 880-1888/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	1888
890-507-1 MS	SSO1	Soluble	Solid	300.0	1888
890-507-1 MSD	SSO1	Soluble	Solid	300.0	1888



## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

Client Sample ID: SSO1

Lab Sample ID: 890-507-1

Date Collected: 04/08/21 12:36

Matrix: Solid

Date Received: 04/08/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1645	04/12/21 09:50	KL	XM
Total/NA	Analysis	8021B		1	1640	04/12/21 15:34	KL	XM
Total/NA	Prep	8015NM Prep			1597	04/09/21 15:09	DM	XM
Total/NA	Analysis	8015B NM		1	1612	04/11/21 06:04	AJ	XM
Soluble	Leach	DI Leach			1888	04/16/21 11:44	SC	XM
Soluble	Analysis	300.0		20	1950	04/18/21 15:33	WP	XM

Client Sample ID: SS02

Lab Sample ID: 890-507-2

Date Collected: 04/08/21 12:38

Matrix: Solid

Date Received: 04/08/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1645	04/12/21 09:50	KL	XM
Total/NA	Analysis	8021B		1	1640	04/12/21 15:54	KL	XM
Total/NA	Prep	8015NM Prep			1597	04/09/21 15:09	DM	XM
Total/NA	Analysis	8015B NM		1	1612	04/11/21 06:32	AJ	XM
Soluble	Leach	DI Leach			1888	04/16/21 11:44	SC	XM
Soluble	Analysis	300.0		20	1950	04/18/21 15:48	WP	XM

Client Sample ID: SS03

Lab Sample ID: 890-507-3

Date Collected: 04/08/21 12:40

Matrix: Solid

Date Received: 04/08/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			1645	04/12/21 09:50	KL	XM
Total/NA	Analysis	8021B		1	1640	04/12/21 16:15	KL	XM
Total/NA	Prep	8015NM Prep			1597	04/09/21 15:09	DM	XM
Total/NA	Analysis	8015B NM		1	1612	04/11/21 06:53	AJ	XM
Soluble	Leach	DI Leach			1888	04/16/21 11:44	SC	XM
Soluble	Analysis	300.0		10	1950	04/18/21 15:53	WP	XM

## Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

Laboratory: Eurofins Xenco, Midland

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

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

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

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

## Method Summary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

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

**Protocol References:**

ASTM = ASTM International

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

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

**Laboratory References:**

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

Sample Summary

Client: WSP USA Inc.  
Project/Site: Nash Deep East

Job ID: 890-507-1  
SDG: TE012921038

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-507-1	SSO1	Solid	04/08/21 12:36	04/08/21 16:00	- 0.5
890-507-2	SS02	Solid	04/08/21 12:38	04/08/21 16:00	- 0.5
890-507-3	SS03	Solid	04/08/21 12:40	04/08/21 16:00	- 0.5

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Phoenix, AZ (602-392-7550) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-1111  
Hobbs, NM (575-392-7550)

## Chain of Custody

**Work Order No:**

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

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

Project Name:	Nash Deep East	Turn Around	ANALYSIS REQUEST				Work Order Notes
Project Number:	TE012921038	Routine					Cost Center 1056641001
P.O. Number:		Rush:					Incident # NAPP2108246073
Sampler's Name:	Elliot Lee	Due Date:					

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Loc:	Yes	No
Temperature (°C):	4.8/4.6	Thermometer ID					
Received intact:	Yes	No	CMA-007				
Cooler Custody Seals:	Yes	No	Correction Factor: -0.2				
Sample Custody Seals:	Yes	No	Total Containers:				

Number of Containers

PA 8015)

EPA 0=8021)

le (EPA 300.0)

890-507 Chain of Custody

7AT starts the day received by the lab, if received by 4:30pm

[illegible]

890-507 Chain of Custody

<b>Total</b>	<b>200.7 / 6010</b>	<b>200.8 / 6020:</b>	<b>8RCRA</b>	<b>13PPM</b>	<b>Texas 11</b>	<b>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</b>
<b>Circle Method(s) and Metal(s) to be analyzed</b>	<b>TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U</b>					<b>1631 / 245.1 / 7470 / 7471 : Hg</b>

(Notice: Signature of this document and release/information of samples ~~on behalf of~~ without 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 \$8 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

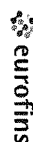
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Walt</i>	<i>Joe Cobb</i>	4:8:21/600	2		
3			4		
5			6		

Revised Date 05/11/18 Rev. 2018

Eurofins Xenco, Carlsbad

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

## Chain of Custody Record



## Environment Testing America

[illegible]



## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-507-1

SDG Number: TE012921038

Login Number: 507

List Number: 1

Creator: Ordonez, Gabby

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: 890-507-1

SDG Number: TE012921038

Login Number: 507

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 04/09/21 02:46 PM

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



Environment Testing  
America

## ANALYTICAL REPORT

Job Number: 890-596-1

SDG Number: TE012921038

Job Description: Nash Depp East

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

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

Approved for release.  
Jessica Kramer  
Project Manager  
5/5/2021 9:12 AM

---

Jessica Kramer, Project Manager  
1211 W. Florida Ave, Midland, TX, 79701  
jessica.kramer@eurofinset.com  
05/05/2021

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

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

**Eurofins Xenco, Carlsbad**

1089 N Canal St., Carlsbad, NM 88220

Tel (575) 988-3199 Fax (575) 988-3199 [www.EurofinsUS.com](http://www.EurofinsUS.com)



