District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2201944299
District RP	1 (111111111111111111111111111111111111
Facility ID	
Application ID	

# **Release Notification**

# **Responsible Party**

Responsible Party OGRI			OGRID			
Contact Name Contact			Contact Te	elephone		
Contact emai	1			Incident #	(assigned by OCD)	)
Contact mail	ing address			1		
			Location	of Release So	ource	
Latitude			(NAD 83 in dec	Longitude _ imal degrees to 5 decin	nal places)	
Site Name				Site Type		
Date Release	Discovered			API# (if app	licable)	
Unit Letter	Section	Township	Range	Coun	ity	]
Crude Oil	Material	Federal Tr	Nature and	l Volume of I		e volumes provided below)
					Volume Reco	,
Troduced	Produced Water Volume Released (bbls)  Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?			Yes No		
Condensa	te	Volume Release	d (bbls)		Volume Recovered (bbls)	
☐ Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)	
Other (describe) Volume/Weight Released (provide units)		Volume/Weig	ght Recovered (provide units)			
Cause of Rele	ease					

Received by OCD: 4/1/20229:45:53 (AMM) State of New Mexico
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Was this a major release as defined by 19.15.29.7(A) NMAC?  ☐ Yes ☐ No	If YES, for what reason(s) does the respon	nsible party consider this a major release?
If YES, was immediate no	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?
	Initial Ro	esponse
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stopped.	
☐ The impacted area ha	as been secured to protect human health and	the environment.
Released materials ha	ave been contained via the use of berms or d	ikes, absorbent pads, or other containment devices.
☐ All free liquids and re	ecoverable materials have been removed and	d managed appropriately.
has begun, please attach	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.
regulations all operators are public health or the environr failed to adequately investig	required to report and/or file certain release notinent. The acceptance of a C-141 report by the Cate and remediate contamination that pose a thre	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger ICD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws
Printed Name:	12	Title:
Printed Name:  Signature:	rian Dafes	Date:
email:		Telephone:
OCD Only		
Received by: Ramo	ona Marcus	Date: 3/2/2022

# NAPP2201944299

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

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

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

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

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

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

CONDITIONS

Action 73500

## **CONDITIONS**

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

#### CONDITIONS

Created By		Condition Date
rmarcus	None	3/2/2022

of New Mexico

Incident ID	NAPP2201944299
District RP	
Facility ID	
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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?	_50-100_ (ft bgs)			
Did this release impact groundwater or surface water?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ⊠ No			
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No			
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No			
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No			
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying a subsurface mine?				
Are the lateral extents of the release overlying an unstable area such as karst geology?				
Are the lateral extents of the release within a 100-year floodplain?				
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?				
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.				
<ul> <li>Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.</li> <li>Field data</li> <li>Data table of soil contaminant concentration data</li> <li>Depth to water determination</li> <li>Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release</li> <li>Boring or excavation logs</li> <li>Photographs including date and GIS information</li> <li>Topographic/Aerial maps</li> <li>Laboratory data including chain of custody</li> </ul>				
Laboratory data including chain of custody				

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

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.				
Printed Name: Adrian Baker	Title: Environmental Coordinator			
Signature:Odvion Baks	Date: 03/28/2022			
email: Adrian.Baker@exxonmobil.com	Telephone: (432) 236-3808			
OCD Only				
Received by:	Date:			

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# Closure

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

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

A scaled site and sampling diagram as described in 19.15.29.11 I	NMAC							
☐ Photographs of the remediated site prior to backfill or photos of t	he liner integrity if applicable (Note: appropriate OCD District office							
must be notified 2 days prior to liner inspection)								
☐ Laboratory analyses of final sampling (Note: appropriate OCD D	istrict office must be notified 2 days prior to final sampling)							
□ Description of remediation activities								
which may endanger public health or the environment. The acceptance liability should their operations have failed to adequately investigate water, human health of the environment. In addition, OCD acceptance compliance with any other federal, state, or local laws and/or regulative restore, reclaim, and re-vegetate the impacted surface area to the confidence with 19.15.29.13 NMAC including notification to the OC	ertain release notifications and perform corrective actions for releases ce of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, surface e of a C-141 report does not relieve the operator of responsibility for ons. The responsible party acknowledges they must substantially ditions that existed prior to the release or their final land use in CD when reclamation and re-vegetation are complete.							
Printed Name: Adrian Baker	Title: Environmental Coordinator							
Signature:Odvion Bajes	Date: 03/28/2022							
Email: _ Adrian.Baker@exxonmobil.com	Telephone: (432) 236-3808							
ODG O-I-								
ODC Only								
Received by:	Date:							
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.								
Closure Approved by:	Date: 04/20/2022							
Closure Approved by:	Title: Environmental Specialist A							

wsp

WSP USA

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

March 28, 2022

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

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

To Whom It May Concern:

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

## **RELEASE BACKGROUND**

On January 5, 2022, corrosion caused a Victaulic connection on a lay-flat line to fail, and resulted in the release of approximately 17.01 barrels (bbls) of frac fluid onto the surface of the well pad. A vacuum truck was immediately dispatched to remove all free-standing fluid. Approximately 15.0 bbls of frac fluid were recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on January 19, 2022. The release was assigned Incident Number NAPP2201944299.

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

#### SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be between 50-100 feet (below ground surface) bgs based on a recent soil boring drilled for determination of regional groundwater



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

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

#### **CLOSURE CRITERIA**

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

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

## SITE ASSESSMENT, SOIL SAMPLING ACTIVITIES, AND ANALYTICAL RESULTS

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

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



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

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

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

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

# **CLOSURE REQUEST**

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

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



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

Sincerely,

WSP USA Inc.

Hadlie Green

Hadeie Green

Assistant Consultant, Geologist

Aimee Cole

Sr. Consultant, Environmental Scientist

cc: Adrian Baker, XTO

**Bureau of Land Management** 

#### Attachments:

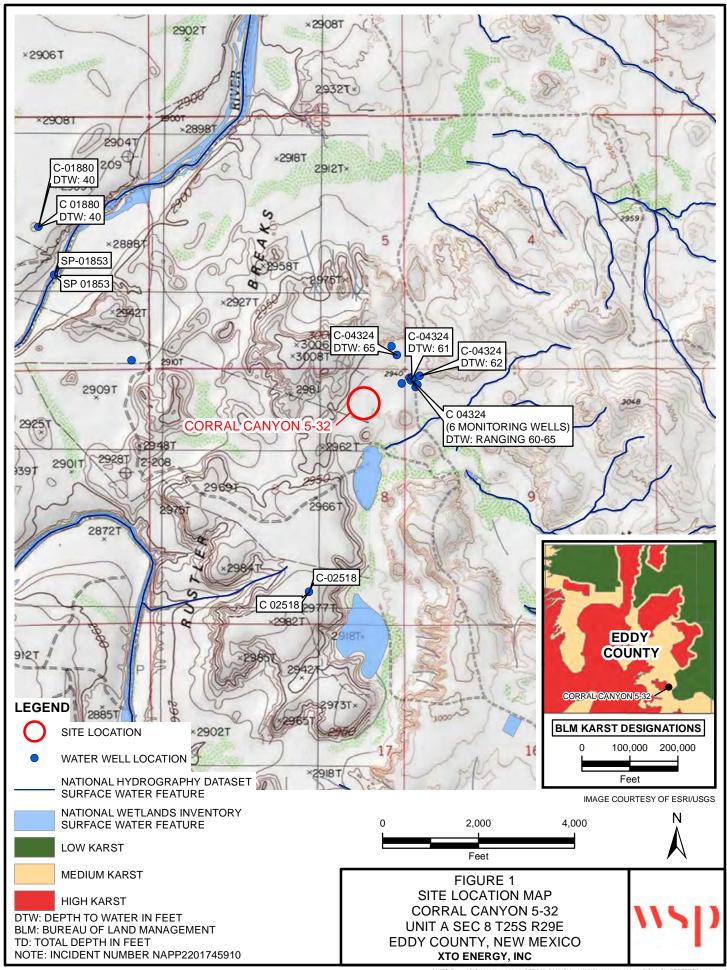
Figure 1 Site Location Map

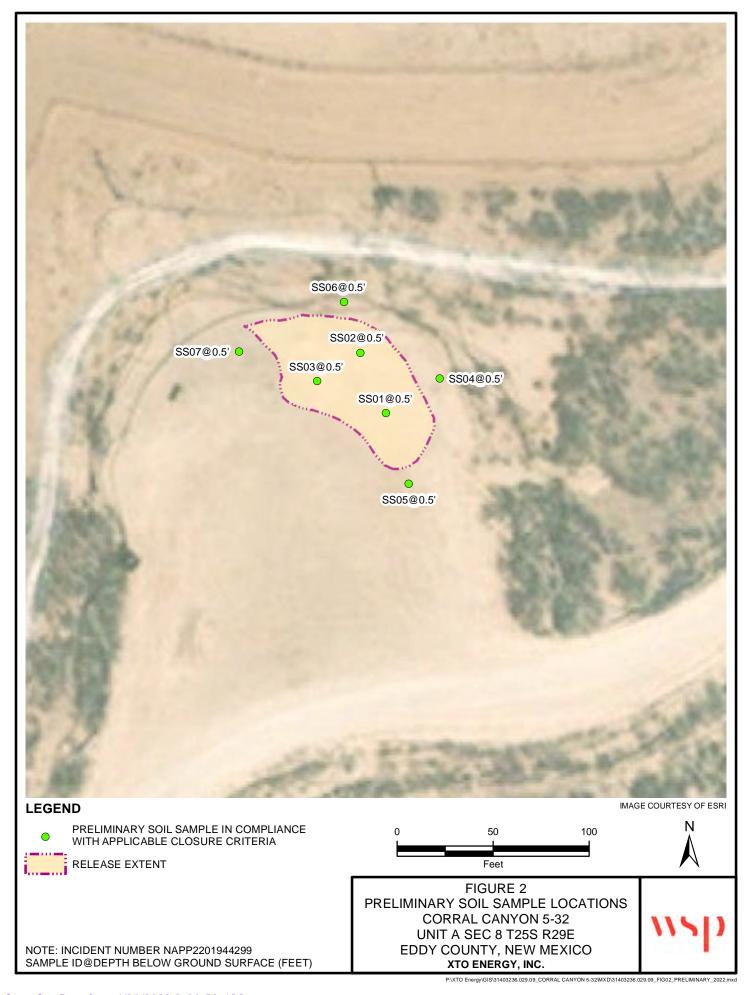
Figure 2 Preliminary Soil Sample Locations
Figure 3 Delineation Soil Sample Locations

Table 1 Soil Analytical Results
Attachment 1 SDS for Friction Reducer
Attachment 2 Referenced Well Records
Attachment 3 Lithologic/Soil Sampling Logs