## Client Sample Result Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

<b>Lab Sample ID:</b> 890-596-1	890-596-2	890-596-3	890-596-4	890-596-5
<b>Client Sample ID:</b> FS01	PH01	PH01A	PH02	PH02A
<b>Depth:</b> 2.5	1	2.5	1	2.5
<b>Matrix:</b> Solid	Solid	Solid	Solid	Solid
<b>Date Collected:</b> 04/28/2021 13:23	04/28/2021 14:07	04/28/2021 14:13	04/28/2021 14:20	04/28/2021 14:23

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

<b>Prepared:</b> 04/29/2021 16:15	04/30/2021 13:50	04/30/2021 13:50	04/30/2021 13:50	04/30/2021 13:50
<b>Analyzed:</b> 04/30/2021 09:01	05/01/2021 03:29	05/01/2021 03:49	05/01/2021 04:10	05/01/2021 04:30
<b>Analyte</b>	<b>Unit/RL:</b> mg/Kg RL	mg/Kg RL	mg/Kg RL	mg/Kg RL
Benzene	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00199 U 0.00199
Toluene	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00199 U 0.00199
Ethylbenzene	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00199 U 0.00199
m-Xylene & p-Xylene	<0.00399 U 0.00399	<0.00399 U 0.00399	<0.00399 U 0.00399	<0.00398 U 0.00398
o-Xylene	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00200 U 0.00200	<0.00199 U 0.00199
Xylenes, Total	<0.00399 U 0.00399	<0.00399 U 0.00399	<0.00399 U 0.00399	<0.00398 U 0.00398
Total BTEX	<0.00399 U 0.00399	<0.00399 U 0.00399	<0.00399 U 0.00399	<0.00398 U 0.00398

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

<b>Prepared:</b> 04/30/2021 14:09	04/30/2021 14:09	04/30/2021 10:36	04/30/2021 08:50	04/30/2021 08:50
<b>Analyzed:</b> 05/02/2021 20:05	05/02/2021 20:26	05/02/2021 20:26	05/03/2021 01:43	05/03/2021 02:03
<b>Analyte</b>	<b>Unit/RL:</b> mg/Kg RL	mg/Kg RL	mg/Kg RL	mg/Kg RL
Gasoline Range Organics (GRO)-C6-C10	<49.9 U 49.9	<50.0 U 50.0	<50.0 U 50.0	<50.0 U 50.0
Diesel Range Organics (Over C10-C28)	<49.9 U 49.9	<50.0 U 50.0	<50.0 U 50.0	<50.0 U 50.0
Oil Range Organics (Over C28-C36)	<49.9 U 49.9	<50.0 U 50.0	<50.0 U 50.0	<50.0 U 50.0
Total TPH	<49.9 U 49.9	<50.0 U 50.0	<50.0 U 50.0	<50.0 U 50.0

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

<b>Prepared:</b>				
<b>Analyzed:</b> 05/04/2021 17:57	05/04/2021 18:02	05/04/2021 18:07	05/04/2021 18:23	05/04/2021 18:28
<b>Analyte</b>	<b>Unit/RL:</b> mg/Kg RL	mg/Kg RL	mg/Kg RL	mg/Kg RL
Chloride	108 5.05	15.2 5.05	<4.98 U 4.98	17.9 5.04

## Client Sample Result Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

<b>Lab Sample ID:</b>	890-596-6	890-596-7	890-596-8	890-596-9
<b>Client Sample ID:</b>	PH03	PH03A	PH04	PH04A
<b>Depth:</b>	1	2.5	1	2.5
<b>Matrix:</b>	Solid	Solid	Solid	Solid
<b>Date Collected:</b>	04/28/2021 14:30	04/28/2021 14:34	04/28/2021 14:39	04/28/2021 14:42

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

<b>Prepared:</b>	04/30/2021 10:02	04/30/2021 10:02	04/30/2021 10:02	04/30/2021 10:02					
<b>Analyzed:</b>	04/30/2021 19:26	04/30/2021 19:46	04/30/2021 20:06	04/30/2021 20:27					
<b>Analyte</b>	<b>Unit/RL:</b>	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Benzene	<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199	
Toluene	<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199	
Ethylbenzene	<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199	
m-Xylene & p-Xylene	<0.00402 U	0.00402	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398	
o-Xylene	<0.00201 U	0.00201	<0.00201 U	0.00201	<0.00200 U	0.00200	<0.00199 U	0.00199	
Xylenes, Total	<0.00402 U	0.00402	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398	
Total BTEX	<0.00402 U	0.00402	<0.00402 U	0.00402	<0.00399 U	0.00399	<0.00398 U	0.00398	

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

<b>Prepared:</b>	04/30/2021 08:50	04/30/2021 08:50	04/30/2021 08:50	04/30/2021 08:50					
<b>Analyzed:</b>	05/03/2021 02:46	05/03/2021 03:07	05/03/2021 03:28	05/03/2021 03:48					
<b>Analyte</b>	<b>Unit/RL:</b>	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Gasoline Range Organics (GRO)-C6-C10	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	
Diesel Range Organics (Over C10-C28)	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	
Oil Range Organics (Over C28-C36)	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	
Total TPH	<50.0 U	50.0	<49.9 U	49.9	<49.9 U	49.9	<50.0 U	50.0	

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

<b>Prepared:</b>									
<b>Analyzed:</b>	05/04/2021 18:44	05/04/2021 18:49	05/04/2021 18:54	05/04/2021 18:59					
<b>Analyte</b>	<b>Unit/RL:</b>	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL	mg/Kg	RL
Chloride	<b>137</b>	4.99	<b>53.3</b>	4.97	<b>199</b>	4.95	<b>37.3</b>	4.95	



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 890-596-1

Laboratory Sample Delivery Group: TE012921038

Client Project/Site: Nash Depp East

For:

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

Attn: Dan Moir

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

Authorized for release by:  
5/5/2021 9:12:24 AM

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

#### LINKS

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

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



Client: WSP USA Inc.  
Project/Site: Nash Depp East

Laboratory Job ID: 890-596-1  
SDG: TE012921038

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

## Case Narrative

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

### Job ID: 890-596-1

#### Laboratory: Eurofins Xenco, Carlsbad

#### Narrative

#### Job Narrative 890-596-1

#### Receipt

The samples were received on 4/29/2021 9:08 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

#### Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-596-1), PH01 (890-596-2), PH01A (890-596-3), PH02 (890-596-4), PH02A (890-596-5), PH03 (890-596-6), PH03A (890-596-7), PH04 (890-596-8) and PH04A (890-596-9).

#### GC VOA

Method 8021B: Internal standard responses were outside of acceptance limits for the following sample: FS01 (890-596-1). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following samples were outside control limits: PH01 (890-596-2), PH01A (890-596-3), PH02 (890-596-4) and PH02A (890-596-5). 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: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: FS01

Lab Sample ID: 890-596-1

Date Collected: 04/28/21 13:23

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/29/21 16:15	04/30/21 09:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/29/21 16:15	04/30/21 09:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/29/21 16:15	04/30/21 09:01	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/29/21 16:15	04/30/21 09:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/29/21 16:15	04/30/21 09:01	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/29/21 16:15	04/30/21 09:01	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/29/21 16:15	04/30/21 09:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130	04/29/21 16:15	04/30/21 09:01	1
1,4-Difluorobenzene (Surr)	85		70 - 130	04/29/21 16:15	04/30/21 09:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/30/21 14:09	05/02/21 20:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/30/21 14:09	05/02/21 20:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 14:09	05/02/21 20:05	1
Total TPH	<49.9	U	49.9	mg/Kg		04/30/21 14:09	05/02/21 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	04/30/21 14:09	05/02/21 20:05	1
o-Terphenyl	120		70 - 130	04/30/21 14:09	05/02/21 20:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	108		5.05	mg/Kg			05/04/21 17:57	1

Client Sample ID: PH01

Lab Sample ID: 890-596-2

Date Collected: 04/28/21 14:07

Matrix: Solid

Date Received: 04/29/21 09:08

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		04/30/21 13:50	05/01/21 03:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:29	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	04/30/21 13:50	05/01/21 03:29	1
1,4-Difluorobenzene (Surr)	99		70 - 130	04/30/21 13:50	05/01/21 03:29	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: PH01

Lab Sample ID: 890-596-2

Date Collected: 04/28/21 14:07

Matrix: Solid

Date Received: 04/29/21 09:08

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		04/30/21 14:09	05/02/21 20:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 20:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 20:26	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	04/30/21 14:09	05/02/21 20:26	1
o-Terphenyl	115		70 - 130	04/30/21 14:09	05/02/21 20:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.2		5.05	mg/Kg			05/04/21 18:02	1

Client Sample ID: PH01A

Lab Sample ID: 890-596-3

Date Collected: 04/28/21 14:13

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:49	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/30/21 13:50	05/01/21 03:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	04/30/21 13:50	05/01/21 03:49	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/30/21 13:50	05/01/21 03:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	04/30/21 10:36	05/02/21 20:26	1
o-Terphenyl	104		70 - 130	04/30/21 10:36	05/02/21 20:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98	mg/Kg			05/04/21 18:07	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: PH02

Lab Sample ID: 890-596-4

Date Collected: 04/28/21 14:20

Matrix: Solid

Date Received: 04/29/21 09:08

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		04/30/21 13:50	05/01/21 04:10	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/30/21 13:50	05/01/21 04:10	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		04/30/21 13:50	05/01/21 04:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	04/30/21 13:50	05/01/21 04:10	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/30/21 13:50	05/01/21 04:10	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		04/30/21 08:50	05/03/21 01:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 01:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 01:43	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/30/21 08:50	05/03/21 01:43	1
o-Terphenyl	109		70 - 130	04/30/21 08:50	05/03/21 01:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.9		5.04	mg/Kg			05/04/21 18:23	1

Client Sample ID: PH02A

Lab Sample ID: 890-596-5

Date Collected: 04/28/21 14:23

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Toluene	<0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		04/30/21 13:50	05/01/21 04:30	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		04/30/21 13:50	05/01/21 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	04/30/21 13:50	05/01/21 04:30	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/30/21 13:50	05/01/21 04:30	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: PH02A

Lab Sample ID: 890-596-5

Date Collected: 04/28/21 14:23

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 2.5

## 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		04/30/21 08:50	05/03/21 02:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:03	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	04/30/21 08:50	05/03/21 02:03	1
o-Terphenyl	95		70 - 130	04/30/21 08:50	05/03/21 02:03	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.05	U	5.05	mg/Kg			05/04/21 18:28	1