Attachment 4 Photographic Log

Attachment 5 Laboratory Analytical Reports





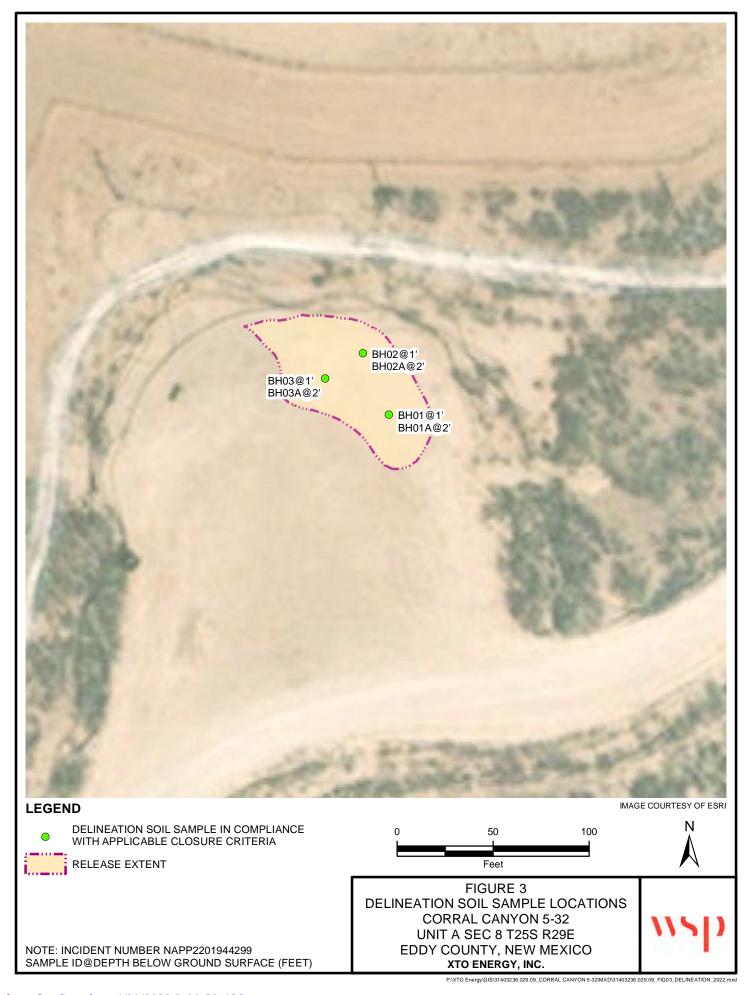


Table 1

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

Sample ID Sample Date		Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)	
NMOCD Table 1 Cl	osure Criteria (NM	AC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	10,000	
Preliminary Soil Samples											
SS01	02/17/2022	0.5	< 0.00202	< 0.00404	<50.0	<50.0	<50.0	<50.0	< 50.0	226	
SS02	02/17/2022	0.5	< 0.00200	< 0.00399	<50.0	<50.0	<50.0	<50.0	< 50.0	585	
SS03	02/17/2022	0.5	< 0.00200	< 0.00400	57.1	<49.9	<49.9	57.1	57.1	704	
SS04	03/22/2022	0.5	< 0.00199	< 0.00398	<50.0	<50.0	<50.0	<50.0	< 50.0	59.7	
SS05	02/17/2022	0.5	< 0.00198	< 0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	212	
SS06	02/17/2022	0.5	< 0.00199	< 0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	122	
SS07	02/17/2022	0.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	185	
Delineation Soil Sam	iples										
BH01	03/11/2022	1	< 0.00200	< 0.00401	167	<49.8	<49.8	167	167	578	
BH01A	03/11/2022	2	< 0.00202	< 0.00403	779	<49.9	<49.9	779	779	529	
BH02	03/11/2022	1	< 0.00201	< 0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	225	
BH02A	03/11/2022	2	< 0.00201	< 0.00402	<50.0	<50.0	<50.0	<50.0	< 50.0	34.3	
BH03	03/11/2022	1	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	92.3	
ВН3А	03/11/2022	2	< 0.00202	< 0.00403	<50.0	<50.0	< 50.0	<50.0	< 50.0	29.0	

#### Notes:

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

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

NE - Not Established

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



# SAFETY DATA SHEET

Issuing Date 01-Aug-2019 Revision Date 01-Aug-2019 Revision Number 1

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

Product identifier

Product Name POLYglide Xcel-200

Other means of identification

Product Code(s) 10497

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address Manufacturer Address

 PfP Industries
 PfP Industries

 29738 Goynes Rd.
 29738 Goynes Rd.

 Katy, TX 77493
 Katy, TX 77493

Emergency telephone number

Company Phone Number 281-371-2000

Emergency Telephone Chemtrec 1-800-424-9300

# 2. HAZARDS IDENTIFICATION

#### Classification

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

Flammable liquids Category 4

# Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

# Warning

Combustible liquid

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Revision Date 01-Aug-2019

Appearance Opaque Physical state Liquid Odor Mineral Oil

Precautionary Statements - Prevention

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

Precautionary Statements - Response

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

Precautionary Statements - Storage Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal** 

Dispose of contents/container to an approved waste disposal plant

Other Information

May be harmful in contact with skin Harmful to aquatic life

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

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

<sup>\*</sup>The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. FIRST AID MEASURES

#### Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s)

involved, take precautions to protect themselves and prevent spread of contamination.

Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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Revision Date 01-Aug-2019

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the

chemical

Keep product and empty container away from heat and sources of ignition. In the event of

fire, cool tanks with water spray.

**Explosion data** 

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See

section 8 for more information. Take precautionary measures against static discharges. Do

not touch or walk through spilled material.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage

if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far

ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert

absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

# 7. HANDLING AND STORAGE

# Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat,

hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

#### Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from

heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular

national regulations. Store in accordance with local regulations.

EN / AGHS Page 3/8

Revision Date 01-Aug-2019

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or

level that contributes to the hazard classification of the mixture) which have an exposure

limit applicable in the region for which this safety data sheet is intended or other

recommended limit. At this time, the other relevant constituents have no known exposure

limits from the sources listed here.

Appropriate engineering controls

Engineering controls Showers

Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not

be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Opaque

Color Milky white to yellow

Odor Mineral Oil

Odor threshold No information available

Property Values Remarks • Method

pH No data available None known
Melting point / freezing point No data available None known
Boiling point / boiling range No data available None known

Flash point >= 67 °C / 153 °F

Evaporation rate No data available None known Flammability (solid, gas) No data available None known

Flammability Limit in Air None known

Upper flammability limit: No data available
Lower flammability limit: No data available

Vapor pressureNo data availableNone knownVapor densityNo data availableNone known

Relative density 0.97 - 1.03 Water solubility Miscible in water

Solubility in other solvents
Partition coefficient
No data available
None known
Autoignition temperature
No data available
None known

Kinematic viscosity ≥150 mm²/s

Dynamic viscosity No data available None known

Dynamic viscosity No data available None known Explosive properties No information available

Oxidizing properties No information available

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Revision Date 01-Aug-2019

Other Information

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

# 10. STABILITY AND REACTIVITY

Reactivity No information available.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Heat, flames and sparks.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

# 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

#### **Product Information**

Inhalation Specific test data for the substance or mixture is not available.

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

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

Ingestion Specific test data for the substance or mixture is not available.

#### Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

#### Numerical measures of toxicity

#### Acute toxicity

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

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

Component Information

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

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

Skin corrosion/irritation No information available.

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Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

# 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

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

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

# 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Waste from residues/unused

products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

# 14. TRANSPORT INFORMATION

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

# 15. REGULATORY INFORMATION

International Inventories

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

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Revision Date 01-Aug-2019

PICCS Complies
AICS Complies

Legend:

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

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

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

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

#### US Federal Regulations

#### **SARA 313**

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

#### SARA 311/312 Hazard Categories

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

#### CWA (Clean Water Act)

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

#### CERCI A

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

#### **US State Regulations**

#### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### U.S. State Right-to-Know Regulations

**US State Regulations** 

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

#### U.S. EPA Label Information

#### EPA Pesticide Registration Number Not applicable

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

NFPA Health hazards 2 Flammability 2 Instability 0 Physical and chemical

properties HMIS Health hazards 2 Flammability 2 Physical hazards 0 Personal protection X

Issuing Date 01-Aug-2019

Revision Date 01-Aug-2019

Revision Note No information available.

#### Disclaimer

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

**End of Safety Data Sheet** 

EN / AGHS Page 8/8



	OSE POD NO	•	)	,	WELL TAG ID NO			OSE FILE NO(S).					
Š	POD 12 (M	-						C-4324					
1	WELL OWN							PHONE (OPTIONAL)					
Š	XTO Energ							432-221-73	· . <del></del>				
GENERAL AND WELL LOCATION	522 W Me							CITY		STATE NM	88220	ZIP	
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2	WELL		DI	GREES	MINUTES	SECONDS					"		
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E. 2	(FROM GP	S) LO	NGITUDE	103	59	52.36	W	* DATUM REG	QUIRED. WGS 84				
	DESCRIPTION	ON RELATIN	G WELL LOCATION TO	STREET ADDRE	SS AND COMMON	LANDMARK	S - PLS	S (SECTION, TO	WNSHJIP, RANGE) WH	ERE AVA	ILABLE		
=	North Wes	t Quarter o	of North West Quar	ter of Section	9, Township 25	South, Ra	inge 2	9 East, Eddy	County, New Mex	ico			
	<u> </u>		μ						T.	***			
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			,,,20,2019	<del></del>					STATIC WATER LEV		MINI ETED ME	21 (PT)	
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PAGE 1 OF 2

FILE NO. LOCATION

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		(IES/NO)	ZONES (gpm)								
	0	20	20	(SP-SM) - brown-light brown silty SAND	Y ✓N						
	20	50	30	(CLCHE) - tan CALICHE	Y ✔N						
	50	51	1	(ML) - red-brown SILT		Y ✓N					
	51	52	1	(DOL) - light green DOLOMITE		Y ✔N					
	52	60	8	(ML) - brown-red clayey SILT		Y ✓N					
7	60	65	5	(DOL) - light green DOLOMITE		√Y N					
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FILE NO.

LOCATION

	00782, -10	4.000646	9	GIC / SOI	508 West rlsbad, N L SAMP Field Scre			BH or PH Name:  BH01  Site Name: Corral Canyon 5-32  RP or Incident Number:  WSP Job Number: 31403236  Logged By:AC  Hole Diame 0.5'	nAPP2201944299			
	ist; D-dry; \			, oontam 10 /	0 001100110	11 140101						
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks				
D D	1,428	0.3	Y Y	BH01A	2 -			no stain	lark brown, coarse grained or odor  2' bgs  dor, moderate staining	, poorly graded,		
					- - -	<u></u>						

									ı		
			4		۱۸/	SP USA			BH or PH Name:		
	11.				VV.	SP USA			BH02		
	• •	10	В		508 West	Stevens St	reet		Site Name: Corral Canyon 5-32		
				Ca	rlsbad, N	Stevens St ew Mexico	88220		RP or Incident Number: nAPP2201944299		
									WSP Job Number: <b>31403236.029</b>		
LITHOLOGIC / SOIL SAMPLING LOG									Logged By:AC	Method: HAND AUGER	
Lat/Long: Field Screening:								Hole Diame 0.5'	Total Depth: 2'		
	01662, -10	4.000690	5		i iela ocie	eriirig.			Flore Diame 0.5	Total Depth. 2	
Comn	nents:	all chlori	de tests	s contain 40%	6 correction	n factor					
M-mo	ist; D-dry; \	∕-yes; N-r	no								
				#			USCS/Rock Symbol				
Moisture Content	ide (u	or n)	Staining	Sample #	Sample	Depth (ft	Ro. ool				
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ĕŏ	Chloride (ppm)	> =	Š	Sal	(ft bgs)	bgo)	SC S)				
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D	1,058.4	0.3	Υ	BH02	1	1	SP	SAND.	dark brown, coarse grained,	poorly graded.	
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D	823.2	0.1	Υ	BH02A	2	2		TD @	2' bgs		
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LITHOLOGIC / SOIL Lat/Long: F 32.1501298, -104.0007540					Field Screening:				BH or PH Name:  BH03  Site Name: Corral Canyon 5-32  RP or Incident Number:  WSP Job Number: 3140323  Logged By:AC  Hole Diame 0.5'	nAPP2201944299
Comr M-mo	Comments: all chloride tests contain 40% correction factor M-moist; D-dry; Y-yes; N-no									
Moisture Content		Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	bgs)	USCS/Rock Symbol		Lithology/l	Remarks
D	2,312.8 1,058.4		Y	BH03 BH03A	1 _	1 2		SAND, on stain	dark brown, coarse grained or odor 2' bgs	I, poorly graded,
								strong o	dor, moderate staining	,
					- - - - - -	- - - - -				



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

Photo No. Date
1 February 17, 2022

Photo of release area taken during the initial site assessment.