Client Sample ID: PH03

Lab Sample ID: 890-596-6

Date Collected: 04/28/21 14:30

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:26	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/30/21 10:02	04/30/21 19:26	1
1,4-Difluorobenzene (Surr)	106		70 - 130	04/30/21 10:02	04/30/21 19:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 02:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	04/30/21 08:50	05/03/21 02:46	1
o-Terphenyl	108		70 - 130	04/30/21 08:50	05/03/21 02:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	137		4.99	mg/Kg			05/04/21 18:44	1

Eurofins Xenco, Carlsbad

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: PH03A

Lab Sample ID: 890-596-7

Date Collected: 04/28/21 14:34

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:46	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		04/30/21 10:02	04/30/21 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	04/30/21 10:02	04/30/21 19:46	1
1,4-Difluorobenzene (Surr)	109		70 - 130	04/30/21 10:02	04/30/21 19:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1
Total TPH	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	04/30/21 08:50	05/03/21 03:07	1
o-Terphenyl	109		70 - 130	04/30/21 08:50	05/03/21 03:07	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	53.3		4.97	mg/Kg			05/04/21 18:49	1

Client Sample ID: PH04

Lab Sample ID: 890-596-8

Date Collected: 04/28/21 14:39

Matrix: Solid

Date Received: 04/29/21 09:08

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		04/30/21 10:02	04/30/21 20:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/30/21 10:02	04/30/21 20:06	1
Total BTEX	<0.00399	U	0.00399	mg/Kg		04/30/21 10:02	04/30/21 20:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130	04/30/21 10:02	04/30/21 20:06	1
1,4-Difluorobenzene (Surr)	108		70 - 130	04/30/21 10:02	04/30/21 20:06	1

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## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: PH04

Lab Sample ID: 890-596-8

Date Collected: 04/28/21 14:39

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1
Total TPH	<49.9	U	49.9	mg/Kg		04/30/21 08:50	05/03/21 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	04/30/21 08:50	05/03/21 03:28	1
o-Terphenyl	117		70 - 130	04/30/21 08:50	05/03/21 03:28	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	199		4.95	mg/Kg			05/04/21 18:54	1

Client Sample ID: PH04A

Lab Sample ID: 890-596-9

Date Collected: 04/28/21 14:42

Matrix: Solid

Date Received: 04/29/21 09:08

Sample Depth: - 2.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/30/21 10:02	04/30/21 20:27	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		04/30/21 10:02	04/30/21 20:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	04/30/21 10:02	04/30/21 20:27	1
1,4-Difluorobenzene (Surr)	109		70 - 130	04/30/21 10:02	04/30/21 20:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/03/21 03:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	04/30/21 08:50	05/03/21 03:48	1
o-Terphenyl	100		70 - 130	04/30/21 08:50	05/03/21 03:48	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.3		4.95	mg/Kg			05/04/21 18:59	1

Eurofins Xenco, Carlsbad

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-596-1	FS01	89	85
890-596-2	PH01	132 S1+	99
890-596-3	PH01A	82	98
890-596-4	PH02	113	98
890-596-5	PH02A	115	98
890-596-6	PH03	106	106
890-596-7	PH03A	110	109
890-596-8	PH04	108	108
890-596-9	PH04A	109	109
LCS 880-2496/1-A	Lab Control Sample	109	112
LCS 880-2531/1-A	Lab Control Sample	100	105
LCS 880-2540/1-A	Lab Control Sample	98	106
LCSD 880-2496/2-A	Lab Control Sample Dup	117	110
LCSD 880-2531/2-A	Lab Control Sample Dup	101	103
LCSD 880-2540/2-A	Lab Control Sample Dup	101	104
MB 880-2450/5-A	Method Blank	77	85
MB 880-2496/5-A	Method Blank	72	90
MB 880-2531/5-A	Method Blank	102	103
MB 880-2540/5-A	Method Blank	102	100
<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)
890-596-1	FS01	104	120
890-596-2	PH01	104	115
890-596-3	PH01A	110	104
890-596-4	PH02	114	109
890-596-5	PH02A	95	95
890-596-6	PH03	112	108
890-596-7	PH03A	110	109
890-596-8	PH04	119	117
890-596-9	PH04A	98	100
LCS 880-2518/2-A	Lab Control Sample	113	101
LCS 880-2539/2-A	Lab Control Sample	96	92
LCS 880-2551/2-A	Lab Control Sample	104	104
LCSD 880-2518/3-A	Lab Control Sample Dup	112	103
LCSD 880-2539/3-A	Lab Control Sample Dup	96	91
LCSD 880-2551/3-A	Lab Control Sample Dup	98	101
MB 880-2518/1-A	Method Blank	101	103
MB 880-2539/1-A	Method Blank	101	108
MB 880-2551/1-A	Method Blank	99	114
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East  
OTPH = o-Terphenyl

Job ID: 890-596-1  
SDG: TE012921038

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

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Lab Sample ID: MB 880-2450/5-A

Matrix: Solid

Analysis Batch: 2447

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2450

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/28/21 13:23	04/29/21 11:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/28/21 13:23	04/29/21 11:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/28/21 13:23	04/29/21 11:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/28/21 13:23	04/29/21 11:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/28/21 13:23	04/29/21 11:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/28/21 13:23	04/29/21 11:43	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/28/21 13:23	04/29/21 11:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	77		70 - 130	04/28/21 13:23	04/29/21 11:43	1
1,4-Difluorobenzene (Surr)	85		70 - 130	04/28/21 13:23	04/29/21 11:43	1

Lab Sample ID: MB 880-2496/5-A

Matrix: Solid

Analysis Batch: 2447

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2496

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/29/21 12:40	04/30/21 00:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/29/21 12:40	04/30/21 00:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/29/21 12:40	04/30/21 00:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/29/21 12:40	04/30/21 00:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/29/21 12:40	04/30/21 00:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/29/21 12:40	04/30/21 00:56	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/29/21 12:40	04/30/21 00:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	72		70 - 130	04/29/21 12:40	04/30/21 00:56	1
1,4-Difluorobenzene (Surr)	90		70 - 130	04/29/21 12:40	04/30/21 00:56	1

Lab Sample ID: LCS 880-2496/1-A

Matrix: Solid

Analysis Batch: 2447

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1076		mg/Kg		108	70 - 130
Toluene	0.100	0.1154		mg/Kg		115	70 - 130
Ethylbenzene	0.100	0.1127		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.2025		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1140		mg/Kg		114	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Lab Sample ID: LCSD 880-2496/2-A

Matrix: Solid

Analysis Batch: 2447

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2496

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
							Limits	RPD		
Benzene	0.100	0.1150		mg/Kg		115	70 - 130	7		35
Toluene	0.100	0.1257		mg/Kg		126	70 - 130	9		35
Ethylbenzene	0.100	0.1230		mg/Kg		123	70 - 130	9		35
m-Xylene & p-Xylene	0.200	0.2213		mg/Kg		111	70 - 130	9		35
o-Xylene	0.100	0.1248		mg/Kg		125	70 - 130	9		35

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: MB 880-2531/5-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2531

Analyte	MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/30/21 10:02	04/30/21 13:04	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/30/21 10:02	04/30/21 13:04	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	102		70 - 130	04/30/21 10:02	04/30/21 13:04	1
1,4-Difluorobenzene (Surr)	103		70 - 130	04/30/21 10:02	04/30/21 13:04	1

Lab Sample ID: LCS 880-2531/1-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2531

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							Limits	
Benzene	0.100	0.1038		mg/Kg		104	70 - 130	
Toluene	0.100	0.1076		mg/Kg		108	70 - 130	
Ethylbenzene	0.100	0.1124		mg/Kg		112	70 - 130	
m-Xylene & p-Xylene	0.200	0.2307		mg/Kg		115	70 - 130	
o-Xylene	0.100	0.1099		mg/Kg		110	70 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: LCSD 880-2531/2-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2531

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits		RPD	Limit
							Limits	RPD		
Benzene	0.100	0.1038		mg/Kg		104	70 - 130	0		35

Eurofins Xenco, Carlsbad



## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Lab Sample ID: LCSD 880-2531/2-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2531

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.1080		mg/Kg		108	70 - 130	0	35
Ethylbenzene	0.100	0.1121		mg/Kg		112	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2306		mg/Kg		115	70 - 130	0	35
o-Xylene	0.100	0.1098		mg/Kg		110	70 - 130	0	35

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

Lab Sample ID: MB 880-2540/5-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2540

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/30/21 13:50	05/01/21 00:58	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/30/21 13:50	05/01/21 00:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/30/21 13:50	05/01/21 00:58	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/30/21 13:50	05/01/21 00:58	1

Lab Sample ID: LCS 880-2540/1-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2540

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09679		mg/Kg		97	70 - 130
Toluene	0.100	0.09743		mg/Kg		97	70 - 130
Ethylbenzene	0.100	0.1008		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2054		mg/Kg		103	70 - 130
o-Xylene	0.100	0.09986		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-2540/2-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2540

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1003		mg/Kg		100	70 - 130	4	35
Toluene	0.100	0.1026		mg/Kg		103	70 - 130	5	35

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Lab Sample ID: LCSD 880-2540/2-A

Matrix: Solid

Analysis Batch: 2530

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2540

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	0.100	0.1057		mg/Kg		106	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2159		mg/Kg		108	70 - 130	5	35
o-Xylene	0.100	0.1048		mg/Kg		105	70 - 130	5	35

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

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

Lab Sample ID: MB 880-2518/1-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2518

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		04/30/21 08:50	05/02/21 21:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/02/21 21:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/02/21 21:08	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 08:50	05/02/21 21:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	04/30/21 08:50	05/02/21 21:08	1
o-Terphenyl	103		70 - 130	04/30/21 08:50	05/02/21 21:08	1

Lab Sample ID: LCS 880-2518/2-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1115		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1074		mg/Kg		107	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	101		70 - 130

Lab Sample ID: LCSD 880-2518/3-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2518

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	947.2		mg/Kg		95	70 - 130	16	20
Diesel Range Organics (Over C10-C28)	1000	1094		mg/Kg		109	70 - 130	2	20

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Lab Sample ID: LCSD 880-2518/3-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2518

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	103		70 - 130

Lab Sample ID: MB 880-2539/1-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2539

	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		04/30/21 10:36	05/02/21 11:36	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 11:36	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 11:36	1	
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 10:36	05/02/21 11:36	1	

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
1-Chlorooctane	101		70 - 130	04/30/21 10:36	05/02/21 11:36	1			
o-Terphenyl	108		70 - 130	04/30/21 10:36	05/02/21 11:36	1			

Lab Sample ID: LCS 880-2539/2-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2539

	Spike	LCS	LCS						
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	1157		mg/Kg		116	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	943.3		mg/Kg		94	70 - 130		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: LCSD 880-2539/3-A