Photo No. Date
2 February 17, 2022

Photo of release area taken during the initial site assessment.





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

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



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

Photo of borehole location taken during delineation activities.





# **Environment Testing America**

# **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-1972-1

Laboratory Sample Delivery Group: 31403236.3029.task09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

JURAMER

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

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

Review your project results through

Total Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 4/20/2022 9:01:53 AM

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.

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Client: WSP USA Inc. Project/Site: Corral Canyon 5-32 Laboratory Job ID: 890-1972-1 SDG: 31403236.3029.task09.02

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QC Sample Results	9
QC Association Summary	13
Lab Chronicle	15
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Method Summary	17
Sample Summary	18
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# **Definitions/Glossary**

Client: WSP USA Inc. Job ID: 890-1972-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.3029.task09.02

### **Qualifiers**

# **GC VOA**

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

# **GC Semi VOA**

#### Qualifier **Qualifier Description**

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

### HPLC/IC

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

# Glossary

DER

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

Dil Fac Dilution Factor

Detection Limit (DoD/DOE) DL

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

Duplicate Error Ratio (normalized absolute difference)

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) Most Probable Number MPN MQL Method Quantitation Limit

Not Calculated NC

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)

Relative Percent Difference, a measure of the relative difference between two points RPD

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

# **Case Narrative**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1

SDG: 31403236.3029.task09.02

Job ID: 890-1972-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-1972-1

### Receipt

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

### **GC VOA**

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

### GC Semi VOA

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

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

### HPLC/IC

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

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Matrix: Solid

Lab Sample ID: 890-1972-1

# **Client Sample Results**

Client: WSP USA Inc.

Job ID: 890-1972-1

Project/Site: Correl Capyon 5-33

Project/Site: Corral Canyon 5-32 SDG: 31403236.3029.task09.02

Client Sample ID: SS01
Date Collected: 02/17/22 10:20
Date Received: 02/17/22 16:32

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/24/22 09:00	02/25/22 17:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			02/24/22 09:00	02/25/22 17:41	1
1,4-Difluorobenzene (Surr)	107		70 - 130			02/24/22 09:00	02/25/22 17:41	1
- Method: Total BTEX - Total BTE)	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/25/22 20:45	1
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Amalumad	B.: E
				O.I.I.		riepaieu	Analyzed	DII Fac
Total TPH	<50.0	U	50.0	mg/Kg		- герагеи	02/23/22 09:21	Dil Fac
Total TPH  Method: 8015B NM - Diesel Rang								
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)	50.0	mg/Kg	=	<u> </u>	02/23/22 09:21	1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	ge Organics (D	RO) (GC)  Qualifier			<u>D</u>	Prepared 02/22/22 09:05		
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	ge Organics (D Result <50.0	RO) (GC)  Qualifier	50.0 RL 50.0	mg/Kg  Unit  mg/Kg	=	Prepared 02/22/22 09:05	02/23/22 09:21  Analyzed  02/22/22 12:46	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D	RO) (GC)  Qualifier	50.0	mg/Kg	=	Prepared	02/23/22 09:21  Analyzed	1 Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D Result <50.0	RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg  Unit  mg/Kg	=	Prepared 02/22/22 09:05	02/23/22 09:21  Analyzed  02/22/22 12:46	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (D Result <50.0	RO) (GC) Qualifier U	50.0  RL  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/22/22 09:05 02/22/22 09:05	02/23/22 09:21  Analyzed 02/22/22 12:46 02/22/22 12:46	1 Dil Fac 1 1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	ge Organics (D) Result <50.0 <50.0	Qualifier  U  Qualifier  Qualifier	50.0  RL  50.0  50.0  50.0	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/22/22 09:05 02/22/22 09:05 02/22/22 09:05	02/23/22 09:21  Analyzed 02/22/22 12:46 02/22/22 12:46	Dil Fac  1  1  1  Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (D)  Result  <50.0  <50.0  <80.0  *Recovery	Qualifier  U  Qualifier  U  Qualifier	50.0  RL 50.0  50.0  50.0  Limits	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/22/22 09:05 02/22/22 09:05 02/22/22 09:05 Prepared	02/23/22 09:21  Analyzed 02/22/22 12:46 02/22/22 12:46 02/22/22 12:46  Analyzed	Dil Fac  1  1  Dil Fac  Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	ge Organics (D)  Result  <50.0  <50.0  <50.0  <80.0  8	Qualifier  U  Qualifier  U  Qualifier  S1-	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/22/22 09:05 02/22/22 09:05 02/22/22 09:05  Prepared 02/22/22 09:05	02/23/22 09:21  Analyzed 02/22/22 12:46  02/22/22 12:46  Analyzed 02/22/22 12:46	1 Dil Fac 1 Dil Fac 1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	ge Organics (D)  Result  <50.0  <50.0  <50.0   **Recovery  64  72  omatography -	Qualifier  U  Qualifier  U  Qualifier  S1-	50.0  RL 50.0  50.0  50.0  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg	=	Prepared 02/22/22 09:05 02/22/22 09:05 02/22/22 09:05  Prepared 02/22/22 09:05	02/23/22 09:21  Analyzed 02/22/22 12:46  02/22/22 12:46  Analyzed 02/22/22 12:46	1 Dil Fac 1 Dil Fac 1

Client Sample ID: SS02

Date Collected: 02/17/22 10:24

Lab Sample ID: 890-1972-2

Matrix: Solid

Date Collected: 02/17/22 10:24 Date Received: 02/17/22 16:32

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/24/22 09:00	02/25/22 18:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			02/24/22 09:00	02/25/22 18:02	1

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# Client Sample Results

Client: WSP USA Inc. Job ID: 890-1972-1

Project/Site: Corral Canyon 5-32 SDG: 31403236.3029.task09.02

Client Sample ID: SS02

Lab Sample ID: 890-1972-2 Date Collected: 02/17/22 10:24 Matrix: Solid Date Received: 02/17/22 16:32

Sample Depth: 0.5

Method: 8021B - Volatile Organi	c Compounds (GC) (Continu	iea)	
Surrogate	%Recovery Qualifier	Limits	

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

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

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

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

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

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

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac <50.0 U 02/22/22 09:05 02/22/22 13:46 Gasoline Range Organics 50.0 mg/Kg (GRO)-C6-C10 <50.0 U 50.0 02/22/22 09:05 02/22/22 13:46 Diesel Range Organics (Over mg/Kg C10-C28) Oll Range Organics (Over C28-C36) <50.0 U 50.0 mg/Kg 02/22/22 09:05 02/22/22 13:46

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1-Chlorooctane 59 S1-70 - 130 02/22/22 09:05 02/22/22 13:46 o-Terphenyl 67 S1-70 - 130 02/22/22 09:05 02/22/22 13:46

Method: 300.0 - Anions, Ion Chromatography - Soluble

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

Lab Sample ID: 890-1972-3 Client Sample ID: SS03

Date Collected: 02/17/22 10:30 Date Received: 02/17/22 16:32

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

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

70 - 130 4-Bromofluorobenzene (Surr) 95 02/24/22 09:00 02/25/22 18:23 1,4-Difluorobenzene (Surr) 103 70 - 130 02/24/22 09:00 02/25/22 18:23

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

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

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

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

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**Matrix: Solid** 

Matrix: Solid

# **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-1972-1

Project/Site: Corral Canyon 5-32 SDG: 31403236.3029.task09.02

**Client Sample ID: SS03** Lab Sample ID: 890-1972-3 Date Collected: 02/17/22 10:30 Date Received: 02/17/22 16:32

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		02/22/22 09:05	02/22/22 14:07	1
Diesel Range Organics (Over C10-C28)	57.1		49.9	mg/Kg		02/22/22 09:05	02/22/22 14:07	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/22/22 09:05	02/22/22 14:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	63	S1-	70 - 130			02/22/22 09:05	02/22/22 14:07	1
o-Terphenyl	71		70 - 130			02/22/22 09:05	02/22/22 14:07	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	704		5.00	mg/Kg			02/23/22 18:16	1

# **Surrogate Summary**

 Client: WSP USA Inc.
 Job ID: 890-1972-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.3029.task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogat
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-11356-A-1-E MS	Matrix Spike	92	111	
880-11356-A-1-F MSD	Matrix Spike Duplicate	93	106	
890-1972-1	SS01	107	107	
890-1972-2	SS02	103	106	
890-1972-3	SS03	95	103	
LCS 880-19725/1-A	Lab Control Sample	86	107	
LCSD 880-19725/2-A	Lab Control Sample Dup	85	110	
MB 880-19725/5-A	Method Blank	109	102	
Surrogate Legend				
BFB = 4-Bromofluorober	nzene (Surr)			

DED 7 - 4.4 D'A anche and (0 an)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

_			
		1001	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1972-1	SS01	64 S1-	72
890-1972-1 MS	SS01	70	60 S1-
890-1972-1 MSD	SS01	72	61 S1-
890-1972-2	SS02	59 S1-	67 S1-
890-1972-3	SS03	63 S1-	71
LCS 880-20026/2-A	Lab Control Sample	101	106
LCSD 880-20026/3-A	Lab Control Sample Dup	100	106
MB 880-20026/1-A	Method Blank	75	91

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-1972-1 SDG: 31403236.3029.task09.02 Project/Site: Corral Canyon 5-32

Method: 8021B - Volatile Organic Compounds (GC)

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

**Matrix: Solid** Analysis Batch: 20287 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19725

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

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MD MD

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

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

Matrix: Solid

Analysis Batch: 20287

Prep Type: Total/NA

Prep Batch: 19725

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

LCS LCS

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

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

Matrix: Solid

Analysis Batch: 20287

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 19725

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

LCSD LCSD

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

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

Matrix: Solid

Analysis Batch: 20287

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

Prep Batch: 19725

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

Client: WSP USA Inc. Job ID: 890-1972-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.3029.task09.02

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

Lab Sample ID: 880-11356-A-1-E MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 20287** 

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

MS MS

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

Lab Sample ID: 880-11356-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

**Analysis Batch: 20287** 

Prep Type: Total/NA

Prep Batch: 19725

Prep Batch: 19725

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

MSD MSD

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

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

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

**Matrix: Solid** 

**Analysis Batch: 20030** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20026

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 11:45	1

MB MB

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

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

**Matrix: Solid** 

**Analysis Batch: 20030** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 20026

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

Client: WSP USA Inc. Job ID: 890-1972-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.3029.task09.02

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

LCS LCS

Lab Sample ID: LCS 880-20026/2-A **Matrix: Solid** 

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

Analysis Batch: 20030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20026

Surrogate %Recovery Qualifier

Limits 1-Chlorooctane 101 70 - 130 o-Terphenyl 106 70 - 130

Client Sample ID: Lab Control Sample Dup

Prep Batch: 20026

**Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 20030** Spike LCSD LCSD %Rec. RPD

Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit 1000 802.5 80 70 - 1306 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 986.2 99 mg/Kg 70 - 1306 20 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 100 70 - 130 1-Chlorooctane 106 70 - 130 o-Terphenyl

Lab Sample ID: 890-1972-1 MS **Client Sample ID: SS01 Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 20030** Prep Batch: 20026

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

C10-C28)

MS MS %Recovery Qualifier Surrogate Limits 70 - 130 1-Chlorooctane 70 60 S1o-Terphenyl 70 - 130

Lab Sample ID: 890-1972-1 MSD Client Sample ID: SS01

**Matrix: Solid** Prep Type: Total/NA Analysis Batch: 20030 Prep Batch: 20026

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

C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 1-Chlorooctane 72 70 - 130 61 S1-70 - 130 o-Terphenyl

 Client: WSP USA Inc.
 Job ID: 890-1972-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.3029.task09.02

Method: 300.0 - Anions, Ion Chromatography

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

Matrix: Solid

**Analysis Batch: 20072** 

Client Sample ID: Method Blank
Prep Type: Soluble

 MB

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 Chloride
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 U
 5.00
 mg/Kg
 02/23/22 15:03
 1

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

Matrix: Solid

Client Sample ID: Lab Control Sample

Prep Type: Soluble

**Analysis Batch: 20072** 

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

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

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Soluble

**Analysis Batch: 20072** 

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 245.9 mg/Kg 90 - 110

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

Matrix: Solid

**Analysis Batch: 20072** 

MS MS Sample Sample Spike %Rec. Analyte Result Qualifier Added Qualifier %Rec Result Unit Limits Chloride 8.48 250 247.8 90 - 110 mg/Kg

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

Matrix: Solid

**Analysis Batch: 20072** 

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 8.48 255.8 mg/Kg 99 90 - 110 20

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Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Soluble** 

**Prep Type: Soluble** 

# **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-1972-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.3029.task09.02

# **GC VOA**

# Prep Batch: 19725

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

# Analysis Batch: 20287

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

# **Analysis Batch: 20372**

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

# **GC Semi VOA**

# Prep Batch: 20026

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

# Analysis Batch: 20030

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

**Eurofins Carlsbad** 

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# **QC Association Summary**

Client: WSP USA Inc. Job ID: 890-1972-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.3029.task09.02

# GC Semi VOA

# **Analysis Batch: 20120**

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

# **HPLC/IC**

### Leach Batch: 19900

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

## **Analysis Batch: 20072**

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

Client: WSP USA Inc.

Job ID: 890-1972-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.3029.task09.02

**Client Sample ID: SS01** 

Date Received: 02/17/22 16:32

Lab Sample ID: 890-1972-1 Date Collected: 02/17/22 10:20

**Matrix: Solid** 

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

Lab Sample ID: 890-1972-2 **Client Sample ID: SS02** 

Date Collected: 02/17/22 10:24 **Matrix: Solid** 

Date Received: 02/17/22 16:32

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

**Client Sample ID: SS03** Lab Sample ID: 890-1972-3

Date Collected: 02/17/22 10:30 **Matrix: Solid** Date Received: 02/17/22 16:32

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

**Laboratory References:** 

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

# **Accreditation/Certification Summary**

Client: WSP USA Inc. Job ID: 890-1972-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.3029.task09.02

# **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report, bu	ut the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo
the agency does not of	fer certification.			
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	
9 ,		Matrix Solid	Analyte Total TPH	

# **Method Summary**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1

SDG: 31403236.3029.task09.02

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
3015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

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

**Eurofins Carlsbad** 

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# Sample Summary

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1972-1

SDG: 31403236.3029.task09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	[
890-1972-1	SS01	Solid	02/17/22 10:20	02/17/22 16:32	0.
890-1972-2	SS02	Solid	02/17/22 10:24	02/17/22 16:32	0.5
890-1972-3	SS03	Solid	02/17/22 10:30	02/17/22 16:32	0.5

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# Chain of Custody

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EQUEST  Reporting:Level III Devel III ST/UST  Deliverables: EDD	to circumstances beyond the control unless previously negotiated.	zed. These terms will be enforce	s incurred by but not analy	itted to Xenco,	bility for any loss ch sample subm	sume any responsil charge of \$5 for ear	s and shall not as ach project and a	y for the cost of sample 5.00 will be applied to e	will be liable onl	Service. Xenco Xenco. A minim
Address:   3/04 E   Green Street   State of Project:   Carly State   ZiP:   Carly State   Z	gns standard terms and conditions	liates and subcontractors. It ass	(enco, its affi	it company to )	order from clier	es a valid purchase	samples constitut	and relinquishment of	of this documen	otice: Signature
State of Project:   City, State ZIP:   Carishad, NM 88220   Cary, State ZIP:   Carishad, NM 88220   Cary, State ZIP:   Cary,	1631 / 245.1 / 747	d Cr Co Cu Pb Mn N	Ba Be C		010: 8RCR	CLP / SPLP 6	9	Circle Method(s) and Metal(s) to be analyzed	ethod(s) and	Circle M
Address:   3/04 E Green Street   City, State ziP:   Carisbad, NM 88220   Reporting:Level II   Level III   Level	K Se Ag SiO2 Na Sr Tl Sn U	Cd Ca	P	Sh As	- 11	ll l	8BC	200 B / 6020:	7/6010	Total 200 7 / 6010
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Address:										
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Address:   3104 E Green Street										
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Address:   3104 E Green Street   City, State of Project:   Carisbad, NM 88220   Reporting:Level II   Level III   ST/UST	Discr		$\dashv$	<			00/17/00	0	6033	
Address:   3104 E Green Street   City, State ZIP:   Carlsbad, NM 88220   City, State ZIP:   Carlsbad, NM 88220   City, State ZIP:   City, State ZIP:   Carlsbad, NM 88220   City, State ZIP:   City, State of Project:   Reporting:Level II	Discr		-	×			02/17/22	S	SS02	
Address:   3104 E Green Street   City, State ZIP:   Carlsbad, NM 88220   Reporting:Level III	Discr		-				02/17/22	S	SS01	
Address: 3104 E Green Street Street Street State of Project:  City, State ZIP: Carlsbad, NM 88220  Email: amy.ruth@exxonmobil.com.aimee.cole@wsp.com  Turn Around  Rush:  Due Date:  Date of Project:  Reporting:Level III	Sample Co			TPH (I			Date Sampled	on Matrix	Sample Identification	Sampi
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Address: 3104 E Green Street Street Reporting:Level III ST/UST  City, State ZIP: Carlsbad, NM 88220  Email: amv.ruth@exxonmobil.com.aimee.cole@wsp.com  Turn Around  ANALYSIS REQUEST  ANALYSIS REQUEST  Due Date:  Due Date:  No Wet Ice: Yes No in the mometer ID in the mometer ID in the mometer ID in the mometer ID in the momentary ID in the moment ID in the momen	a second		-	5)		_	1	es N	H	Received Intact:
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Address: 3104 E Green Street  City, State ZIP: Carisbad. NM 88220  Email: amv.ruth@exxonmobil.com.aimee.cole@wsp.com  Turn Around  Po.02 Routine					8		(Yes) No	Ten	-	SAMPLE RECEIPT
Address: 3104 E Green Street State of Project:  City, State ZIP: Carlsbad, NM 88220 Reporting:Level III ST/UST  Email: amy.ruth@exxonmobil.com,aimee.cole@wsp.com  Turn Around  ANALYSIS REQUEST  ANALYSIS REQUEST			_			Due Date		Mercy Rotich.		sampler's Name:
Address: 3104 E Green Street Street Street Street Street City, State ZIP: Carlsbad, NM 88220 Reporting:Level II ST/UST  Turn Around Analysis REQUEST  ANALYSIS REQUEST	AFE:DU.201	-				Hush:		NAPP2201944299	NAPP	O. Number:
Address:  Address:  City, State ZIP:  Carlsbad, NM 88220  Email: amy.ruth@exxonmobil.com.aimee.cole@wsp.com  Turn Around  ANALYSIS REQUEST  State of Project:  Reporting:Level II Level III ST/UST RRP vel IV  Deliverables: EDD ADaPT Other:  Work Order Note					Ø	Routine	ask 09.02	31403236.029 Task 09.02	15	roject Number:
Address:  City, State ZIP: Carlsbad, NM 88220  Email: amv.ruth@exxonmobil.com,aimee.cole@wsp.com  State of Project:  Reporting:Level II					round	Turn A		Corral Canyon 5-32	Corral	roject Name:
Address: 3104 E Green Street State of Project:  City, State ZIP: Carlsbad, NM 88220 Reporting:Level II Level III ST/UST RRP Livel IV	ADAT	ole@wsp.com	n,aimee.cc	nmobil.com	y.ruth@exxo	Email: am		989 854 0852	989 88	hone:
3104 E Green Street  State of Project:		0	, NM 88220	Carlsbad	State ZIP:	City	8220	Carlsbad, New Mexico 88220		City, State ZIP:
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XTO Energy Program: UST/PST PRP Brownfields	□PRP □Brownfields □RC		rgy	XTO Ene	Company Name:	Con		USA	ie: WSP USA	Company Name:
Bill to: (il different) Amy Ruth Work Order Comments	Work Order Comments		h	Amy Rut	to: (il different)	Bill		Belill, Benjamin		roject Manager:
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com <sup>2</sup> age1of1	www.xenco.com	\ (770-449-8800) Tampa,FL (	) Atlanta,GA	480-355-0900	) Phoenix,AZ (	IM (575-392-7550	Hobbs,		'	1

Work Order No:

**Eurofins Carlsbad** 

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Canal St.  NM 88220  575-988-3199 Fax 575-988-3199  Information (Sub Contract Lab)  tact  ### Application of the Contract Lab ### Applicat	Sampler Phone: Place Requested: 2/23/2022 TAT Requested (days):	Chain of Custody Record  Lab PM Kramer, Jessicz E-Mait jessica:kramer@ Accreditation NELAP - L ted:		Lab PM Kramer, E-Mali: jessica-k	Accreditations Required (See not NELAP - Louisiana, NELAP	a @eurofi ss Requiri	nset c	com e note): ELAP - T	Carrier Tra State of Or New Mey AP - Texas  AP - Texas	Carrier State o New	그 [스종]의 ==	king No(s		]		COC Nor 890-631 1 Page 1 of 1 Job #: 890-1972-1 890-1972-1	Codes	America America N Hexane
lland 	TAT Requested (da	ys):					le								11.77	B NAOH C Zn Acetate D - Nitric Acid E NaHSO4 F - MeOH G - Amchlor H Assorbic Acid	ά	N N N N N N N N N N N N N N N N N N N
Email Project Name	WO#: Project#				or No)								*****			I - Ice J DI Water K EDTA		V - MCAA W pH 4-5
yon 5-32	Project # 89000004				es or										taine	L EDA		Z - other (specify)
Site:	SSOW#:				SD (Y											Other:		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp,	Matrix (W=water S=solid, O=waste/oll, BT=Tissue, A=Air)	Field Filtered S Perform MS/MS 8015MOD_NM/80	8015MOD_Calc	300_ORGFM_28D 8021B/6036FP_C	Total_BTEX_GCV					······		Total Number o	Specia	il Inst	Special Instructions/Note:
	$\left\langle \cdot \right\rangle$	X	1030364	ion Code:	X		Supplied.	3-350	7			7			X		W	
SS01 (890-1972-1)	2/17/22	10 20 Mountain		Solid	×	×	×	×							Ļ			
SS02 (890-1972-2)	2/17/22	10 24 Mountain		Solid	×	×	×	×							-,			
SS03 (890-1972-3)	2/17/22	10 30 Mountain		Solid	×	×	×	×	_		$\dashv$		$\dashv$		٠.			
											+	+						
Note: Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC attention immediately.	Testing South Centra ve for analysis/tests/ tral, LLC attention im	al, LLC places t matrix being ar mediately If al	the ownership on the salyzed, the salyzed, the sall requested ac	of method anal mples must be creditations are	yte & accrec shipped bac current to d	itation co	mplianc urofins	e upon or Environm Jned Chai	ut subcon ent Testii	tract lab	oratorie Centra sting to	s This LLC1	sampl	e ship	ment other Eurof	is forwarded und instructions will I	der cha be prov	ain-of-custod vided Any o
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Custody Seals Intact Custody Seal No					S	Cooler Temperature(	perature	s) °C	and Other Remarks	emarks.		ł	ı	- 1	ı	- Andreas de la company de		

# **Login Sample Receipt Checklist**

 Client: WSP USA Inc.
 Job Number: 890-1972-1

 SDG Number: 31403236.3029.task09.02

3DG Nulliber. 31403230.3029.lask09.02

Login Number: 1972 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

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# **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-1972-1

SDG Number: 31403236.3029.task09.02

Login Number: 1972 **List Source: Eurofins Midland** List Number: 2 Creator: Teel, Brianna

List Creation: 02/21/22 08:09 AM

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

<6mm (1/4").