Matrix: Solid

Analysis Batch: 2600

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2539

	Spike	LCSD	LCSD							
Analyte	Added	Result	Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	1000	1133		mg/Kg		113	70 - 130	2	20	
Diesel Range Organics (Over C10-C28)	1000	942.3		mg/Kg		94	70 - 130	0	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	91		70 - 130

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Lab Sample ID: MB 880-2551/1-A

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2551

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		04/30/21 14:09	05/02/21 11:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 11:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 11:36	1
Total TPH	<50.0	U	50.0	mg/Kg		04/30/21 14:09	05/02/21 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	04/30/21 14:09	05/02/21 11:36	1
o-Terphenyl	114		70 - 130	04/30/21 14:09	05/02/21 11:36	1

Lab Sample ID: LCS 880-2551/2-A

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2551

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1121		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1090		mg/Kg		109	70 - 130

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

Lab Sample ID: LCSD 880-2551/3-A

Matrix: Solid

Analysis Batch: 2598

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2551

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1115		mg/Kg		112	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	1038		mg/Kg		104	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	101		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2564/1-A

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			05/04/21 16:39	1

Eurofins Xenco, Carlsbad

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

Lab Sample ID: LCS 880-2564/2-A

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	255.1		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-2564/3-A

Matrix: Solid

Analysis Batch: 2689

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	255.4		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-596-3 MS

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: PH01A

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	<4.98	U	249	243.6		mg/Kg		97	90 - 110		

Lab Sample ID: 890-596-3 MSD

Matrix: Solid

Analysis Batch: 2689

Client Sample ID: PH01A

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.98	U	249	244.1		mg/Kg		98	90 - 110	0	20

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

## GC VOA

## Analysis Batch: 2447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Total/NA	Solid	8021B	2496
MB 880-2450/5-A	Method Blank	Total/NA	Solid	8021B	2450
MB 880-2496/5-A	Method Blank	Total/NA	Solid	8021B	2496
LCS 880-2496/1-A	Lab Control Sample	Total/NA	Solid	8021B	2496
LCSD 880-2496/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2496

## Prep Batch: 2450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2450/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 2496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Total/NA	Solid	5035	
MB 880-2496/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2496/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2496/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Analysis Batch: 2530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-2	PH01	Total/NA	Solid	8021B	2540
890-596-3	PH01A	Total/NA	Solid	8021B	2540
890-596-4	PH02	Total/NA	Solid	8021B	2540
890-596-5	PH02A	Total/NA	Solid	8021B	2540
890-596-6	PH03	Total/NA	Solid	8021B	2531
890-596-7	PH03A	Total/NA	Solid	8021B	2531
890-596-8	PH04	Total/NA	Solid	8021B	2531
890-596-9	PH04A	Total/NA	Solid	8021B	2531
MB 880-2531/5-A	Method Blank	Total/NA	Solid	8021B	2531
MB 880-2540/5-A	Method Blank	Total/NA	Solid	8021B	2540
LCS 880-2531/1-A	Lab Control Sample	Total/NA	Solid	8021B	2531
LCS 880-2540/1-A	Lab Control Sample	Total/NA	Solid	8021B	2540
LCSD 880-2531/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2531
LCSD 880-2540/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2540

## Prep Batch: 2531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-6	PH03	Total/NA	Solid	5035	
890-596-7	PH03A	Total/NA	Solid	5035	
890-596-8	PH04	Total/NA	Solid	5035	
890-596-9	PH04A	Total/NA	Solid	5035	
MB 880-2531/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2531/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2531/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## Prep Batch: 2540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-2	PH01	Total/NA	Solid	5035	
890-596-3	PH01A	Total/NA	Solid	5035	
890-596-4	PH02	Total/NA	Solid	5035	
890-596-5	PH02A	Total/NA	Solid	5035	
MB 880-2540/5-A	Method Blank	Total/NA	Solid	5035	

Eurofins Xenco, Carlsbad

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

## GC VOA (Continued)

## Prep Batch: 2540 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-2540/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2540/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

## GC Semi VOA

## Prep Batch: 2518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-4	PH02	Total/NA	Solid	8015NM Prep	
890-596-5	PH02A	Total/NA	Solid	8015NM Prep	
890-596-6	PH03	Total/NA	Solid	8015NM Prep	
890-596-7	PH03A	Total/NA	Solid	8015NM Prep	
890-596-8	PH04	Total/NA	Solid	8015NM Prep	
890-596-9	PH04A	Total/NA	Solid	8015NM Prep	
MB 880-2518/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2518/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Prep Batch: 2539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-3	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-2539/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2539/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Prep Batch: 2551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Total/NA	Solid	8015NM Prep	
890-596-2	PH01	Total/NA	Solid	8015NM Prep	
MB 880-2551/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2551/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2551/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 2598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Total/NA	Solid	8015B NM	2551
890-596-2	PH01	Total/NA	Solid	8015B NM	2551
MB 880-2551/1-A	Method Blank	Total/NA	Solid	8015B NM	2551
LCS 880-2551/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2551
LCSD 880-2551/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2551

## Analysis Batch: 2600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-3	PH01A	Total/NA	Solid	8015B NM	2539
890-596-4	PH02	Total/NA	Solid	8015B NM	2518
890-596-5	PH02A	Total/NA	Solid	8015B NM	2518
890-596-6	PH03	Total/NA	Solid	8015B NM	2518
890-596-7	PH03A	Total/NA	Solid	8015B NM	2518
890-596-8	PH04	Total/NA	Solid	8015B NM	2518
890-596-9	PH04A	Total/NA	Solid	8015B NM	2518
MB 880-2518/1-A	Method Blank	Total/NA	Solid	8015B NM	2518
MB 880-2539/1-A	Method Blank	Total/NA	Solid	8015B NM	2539

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## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

## GC Semi VOA (Continued)

## Analysis Batch: 2600 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-2518/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2518
LCS 880-2539/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2539
LCSD 880-2518/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2518
LCSD 880-2539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2539

## HPLC/IC

## Leach Batch: 2564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Soluble	Solid	DI Leach	
890-596-2	PH01	Soluble	Solid	DI Leach	
890-596-3	PH01A	Soluble	Solid	DI Leach	
890-596-4	PH02	Soluble	Solid	DI Leach	
890-596-5	PH02A	Soluble	Solid	DI Leach	
890-596-6	PH03	Soluble	Solid	DI Leach	
890-596-7	PH03A	Soluble	Solid	DI Leach	
890-596-8	PH04	Soluble	Solid	DI Leach	
890-596-9	PH04A	Soluble	Solid	DI Leach	
MB 880-2564/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2564/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2564/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-596-3 MS	PH01A	Soluble	Solid	DI Leach	
890-596-3 MSD	PH01A	Soluble	Solid	DI Leach	

## Analysis Batch: 2689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-596-1	FS01	Soluble	Solid	300.0	2564
890-596-2	PH01	Soluble	Solid	300.0	2564
890-596-3	PH01A	Soluble	Solid	300.0	2564
890-596-4	PH02	Soluble	Solid	300.0	2564
890-596-5	PH02A	Soluble	Solid	300.0	2564
890-596-6	PH03	Soluble	Solid	300.0	2564
890-596-7	PH03A	Soluble	Solid	300.0	2564
890-596-8	PH04	Soluble	Solid	300.0	2564
890-596-9	PH04A	Soluble	Solid	300.0	2564
MB 880-2564/1-A	Method Blank	Soluble	Solid	300.0	2564
LCS 880-2564/2-A	Lab Control Sample	Soluble	Solid	300.0	2564
LCSD 880-2564/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2564
890-596-3 MS	PH01A	Soluble	Solid	300.0	2564
890-596-3 MSD	PH01A	Soluble	Solid	300.0	2564

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: FS01

Lab Sample ID: 890-596-1

Date Collected: 04/28/21 13:23

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2496	04/29/21 16:15	MR	XM
Total/NA	Analysis	8021B		1	2447	04/30/21 09:01	KL	XM
Total/NA	Prep	8015NM Prep			2551	04/30/21 14:09	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/02/21 20:05	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 17:57	WP	XM

Client Sample ID: PH01

Lab Sample ID: 890-596-2

Date Collected: 04/28/21 14:07

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2540	04/30/21 13:50	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 03:29	MR	XM
Total/NA	Prep	8015NM Prep			2551	04/30/21 14:09	DM	XM
Total/NA	Analysis	8015B NM		1	2598	05/02/21 20:26	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:02	WP	XM

Client Sample ID: PH01A

Lab Sample ID: 890-596-3

Date Collected: 04/28/21 14:13

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2540	04/30/21 13:50	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 03:49	MR	XM
Total/NA	Prep	8015NM Prep			2539	04/30/21 10:36	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/02/21 20:26	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:07	WP	XM

Client Sample ID: PH02

Lab Sample ID: 890-596-4

Date Collected: 04/28/21 14:20

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2540	04/30/21 13:50	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 04:10	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 01:43	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:23	WP	XM

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## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: PH02A

Lab Sample ID: 890-596-5

Date Collected: 04/28/21 14:23

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2540	04/30/21 13:50	KL	XM
Total/NA	Analysis	8021B		1	2530	05/01/21 04:30	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 02:03	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:28	WP	XM

Client Sample ID: PH03

Lab Sample ID: 890-596-6

Date Collected: 04/28/21 14:30

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 19:26	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 02:46	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:44	WP	XM

Client Sample ID: PH03A

Lab Sample ID: 890-596-7

Date Collected: 04/28/21 14:34

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 19:46	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 03:07	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:49	WP	XM

Client Sample ID: PH04

Lab Sample ID: 890-596-8

Date Collected: 04/28/21 14:39

Matrix: Solid

Date Received: 04/29/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 20:06	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 03:28	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:54	WP	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Client Sample ID: PH04A  
Date Collected: 04/28/21 14:42  
Date Received: 04/29/21 09:08

Lab Sample ID: 890-596-9  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2531	04/30/21 10:02	MR	XM
Total/NA	Analysis	8021B		1	2530	04/30/21 20:27	MR	XM
Total/NA	Prep	8015NM Prep			2518	04/30/21 08:50	DM	XM
Total/NA	Analysis	8015B NM		1	2600	05/03/21 03:48	AJ	XM
Soluble	Leach	DI Leach			2564	04/30/21 14:59	CH	XM
Soluble	Analysis	300.0		1	2689	05/04/21 18:59	WP	XM

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

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Laboratory: Eurofins Xenco, Midland