# **Environment Testing America**

# **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-1974-1

Laboratory Sample Delivery Group: 31403236.029 task09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

JURAMER

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

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

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Client: WSP USA Inc. Project/Site: Corral Canyon 5-32 Laboratory Job ID: 890-1974-1 SDG: 31403236.029 task09.02

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# **Definitions/Glossary**

 Client: WSP USA Inc.
 Job ID: 890-1974-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 task09.02

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### **Qualifiers**

# **GC VOA**

Qualifier Description

U Indicates the analyte was analyzed for but not detected.

# **GC Semi VOA**

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

### HPLC/IC

Qualifier Qualifier Description

F1 MS and/or MSD recovery exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

# Glossary

Abbreviation	These commonly	used abbreviations may	or may	not he	nresent in this report
ADDIEVIALIOII	These common	useu abbi eviations ma	y Oi illay	IIOL DE	present in this report.

Eisted 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
POS Present Operation

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

**Eurofins Carlsbad** 

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**5** 

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# **Case Narrative**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1

SDG: 31403236.029 task09.02

Job ID: 890-1974-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-1974-1

### Receipt

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

### **GC VOA**

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

#### GC Semi VOA

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

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

### HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19898 and analytical batch 880-19941 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Matrix: Solid

Lab Sample ID: 890-1974-1

# **Client Sample Results**

Job ID: 890-1974-1 Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32 SDG: 31403236.029 task09.02

Date Collected: 02/17/22 10:40 Date Received: 02/17/22 16:33

**Client Sample ID: SS05** 

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		02/25/22 16:00	02/27/22 07:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130			02/25/22 16:00	02/27/22 07:28	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/25/22 16:00	02/27/22 07:28	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
•				mg/Kg				
Method: 8015 NM - Diesel Range	•							
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/23/22 09:21	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:28	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:28	1
5 5 ,	<50.0 <50.0		50.0 50.0	mg/Kg mg/Kg		02/22/22 09:05	02/22/22 15:28	1
C10-C28)								1
C10-C28) OII Range Organics (Over C28-C36)	<50.0	U	50.0			02/22/22 09:05	02/22/22 15:28	1 1 1 <i>Dil Fac</i>
C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	<50.0 <b>%Recovery</b> 60	∪ <i>Qualifier</i>	50.0			02/22/22 09:05  Prepared	02/22/22 15:28  Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<50.0  **Recovery 60 66	Qualifier S1- S1-	50.0  Limits  70 - 130			02/22/22 09:05  Prepared 02/22/22 09:05	02/22/22 15:28  Analyzed  02/22/22 15:28	1 1 1 1 Dil Fac
C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<50.0  **Recovery 60 66  omatography -	Qualifier S1- S1-	50.0  Limits  70 - 130		<u>D</u>	02/22/22 09:05  Prepared 02/22/22 09:05	02/22/22 15:28  Analyzed  02/22/22 15:28	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

# **Surrogate Summary**

Client: WSP USA Inc. Job ID: 890-1974-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-1974-1	SS05	104	97	
890-1974-1 MS	SS05	103	101	
890-1974-1 MSD	SS05	98	100	
LCS 880-20241/1-A	Lab Control Sample	104	101	
LCSD 880-20241/2-A	Lab Control Sample Dup	100	101	
MB 880-20241/5-A	Method Blank	99	94	
MB 880-20317/5-A	Method Blank	100	96	

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

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

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

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-1972-A-1-F MS	Matrix Spike	70	60 S1-	
890-1972-A-1-G MSD	Matrix Spike Duplicate	72	61 S1-	
890-1974-1	SS05	60 S1-	66 S1-	
LCS 880-20026/2-A	Lab Control Sample	101	106	
LCSD 880-20026/3-A	Lab Control Sample Dup	100	106	
MB 880-20026/1-A	Method Blank	75	91	
Surrogate Legend				

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-1974-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 task09.02

Method: 8021B - Volatile Organic Compounds (GC)

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

**Matrix: Solid** 

Analysis Batch: 20289

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20241

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

MB MB

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

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

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20241

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

LCS LCS

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

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

Matrix: Solid

Analysis Batch: 20289

Client Sample ID: Lab Control Sample Dup	Client Sam	ple ID: Lab	<b>Control Sam</b>	ple Dup
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Prep Type: Total/NA

Prep Batch: 20241

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

LCSD LCSD

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

Lab Sample ID: 890-1974-1 MS

**Matrix: Solid** 

**Analysis Batch: 20289** 

**Client Sample ID: SS05** Prep Type: Total/NA

Prep Batch: 20241

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

Client: WSP USA Inc. Job ID: 890-1974-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 task09.02

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

Lab Sample ID: 890-1974-1 MS **Matrix: Solid** 

Analysis Batch: 20289									Prep	Batch: 20241
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00198	U	0.0990	0.1053		mg/Kg		106	70 - 130	
m-Xylene & p-Xylene	<0.00397	U	0.198	0.2187		mg/Kg		110	70 - 130	
o-Xylene	<0.00198	U	0.0990	0.1077		mg/Kg		109	70 - 130	

MS MS

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

Lab Sample ID: 890-1974-1 MSD

**Matrix: Solid** 

**Analysis Batch: 20289** 

Client Sample ID: SS05 Prep Type: Total/NA Prep Batch: 20241

Client Sample ID: SS05

Prep Type: Total/NA

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

MSD MSD

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

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

**Matrix: Solid** 

Xylenes, Total

**Analysis Batch: 20289** 

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

Prep Batch: 20317

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

0.00400

mg/Kg

MB MB

<0.00400 U

MB MB

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

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

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

**Matrix: Solid** 

Analysis Batch: 20030

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

02/26/22 20:13

02/25/22 12:16

Prep Batch: 20026

мв мв Analyte Result Qualifier RL Unit Prepared Analyzed <50.0 U 50.0 mg/Kg 02/22/22 09:05 02/22/22 11:45 Gasoline Range Organics

(GRO)-C6-C10

 Client: WSP USA Inc.
 Job ID: 890-1974-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 task09.02

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

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

Matrix: Solid

Analysis Batch: 20030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20026

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

o-Terphenyl Lab Sample ID: LCS 880-20026/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 20030 Prep Batch: 20026 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 849.9 85 70 - 130 mg/Kg (GRO)-C6-C10 1000 1050 Diesel Range Organics (Over mg/Kg 105 70 - 130C10-C28) LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 70 - 130 101 o-Terphenyl 106 70 - 130

Lab Sample ID: LCSD 880-20026/3-A Client Sample ID: Lab Control Sample Dup Matrix: Solid Prep Type: Total/NA **Analysis Batch: 20030** Prep Batch: 20026 Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier %Rec Limits RPD Limit Analyte Unit D Gasoline Range Organics 1000 802.5 mg/Kg 80 70 - 130 6 20 (GRO)-C6-C10

986.2

mg/Kg

99

70 - 130

6

20

1000

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: 890-1972-A-1-F MS
Client Sample ID: Matrix Spike
Matrix: Solid
Analysis Batch: 20030
Prep Batch: 20026

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

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	70		70 - 130
o-Terphenyl	60	S1-	70 - 130

**Eurofins Carlsbad** 

Diesel Range Organics (Over

C10-C28)

C10-C28)

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

# QC Sample Results

Client: WSP USA Inc. Job ID: 890-1974-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 task09.02

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 20026

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

C10-C28)

**Matrix: Solid** 

Analysis Batch: 20030

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	72		70 - 130
o-Terphenyl	61	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19898/1-A Client Sample ID: Method Blank

Matrix: Solid **Prep Type: Soluble** 

Analysis Batch: 19941

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/22/22 17:13	1

Lab Sample ID: LCS 880-19898/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble** 

**Analysis Batch: 19941** 

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

Lab Sample ID: LCSD 880-19898/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble** 

Analysis Batch: 19941

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	258.5		mg/Kg		103	90 - 110	0	20	

Lab Sample ID: 890-1978-A-1-F MS Client Sample ID: Matrix Spike **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 19941

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	491	F1	252	809.2	F1	ma/Ka		126	90 110	 

Lab Sample ID: 890-1978-A-1-G MSD Client Sample ID: Matrix Spike Duplicate **Prep Type: Soluble** 

**Matrix: Solid** 

Analysis Batch: 19941

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	491	F1	252	834.6	F1	mg/Kg		136	90 - 110	3	20

# **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-1974-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 task09.02

# **GC VOA**

# Prep Batch: 20241

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

# Analysis Batch: 20289

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

# Prep Batch: 20317

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

# Analysis Batch: 20475

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

# **GC Semi VOA**

# Prep Batch: 20026

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

# **Analysis Batch: 20030**

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

# Analysis Batch: 20122

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

# **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-1974-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 task09.02

HPLC/IC

Leach Batch: 19898

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

Analysis Batch: 19941

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

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Date Received: 02/17/22 16:33

# **Lab Chronicle**

Client: WSP USA Inc. Job ID: 890-1974-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 task09.02

**Client Sample ID: SS05** Lab Sample ID: 890-1974-1 Date Collected: 02/17/22 10:40 Matrix: Solid

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

### **Laboratory References:**

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

#### **Accreditation/Certification Summary**

 Client: WSP USA Inc.
 Job ID: 890-1974-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 task09.02

#### **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report, bu	it the laboratory is not certif	ied by the governing authority. This list ma	av include analytes for wh
the agency does not of	fer certification.	•	, , ,	.,
the agency does not of Analysis Method	fer certification. Prep Method	Matrix	Analyte	-,
0 ,		Matrix Solid	Analyte Total TPH	

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#### **Method Summary**

Client: WSP USA Inc.