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

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

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

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

## Method Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

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

**Protocol References:**

ASTM = ASTM International

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

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

**Laboratory References:**

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

## Sample Summary

Client: WSP USA Inc.  
Project/Site: Nash Depp East

Job ID: 890-596-1  
SDG: TE012921038

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-596-1	FS01	Solid	04/28/21 13:23	04/29/21 09:08	- 2.5
890-596-2	PH01	Solid	04/28/21 14:07	04/29/21 09:08	- 1
890-596-3	PH01A	Solid	04/28/21 14:13	04/29/21 09:08	- 2.5
890-596-4	PH02	Solid	04/28/21 14:20	04/29/21 09:08	- 1
890-596-5	PH02A	Solid	04/28/21 14:23	04/29/21 09:08	- 2.5
890-596-6	PH03	Solid	04/28/21 14:30	04/29/21 09:08	- 1
890-596-7	PH03A	Solid	04/28/21 14:34	04/29/21 09:08	- 2.5
890-596-8	PH04	Solid	04/28/21 14:39	04/29/21 09:08	- 1
890-596-9	PH04A	Solid	04/28/21 14:42	04/29/21 09:08	- 2.5





Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334  
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296  
Phoenix, AZ (602-392-7550) Atlanta, GA (770-449-8800) Tampa, FL (813) 233-3927  
Hobbs, NM (505-392-7550)

## Chain of Custody

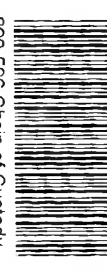
**Work Order No:**

Page 1 of 1

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

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

Project Name:	Nash Deep East	Turn Around	ANALYSIS REQUEST	<div> <div>Work Order Notes</div> <div>Cost Center 1056641001</div> <div>Incident # NAPP2108246073</div> </div>
Project Number:	TE012921038	Routine <input checked="" type="checkbox"/>		
P.O. Number:		Rush:		
Sampler's Name:	Elliot Lee			
	Due Date:			
<b>SAMPLE RECEIPT</b>				
Temperature (°C):	14.4	Temp Blank: <input checked="" type="radio"/> Yes <input type="radio"/> No	Wet Ice: <input checked="" type="radio"/> Yes <input type="radio"/> No	
Received Intact:	<input checked="" type="radio"/> Yes <input type="radio"/> No	Thermometer ID		
Cooler Custody Seals:	Yes <input type="radio"/> No <input checked="" type="radio"/>	Correction Factor:		
Sample Custody Seals:	Yes <input checked="" type="radio"/> No <input type="radio"/>	Total Containers:		
<div> <div>Number of Containers</div> <div> <div>PA 8015)</div> <div>EPA 0=8021)</div> <div>de (EPA 300.0)</div> </div> </div>				
<div> <div>890-556 Chan of Custody</div> <div>  </div> </div>				
<div> <div>TAT starts the day received by the lab, if received by 4:30pm</div> </div>				



[illegible]

**Total 200.7 / 6010      200.8 / 6020:**  
Circle Method(s) and Metal(s) to be

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ii Sn U V Zn  
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TLL 1634245.177470774

1634/245.1/7470-7471: HQ

Notice: Signature of this document and cancellation of samples constitutes a valid purchase order from client company to Xanco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xanco 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 Xanco. A minimum charge of \$25.00 will be applied to each project and a charge of \$5 for each sample submitted to Xanco, 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
		4.29.2018			

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Eurofins Xenco, Carlsbad

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

## Chain of Custody Record



eurofins

Environment Testing  
America

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab PM	Carrier Tracking No(s)	COC No:
Client Contact	Phone	Kramer, Jessica	State of Origin	New Mexico	890-190 1
Shipping/Receiving	E-Mail	Jessica.kramer@eurofinset.com	Page:	Page 1 of 1	
Company	Accreditations Required (See note)	NEIAP - Louisiana NEIAP - Texas	Job #:	890-596-1	
Address:		Due Date Requested	Analysis Requested		
1211 W Florida Ave		5/5/2021			
City	TAT Requested (days)				
Midland					
State Zip	PO #				
TX 79701					
Phone	WO #				
432-704-5440(Tel)					
Email	Project #:				
	89000004				
Project Name:	SSON#:				
Nash Depp East					
Site					
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other, A=air)
FS01 (890-596-1)	4/28/21	13 23	Mountain	Solid	
PH01 (890-596-2)	4/28/21	14 07	Mountain	Solid	
PH01A (890-596-3)	4/28/21	14 13	Mountain	Solid	
PH02 (890-596-4)	4/28/21	14 20	Mountain	Solid	
PH02A (890-596-5)	4/28/21	14 23	Mountain	Solid	
PH03 (890-596-6)	4/28/21	14 30	Mountain	Solid	
PH03A (890-596-7)	4/28/21	14 34	Mountain	Solid	
PH04 (890-596-8)	4/28/21	14 39	Mountain	Solid	
PH04A (890-596-9)	4/28/21	14 42	Mountain	Solid	
Note: Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State 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>					
Unconfirmed					
Deliverable Requested I II III IV Other (specify)		Primary Deliverable Rank 2			
Empty Kit Relinquished by		Date	Time	Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 4-29-21		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Received by:	
Relinquished by:		Date/Time:		Received by:	
Custody Seals Intact		Custody Seal No		Colder Temperature(s) °C and Other Remarks	
Δ Yes Δ No					

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-596-1

SDG Number: TE012921038

Login Number: 596

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: 890-596-1

SDG Number: TE012921038

Login Number: 596

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 04/29/21 04:03 PM

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

**District I**

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**District II**

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**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 30756

**CONDITIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 30756
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
rhamlet	XTO's deferral requests to complete final remediation of soil sample location SS03 during any future major deconstruction/alteration and/or abandonment, whichever occurs first. At this time, OCD approves the request. The Deferral Request and C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue. This is a Federal site and will require like approval from BLM.	9/9/2021