Job ID: 890-1974-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.029 task09.02

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

#### Sample Summary

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1974-1

SDG: 31403236.029 task09.02

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

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				Chain of Custody	ody	Work Order No:	
XII	XIINCO	т	ouston,TX (281) 240-42	Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334	ntonio,TX (210) 509-3334		
LAGIC	RATORIES	Hobbs,NM (5	Midland,TX (432-704-54 75-392-7550) Phoenix, <i>!</i>	Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock, IX (806)/94-1296 Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (8	oock, I X (806) / 94-1296 49-8800)   Tampa,FL (813-620-2000)	www.xenco.com	Page1of1
Project Manager: Bel	Belill, Benjamin		Bill to: (if different)	nt) Amy Ruth		Work Order Comments	omments
	WSP USA		Company Name:	ne: XTO Energy	Progra	Program: UST/PST ☐PRP ☐Brownfields	elds ☐RC ☐uperfund ☐
	508 West Stevens Street	eet	Address:		Sta	State of Project:	
e ZIP:	Carlsbad, New Mexico 88220	88220	City, State ZIP:	Carlsbad, NM 88220	Report	Reporting:Level II Level III ST/UST	ST TRP [wellV ]
	989 854 0852		Email: amy.ruth@e	Email: amy.ruth@exxonmobil.com,aimee.cole@wsp.com		Deliverables: EDD ADaPT	Other:
Name:	Corral Canyon 5-32		Turn Around		ANALYSIS REQUEST		Work Order Notes
Project Number:	31403236.029 Task 09.02	Task 09.02	Routine 🗹				
	NAPP2201944299		Rush:		_		AFE:DD.2017.04580.CAP.
Sampler's Name: Me	Mercy Rotich.		Due Date:				CMP.01
SAMPLE RECEIPT	Temp Blank:	(S) No	Wet Ice: (res) No				
Temperature (°C):	3017.8	Thermo	Thermometer ID		890-1974 Chain of Custody		
Received Intact:	es	1-1		5) 8021	- 1		
Sample Custody Seals:	Yes No N/A	Total Containers:	ainers:	A 80°			lab, if received by 4:30pm
Sample Identification	ation Matrix	Date Sampled	Time Depth	Numbe TPH (EP BTEX (E			Sample Comments
SS05	S	10	10:40 0.5'	×			Discrete
			0.0				
Total 200.7 / 6010 Circle Method(s) a	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	<u>۾</u>	RCRA 13PPM Texas 11 AI	Sb As Ba Sb As Ba	Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	i K Se Ag SiO2	Na Sr TI Sn U V Zn 1631/245.1/7470/7471:Hg
Notice: Signature of this docur of service. Xenco will be liable of Xenco. A minimum charge o	nent and relinquishment only for the cost of samp of \$75.00 will be applied to	of samples constitutes a voles and shall not assume or each project and a chargo	alid purchase order from any responsibility for any se of \$5 for each sample si	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	d subcontractors. It assigns standard nt if such losses are due to circumstanc se terms will be enforced unless previo	It assigns standard terms and conditions e due to circumstances beyond the control nforced unless previously negotiated.	
Relinquished by: (Signature)	ignature)	Received by: (Signature)	ignature)	Date/Time Re	Relinquished by: (Signature)	Received by: (Signature)	a) Date/Time
Mula	4	Ath		2/17/22 4:33°			
				D 4			

1089 N Canal St

**Eurofins Carlsbad** 

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# Chain of Custody Record

🧱 eurofins

Environment Testing

State Zip: TX, 79701 Sample Identification - Client ID (Lab ID) SS05 (890-1974-1) Carlsbad, NM 88220 Phone. 575-988-3199 Fax: 575-988-3199 Deliverable Requested I, II III IV Other (specify) vote: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central. LLC alboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central. LLC. Corral Canyon 5-32 432-704-5440(Tel) Midland Empty Kit Relinquished by ossible Hazard Identification 1211 W Florida Ave Eurofins Environment Testing South Centr roject Name linquished by: Custody Seals Intact. linquished by linquished by: iipping/Receiving lient Information ∆ Yes ∆ No ટ્ર (Sub Contract Lab) Custody Seal No D **(2**) \$ :00 Project #: 89000004 Due Date Requested 2/23/2022 Sample Primary Deliverable Rank. 2 TAT Requested (days) Date/Time Date/Time 2/17/22 Date Mountain Sample 10 40 Time (C=comp, Preservation Code: G=grab) Sample Type Company Company Matrix Solid jessica kramer@eurofinset.com Kramer, Jessica Mai NELAP - Louisiana NELAP - Texas Time Perform MS/MSD (Yes or No) Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Special Instructions/QC Requirements × 8015MOD\_NM/8015NM\_S\_Prep (MOD) Full TPH Cooler Temperature(s) °C and Other Remarks. Received by × 8015MOD\_Calc 300\_ORGFM\_28D/DI\_LEACH Chloride 8021B/5035FP\_Calc (MOD) BTEX × Analysis Requested Total\_BTEX\_GCV × State of Origin

New Mexico Carrier Tracking No(s) Archive For **Total Number of containers** A HCL B NaOH C. Zn Acetate D Nitric Acid E - NaHSO4 F MeDOH G Amchlor H Ascorbic Acid I Ice J- DI Water K EDTA L-EDA COC No: 890-631 1 890-1974-1 Preservation Cod Page: Page 1 of 1 Special Instructions/Note M Hexane
N None
O - AsNaO2
P NaZO4S
Q - NaZSO3
R NaZSO3
S H2SO4
T TSP Dodecahydrate
U Acetone
U Acetone
V - MCAA
W pH 4-5
Z ofter (specify) Company Company Company Months

Ver: 06/08/2021

#### **Login Sample Receipt Checklist**

Client: WSP USA Inc.

Job Number: 890-1974-1

SDG Number: 31403236.029 task09.02

Login Number: 1974 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

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Containers are not broken or leaking.

Sample bottles are completely filled.

Sample Preservation Verified.

MS/MSDs

<6mm (1/4").

Sample collection date/times are provided.

There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

Appropriate sample containers are used.

#### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-1974-1

SDG Number: 31403236.029 task09.02

Login Number: 1974 List Source: Eurofins Midland List Number: 2 List Creation: 02/21/22 08:09 AM Creator: Teel, Brianna

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	

True

True

True

True

True

True

True



## **Environment Testing America**

#### **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-1975-1

Laboratory Sample Delivery Group: 31403236.029task0902

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

MRAMER

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

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 4/20/2022 9:01:53 AM

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.

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Client: WSP USA Inc. Project/Site: Corral Canyon 5-32 Laboratory Job ID: 890-1975-1 SDG: 31403236.029task0902

#### **Table of Contents**

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#### **Definitions/Glossary**

Client: WSP USA Inc. Job ID: 890-1975-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029task0902

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

HPLC/IC

Qualifier **Qualifier Description** 

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

**Glossary** 

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor** 

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML 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 Positive / Present POS **PQL Practical Quantitation Limit** 

**PRES** Presumptive

QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### **Case Narrative**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

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

Job ID: 890-1975-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-1975-1

#### Receipt

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

#### **GC VOA**

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

#### GC Semi VOA

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

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

#### HPLC/IC

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19898 and analytical batch 880-19941 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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#### **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-1975-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029task0902

Client Sample ID: SS06

122

Lab Sample ID: 890-1975-1

Matrix: Solid

Date Received: 02/17/22 16:33 Sample Depth: 0.5

Chloride

Date Collected: 02/17/22 10:44

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	
Toluene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/24/22 07:45	02/24/22 11:52	
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/24/22 07:45	02/24/22 11:52	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/24/22 07:45	02/24/22 11:52	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	117		70 - 130			02/24/22 07:45	02/24/22 11:52	
1,4-Difluorobenzene (Surr)	92		70 - 130			02/24/22 07:45	02/24/22 11:52	
· Method: Total BTEX - Total BTEX	( Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/24/22 16:58	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<50.0	U	50.0	mg/Kg			02/23/22 09:21	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:49	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:49	
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/22/22 09:05	02/22/22 15:49	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	61	S1-	70 - 130			02/22/22 09:05	02/22/22 15:49	
o-Terphenyl	67	S1-	70 - 130			02/22/22 09:05	02/22/22 15:49	
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
ranaryto	rtoouit	Qualifici		Oilit		ricparca	Allalyzou	Dil Fa

4.98

mg/Kg

Eurofins Carlsbad

02/22/22 17:57

#### **Surrogate Summary**

 Client: WSP USA Inc.
 Job ID: 890-1975-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029task0902

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate R
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-1948-A-1-J MS	Matrix Spike	97	97	
890-1948-A-1-K MSD	Matrix Spike Duplicate	98	98	
890-1975-1	SS06	117	92	
LCS 880-19723/1-A	Lab Control Sample	97	97	
LCSD 880-19723/2-A	Lab Control Sample Dup	99	98	
MB 880-19723/5-A	Method Blank	99	95	
Surrogate Legend				
BFB = 4-Bromofluorobenze	ne (Surr)			
DFBZ = 1,4-Difluorobenzen	e (Surr)			

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

Matrix: Solid Prep Type: Total/NA

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

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-1975-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029task0902

Method: 8021B - Volatile Organic Compounds (GC)

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

**Matrix: Solid** Analysis Batch: 20184 Prep Type: Total/NA

Prep Batch: 19723 MD ME

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

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

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

**Matrix: Solid** 

Analysis Batch: 20184

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Batch: 19723

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

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

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

**Matrix: Solid** 

Analysis Batch: 20184

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

Prep Batch: 19723

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

	LCSD L	CSD	
Surrogate	%Recovery Q	ualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

**Matrix: Solid** 

Analysis Batch: 20184

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

Prep Batch: 19723

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits U

0.0996 110 Benzene <0.00200 0.1097 mg/Kg 70 - 130 Toluene <0.00200 U 0.0996 0.1098 mg/Kg 110 70 - 130

Client: WSP USA Inc. Job ID: 890-1975-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029task0902

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

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

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

**Matrix: Solid** 

Analysis Batch: 20184

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19723

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

MS MS

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19723

**Matrix: Solid** Analysis Batch: 20184 Sample Sample Spike MSD MSD %Rec. RPD

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

MSD MSD

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

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

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

**Matrix: Solid** 

**Analysis Batch: 20030** 

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 20026

Result Qualifier RL Unit D Prepared Dil Fac Analyte Analyzed 50.0 02/22/22 09:05 02/22/22 11:45 <50.0 U Gasoline Range Organics mg/Kg (GRO)-C6-C10 02/22/22 09:05 02/22/22 11:45 Diesel Range Organics (Over <50.0 U 50.0 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 02/22/22 09:05 02/22/22 11:45 mg/Kg

MB MB

мв мв

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

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

**Matrix: Solid** 

**Analysis Batch: 20030** 

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Prep Batch: 20026

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

Client: WSP USA Inc. Job ID: 890-1975-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029task0902

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

LCS LCS

%Recovery Qualifier

101

106

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

**Matrix: Solid** 

Analysis Batch: 20030

Surrogate

o-Terphenyl

1-Chlorooctane

Prep Type: Total/NA

Prep Batch: 20026

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

Limits

70 - 130

70 - 130

**Matrix: Solid** 

**Analysis Batch: 20030** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20026

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 802.5 80 70 - 1306 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 986.2 99 mg/Kg 70 - 1306 20 C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 100 70 - 130 1-Chlorooctane o-Terphenyl 106 70 - 130

Lab Sample ID: 890-1972-A-1-F MS Client Sample ID: Matrix Spike

MS MS

**Matrix: Solid** 

**Analysis Batch: 20030** 

Prep Type: Total/NA

Prep Batch: 20026

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

Spike

MS MS Surrogate %Recovery Qualifier Limits 70 - 130 1-Chlorooctane 70 60 S1o-Terphenyl 70 - 130

Lab Sample ID: 890-1972-A-1-G MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

Analysis Batch: 20030

Prep Type: Total/NA

Prep Batch: 20026

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

MSD MSD

Sample Sample

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	72		70 - 130
o-Terphenyl	61	S1-	70 - 130

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

**Prep Type: Soluble** 

Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

#### **QC Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-1975-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029task0902

Method: 300.0 - Anions, Ion Chromatography

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

Matrix: Solid

Analysis Batch: 19941

MB MB

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Chloride
 <5.00</td>
 U
 5.00
 mg/Kg
 02/22/22 17:13
 1

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

Matrix: Solid

**Analysis Batch: 19941** 

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

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

Matrix: Solid

Analysis Batch: 19941

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 258.5 mg/Kg 103 90 - 110

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

Matrix: Solid

Analysis Batch: 19941

Spike MS MS Sample Sample %Rec. Analyte Result Qualifier Added Result Qualifier %Rec Unit Limits 252 809.2 F1 Chloride 491 F1 126 90 - 110 mg/Kg

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

Matrix: Solid

Analysis Batch: 19941

Sample Sample Spike MSD MSD %Rec. RPD Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits RPD Limit Chloride 491 F1 252 834.6 F1 mg/Kg 136 90 - 110 20

#### **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-1975-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029task0902

**GC VOA** 

Prep Batch: 19723

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

#### Analysis Batch: 20184

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

#### Analysis Batch: 20261

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

#### **GC Semi VOA**

#### Prep Batch: 20026

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

#### **Analysis Batch: 20030**

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

#### Analysis Batch: 20123

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

#### HPLC/IC

#### Leach Batch: 19898

Released to Imaging: 4/20/2022 9:01:53 AM

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

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#### **QC Association Summary**

Client: WSP USA Inc. Job ID: 890-1975-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029task0902

#### **HPLC/IC (Continued)**

#### Leach Batch: 19898 (Continued)

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

#### Analysis Batch: 19941

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

#### **Lab Chronicle**

Client: WSP USA Inc. Job ID: 890-1975-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029task0902

**Client Sample ID: SS06** Lab Sample ID: 890-1975-1 Date Collected: 02/17/22 10:44

Matrix: Solid

Date Received: 02/17/22 16:33

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

#### **Laboratory References:**

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

#### **Accreditation/Certification Summary**

 Client: WSP USA Inc.
 Job ID: 890-1975-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029task0902

#### **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report by			and the state of the contract
the agency does not of	• '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes for
,	• '	Matrix	ed by the governing authority. This list ma	ay include analytes for
the agency does not of	fer certification.	•	, , ,	ay include analytes for

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#### **Method Summary**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1

SDG: 31403236.029task0902

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

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#### Sample Summary

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1975-1

SDG: 31403236.029task0902

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

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## Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

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	117/22 2	2	1 Br	1	1 House
ure) Received by: (Signature) Date/Time	Date/Time Relinquished by: (Signature)	gnature)	Received by: (Signature)	y: (Signature)	Relinquished by: (Signature)
It assigns standard terms and conditions for due to circumstances beyond the control forced unless previously negotiated.	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and condition 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 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 cost of samples of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	lid purchase order from clien ny responsibility for any loss of \$5 for each sample submi	samples constitutes a va s and shall not assume a sch project and a charge	document and relinquishment of s I liable only for the cost of samples arge of \$75.00 will be applied to ea	Notice: Signature of this of service. Xenco will be of Xenco. A minimum c
vi Se Ag Tl ∪ 1631/245.1/7470 /7471 : Hg	11 11>	TCLP / SPLP 6010: 8RCRA	alyzed TCLP	Circle Method(s) and Metal(s) to be analyzed	Circle Metho
Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb	13PPM Texas 11 /	8RCRA	010 200.8 / 6020:	Total 200.7 / 6010
Discrete	$\vdash$	0.5'	02/17/22 10:44	S	SS06
Sample Comments	TPH (E	oled Depth	Date Time Sampled Sampled	ntification Matrix	Sample Identification
iau, ii ieverveu vy +vyriii	PA (		Total Containers:	als: Yes No (N/A)	Sample Custody Seals:
TAT	8015 \ 0=8	0.1	Correction Factor:	Yes No	Cooler Custody Seals:
890-1975 Chain of Custody	0021)	1	Tida : or	Yes	Received Intact:
			Thermometer ID	3.0 /2.8	Temperature (°C):
		Wet Ice: Xes No	Mes No W	IPT Temp Blank:	SAMPLE RECEIPT
CMP.01		Due Date:		Mercy Rotich.	Sampler's Name:
AFE:DD.2017.04580.CAP.		Rush:		NAPP2201944299	P.O. Number:
		Routine	ask 09.02	31403236.029 Task 09.02	Project Number:
ST Work Order Notes	ANALYSIS REQUEST	Turn Around		Corral Canyon 5-32	Project Name:
Deliverables: EDD	Email: amy.ruth@exxonmobil.com.aimee.cole@wsp.com	mail: amy.ruth@exxor		989 854 0852	Phone:
댶	Carlsbad, NM 88220	City, State ZIP:	8220	Carlsbad, New Mexico 88220	City, State ZIP:
	3104 E Green Street	Address:	t	508 West Stevens Street	Address:
Program: UST/PST ☐PRP ☐Brownfields ☐RC ☐superfund ☐	XTO Energy	Company Name:		WSP USA	Company Name:
Work Order Comments	Amy Ruth	Bill to: (if different)		Belill, Benjamin	Project Manager:
20-2000) www.xenco.com	Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)	3-392-7550) Phoenix,AZ (4	Hobbs,NM (57)		
	Midland TX (432-704-5440) FI Paso TX (915)585-3443 Lubbock TX (806)794-1296	MINN TY (422-704-5440)	2	ARCRATORIES	

Work Order No:

Revised Date 051418 Rev. 2018 1

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Environment Testing America

# 1089 N Canal St. Carlsbad NM 88220 Phone 575-988-3199 Fax 575-988-3199 **Chain of Custody Record**

	Sampler			Lab PM					Car	Carrier Tracking No(s)	cina No(s	۳		ğ	COC No:		
Client Information (Sub Contract Lab)				Kram	Kramer Jessica	ש						•		89	890-631 1		
Client Contact:	Phone:			E-Mail					Sta	State of Origin:	ñ			Page:	ĕ.		
Company				Jessic	Jessica.kramer@eurotinset.com	<i>p</i> euroiii:	et com		Ne Ne	New Mexico	8		l	Pa	Page 1 of 1		
Eurofins Environment Testing South Centr				<del></del> -	NELAP - Louisiana, NELAP	.ouisiana	, NELAF	ve): √P - Texas	u,					Job #:	Job #: 890-1975-1		
Address. 1211 W Florida Ave,	Due Date Requested 2/23/2022	ä					Ana	alvsis Requested	Regue	sted				핗	Preservation Codes	odes	
City: Midland	TAT Requested (days):	ıys):				4	二						T. william	ဂ ဏ >	HCL NaOH	) Z Z	M Hexane N None
State, Zip. TX, 79701					трн									m D (		יין פ	Na2O4S Na2SO3
Phone: 432-704-5440(TeI)	PO#					ie								± G ™	MeOH Amchlor	ıοπ	Na2S2O3 H2SO4
Email	WO #:				lo)	Chloric									I Ice J DI Water	< ⊂ -	U - Acetone  V MCAA
Project Name: Corral Canyon 5-32	Project #: 89000004			Ar	s or l	ACH							ainar	ᆫᆽ	EDTA EDA	N	pH 4-5 other (specify)
Site:	SSOW#:				(Ye	)[_LE								Other:	9		
					MSD (		_Calc	CV							ler.		
Sample Identification - Client ID (1 sh ID)		Sample	Sample Type (C=comp,	,	ield Filtered erform MS/I 015MOD_NM/	016MOD_Calc	021B/6036FP	otal_BTEX_G					otal Number				
		X	05 64		X	20.00						negdel h	4	7		V	Special mendiannone.
SS06 (890-1975-1)	2/17/22	10 44 Mountain		Solid	×	×	×	×									
													17.72	<i>P30</i> 2			
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									<u> </u>		-		5 26 4				:
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rivue. Since lauvaleury accreditation so the student of control of the student of	lesting South Centrove for analysis/tests, tral LLC attention im	al LLC places to matrix being an mediately If all	ne ownership of alyzed the samp requested accre	method analy ples must be s editations are	ie & accredit hipped back current to da	to the Euro te return to	oliance upo ofins Envir ne signed	on out sub conment To Chain of C	contract I esting So bustody a	aboratori uth Centi ttesting to	es This al LLCI said co	sample aborator mplican	shipme y or oth he to Eu	nt is for er insta rofins	nwarded unde ructions will be Environment T	provide esting S	on out subcontract laboratories This sample shipment is forwarded under chain-of-custody. If the ronment Testing South Central. LLC laboratory or other instructions will be provided. Any changes to Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central. LLC.
Possible Hazard Identification Unconfirmed					Sample	Sample Disposal ( A fee may be assessed if samples	al (A fe	e may I	⊔ asse	assessed if san	samp	les an	□ retai	ned	are retained longer than 1 month)	1 1 mo.	nth)
Deliverable Requested   II III IV Other (specify)	Primary Deliverable Rank	able Rank 2			Special	Special Instructions/QC	ons/QC	Requirements	ments.						Š		in Caracia
Empty Kit Relinquished by:		Date.			Time.			-		Metho	Method of Shipment:	ment:					
Relinquished by Um Cup 2-18-22	Date/Time <sup>.</sup>		<u>0</u>	Company	Red	Regive) by:		4		ļ	D <sub>a</sub>	Date/Pine:	4		77	ξ	Company
	Date/Time:		Co	Company	Red	Redeiveorby	4	1			Da	Date/Time	⋠	4		Ş	Company
Relinquished by	Date/Time		00	Company	Rec	Received by					Da	Date/Time:				္ခ်	Company
Custody Seals Intact. Custody Seal No					Coo	Cooler Temperature(s) °C and Other Remarks.	ature(s) °(	and Oth	er Remar	ş,						ŀ	

Ver 06/08/2021

#### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-1975-1

SDG Number: 31403236.029task0902

List Source: Eurofins Carlsbad

Login Number: 1975 List Number: 1 Creator: Clifton, Cloe

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

#### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Nu

Job Number: 890-1975-1

SDG Number: 31403236.029task0902

List Source: Eurofins Midland List Creation: 02/21/22 08:09 AM

Login Number: 1975 List Number: 2 Creator: Teel, Brianna

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

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## **Environment Testing America**

#### **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-1976-1

Laboratory Sample Delivery Group: 31403236.029.task09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Benjamin Belill

JURAMER

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

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

Review your project results through

**Have a Question?** 



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Released to Imaging: 4/20/2022 9:01:53 AM

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.

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Client: WSP USA Inc. Project/Site: Corral Canyon 5-32 Laboratory Job ID: 890-1976-1 SDG: 31403236.029.task09.02

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#### Definitions/Glossary

 Client: WSP USA Inc.
 Job ID: 890-1976-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029.task09.02

#### Qualifiers

#### **GC VOA**

 Qualifier
 Qualifier Description

 F1
 MS and/or MSD recovery exceeds control limits.

 U
 Indicates the analyte was analyzed for but not detected.

#### **GC Semi VOA**

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

#### **HPLC/IC**

F1 MS and/or MSD recovery exceeds control limits.

U Indicates the analyte was analyzed for but not detected.

#### **Glossary**

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Cor

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

 NEG
 Negative / Absent

 POS
 Positive / Present

 PQL
 Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

#### **Case Narrative**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

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

Job ID: 890-1976-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-1976-1

#### Receipt

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

#### **GC VOA**

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

#### GC Semi VOA

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

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

#### HPLC/IC

Method 300 ORGFM 28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-19898 and analytical batch 880-19941 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

#### **Client Sample Results**

 Client: WSP USA Inc.
 Job ID: 890-1976-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029.task09.02

Client Sample ID: SS07

Lab Sample ID: 890-1976-1

Date Collected: 02/17/22 10:54

Date Received: 02/17/22 16:33

Matrix: Solid

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	
Toluene	< 0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/24/22 08:30	02/26/22 13:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			02/24/22 08:30	02/26/22 13:31	1
1,4-Difluorobenzene (Surr)	103		70 - 130			02/24/22 08:30	02/26/22 13:31	1
- Method: Total BTEX - Total BTE)	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/28/22 10:23	1
Analyte	Result	Qualifier	RL	Unit	D	Prepared		
T. ( . ) TD()							Analyzed	
Total TPH	<49.9	U	49.9	mg/Kg	=		02/22/22 16:01	
• ***					=			
Method: 8015B NM - Diesel Rang	ge Organics (D					Prepared		1
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	ge Organics (D	RO) (GC) Qualifier	49.9	mg/Kg		<u> </u>	02/22/22 16:01	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (Di	RO) (GC) Qualifier	49.9	mg/Kg		Prepared	02/22/22 16:01  Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	ge Organics (D Result <49.9	RO) (GC) Qualifier U	49.9  RL 49.9	mg/Kg  Unit  mg/Kg		Prepared 02/21/22 11:35	02/22/22 16:01  Analyzed  02/21/22 23:45	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (DI Result <49.9	RO) (GC) Qualifier U	49.9  RL 49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/21/22 11:35 02/21/22 11:35	02/22/22 16:01  Analyzed  02/21/22 23:45  02/21/22 23:45	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	ge Organics (D) Result <49.9 <49.9	RO) (GC) Qualifier U	49.9  RL 49.9  49.9  49.9	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/21/22 11:35 02/21/22 11:35	02/22/22 16:01  Analyzed 02/21/22 23:45 02/21/22 23:45	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	ge Organics (D)  Result  <49.9  <49.9  <49.9  **Recovery**  59	Qualifier  U  Qualifier	49.9  RL 49.9  49.9  49.9  Limits	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/21/22 11:35 02/21/22 11:35 02/21/22 11:35 Prepared	02/22/22 16:01  Analyzed 02/21/22 23:45 02/21/22 23:45 02/21/22 23:45 Analyzed	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	ge Organics (D) Result <49.9 <49.9 <49.9  **Recovery** 59 67	Qualifier  U  Qualifier  S1- S1-	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/21/22 11:35 02/21/22 11:35 02/21/22 11:35  Prepared 02/21/22 11:35	02/22/22 16:01  Analyzed 02/21/22 23:45 02/21/22 23:45  Analyzed 02/21/22 23:45	Dil Fac
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	ge Organics (D) Result <49.9 <49.9 <49.9  **Recovery 59 67  omatography -	Qualifier  U  Qualifier  S1- S1-	49.9  RL 49.9  49.9  49.9  Limits 70 - 130	mg/Kg  Unit  mg/Kg  mg/Kg		Prepared 02/21/22 11:35 02/21/22 11:35 02/21/22 11:35  Prepared 02/21/22 11:35	02/22/22 16:01  Analyzed 02/21/22 23:45 02/21/22 23:45  Analyzed 02/21/22 23:45	Dil Fac

#### **Surrogate Summary**

 Client: WSP USA Inc.
 Job ID: 890-1976-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029.task09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-1967-A-1-D MS	Matrix Spike	97	115	
890-1967-A-1-E MSD	Matrix Spike Duplicate	101	118	
890-1976-1	SS07	102	103	
LCS 880-19711/1-A	Lab Control Sample	96	103	
LCSD 880-19711/2-A	Lab Control Sample Dup	97	107	
MB 880-19711/5-A	Method Blank	115	101	
Surrogate Legend				

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-11473-A-1-D MS	Matrix Spike	63 S1-	53 S1-	
880-11473-A-1-E MSD	Matrix Spike Duplicate	73	61 S1-	
890-1976-1	SS07	59 S1-	67 S1-	
LCS 880-19908/2-A	Lab Control Sample	114	114	
LCSD 880-19908/3-A	Lab Control Sample Dup	118	122	
MB 880-19908/1-A	Method Blank	74	88	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

**Eurofins Carlsbad** 

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Client: WSP USA Inc. Job ID: 890-1976-1 SDG: 31403236.029.task09.02 Project/Site: Corral Canyon 5-32

Method: 8021B - Volatile Organic Compounds (GC)

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

**Matrix: Solid** 

**Analysis Batch: 20287** 

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19711

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

MB MB

MD MD

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

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

Matrix: Solid

Analysis Batch: 20287

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19711

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

LCS LCS

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

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

Matrix: Solid

**Analysis Batch: 20287** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Prep Batch: 19711

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

LCSD LCSD

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

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

**Matrix: Solid** 

Analysis Batch: 20287

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

Prep Batch: 19711

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

Prep Batch: 19711

Prep Type: Total/NA

Prep Batch: 19908

Client Sample ID: Matrix Spike Duplicate

#### QC Sample Results

Client: WSP USA Inc. Job ID: 890-1976-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029.task09.02

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

Lab Sample ID: 890-1967-A-1-D MS Client Sample ID: Matrix Spike Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 20287** 

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00199	U F1	0.0994	0.06677	F1	mg/Kg		67	70 _ 130	
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1318	F1	mg/Kg		66	70 - 130	
o-Xylene	<0.00199	U	0.0994	0.07148		mg/Kg		72	70 - 130	

MS MS Surrogate %Recovery Qualifier Limits 70 - 130 4-Bromofluorobenzene (Surr) 97 1,4-Difluorobenzene (Surr) 70 - 130 115

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

**Matrix: Solid** 

Analysis Batch: 20287								Prep	Batch:	19711	
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.0998	0.09905		mg/Kg		99	70 - 130	8	35
Toluene	<0.00199	U F1	0.0998	0.06894	F1	mg/Kg		69	70 - 130	6	35
Ethylbenzene	<0.00199	U F1	0.0998	0.06734	F1	mg/Kg		67	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1358	F1	mg/Kg		68	70 - 130	3	35
o-Xylene	<0.00199	U	0.0998	0.07305		mg/Kg		73	70 - 130	2	35

MSD MSD Surrogate Qualifier Limits %Recovery 70 - 130 4-Bromofluorobenzene (Surr) 101 1,4-Difluorobenzene (Surr) 118 70 - 130

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

Lab Sample ID: MB 880-19908/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA

**Analysis Batch: 19889** 

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/21/22 11:35	02/21/22 19:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/21/22 11:35	02/21/22 19:55	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/21/22 11:35	02/21/22 19:55	1

MB MB Surrogate 1-Chlorooctane o-Terphenyl

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
)	74		70 - 130	02/21/22 11:35	02/21/22 19:55	1
	88		70 - 130	02/21/22 11:35	02/21/22 19:55	1

**Client Sample ID: Lab Control Sample** Lab Sample ID: LCS 880-19908/2-A **Matrix: Solid** 

**Analysis Batch: 19889** 

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

C10-C28)

Prep Type: Total/NA

Prep Batch: 19908

Client: WSP USA Inc. Job ID: 890-1976-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029.task09.02

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

LCS LCS

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

**Matrix: Solid** 

Analysis Batch: 19889

Prep Type: Total/NA

Prep Batch: 19908

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

Lab Sample ID: LCSD 880-19908/3-A Client Sample ID: Lab Control Sample Dup

**Matrix: Solid** 

**Analysis Batch: 19889** 

Prep Type: Total/NA

Prep Batch: 19908

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 1000 929.6 93 70 - 1306 20 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1117 112 mg/Kg 70 - 1309 20 C10-C28)

LCSD LCSD

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

Lab Sample ID: 880-11473-A-1-D MS Client Sample ID: Matrix Spike

MS MS

**Matrix: Solid** 

**Analysis Batch: 19889** 

Prep Type: Total/NA

Prep Batch: 19908

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

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

Lab Sample ID: 880-11473-A-1-E MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** 

Analysis Batch: 19889

Prep Type: Total/NA

Prep Batch: 19908

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1185		mg/Kg		117	70 - 130	15	20	
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1241		mg/Kg		122	70 _ 130	15	20	

MSD MSD %Recovery Qualifier Surrogate Limits

1-Chlorooctane 73 70 - 130 70 - 130 o-Terphenyl 61 S1-

Client: WSP USA Inc.

Job ID: 890-1976-1

Project/Site: Corral Canyon 5-32

SDG: 31403236.029.task09.02

Method: 300.0 - Anions, Ion Chromatography

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

Matrix: Solid

Analyte

Chloride

Analysis Batch: 19941

Client Sample ID: Method Blank
Prep Type: Soluble

 MB
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 <5.00</td>
 U
 5.00
 mg/Kg
 02/22/22 17:13
 1

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

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 19941

Alialysis Balcii. 19941

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

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

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Soluble

Analysis Batch: 19941

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 250 258.5 mg/Kg 103 90 - 110

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

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Soluble

Matrix. Solid

Analysis Batch: 19941

Spike MS MS Sample Sample %Rec. Analyte Result Qualifier Added Result Qualifier %Rec Unit Limits 809.2 F1 Chloride 491 F1 252 126 90 - 110 mg/Kg

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

Matrix: Solid

Analysis Batch: 19941

Sample Sample Spike MSD MSD %Rec. RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 491 F1 252 834.6 F1 mg/Kg 136 90 - 110 20

**Eurofins Carlsbad** 

Client Sample ID: Matrix Spike Duplicate

**Prep Type: Soluble** 

#### **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-1976-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029.task09.02

#### **GC VOA**

#### Prep Batch: 19711

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

#### **Analysis Batch: 20287**

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

#### Analysis Batch: 20444

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

#### **GC Semi VOA**

#### Analysis Batch: 19889

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

#### Prep Batch: 19908

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

#### **Analysis Batch: 20081**

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

#### HPLC/IC

#### Leach Batch: 19898

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

Page 11 of 20

**Eurofins Carlsbad** 

2/28/2022

#### **QC Association Summary**

Client: WSP USA Inc. Job ID: 890-1976-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.029.task09.02

#### **HPLC/IC** (Continued)

#### Leach Batch: 19898 (Continued)

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

#### Analysis Batch: 19941

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

#### Lab Chronicle

 Client: WSP USA Inc.
 Job ID: 890-1976-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029.task09.02

Client Sample ID: 890-1976-1

Lab Sample ID: 890-1976-1

Matrix: Solid

Date Collected: 02/17/22 10:54
Date Received: 02/17/22 16:33

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

#### **Laboratory References:**

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

**Eurofins Carlsbad** 

Released to Imaging: 4/20/2022 9:01:53 AM

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#### **Accreditation/Certification Summary**

 Client: WSP USA Inc.
 Job ID: 890-1976-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029.task09.02

#### **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	<b>Expiration Date</b>	
Texas		ELAP	T104704400-21-22	06-30-22	
The following analytes	are included in this report, bu	t the laboratory is not certif	ied by the governing authority. This list ma	av include analytes for wh	
the agency does not of	fer certification.	•	, , ,	.,	
the agency does not of Analysis Method	fer certification. Prep Method	Matrix	Analyte	-,	
0 ,		Matrix Solid	Analyte Total TPH		

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#### **Method Summary**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1

SDG: 31403236.029.task09.02

1-1	
Laboratory XEN MID	
XEN MID	

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

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### Laboratory References:

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

#### **Sample Summary**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-1976-1

SDG: 31403236.029.task09.02

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

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## Chain of Custody

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334

9	117/22 4.50/2		N.7 &	No.
shed by: (Signature) Received by: (Signature)	ime	Received by: (Signature)		Relinquished by: (Signature)
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	ant company to Xenco, its affiliates and subs sees or expenses incurred by the client if su mitted to Xenco, but not analyzed. These ter	titutes a valid purchase order from cl t assume any responsibility for any lo nd a charge of \$5 for each sample sub	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. 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 of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be early the contract of the co	Notice: Signature of this do of service. Xenco will be li of Xenco. A minimum char
Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Cu Pb Mn Mo Ni Se Ag Tl U	Sb As Ba Be B Cd Ca ( Sb As Ba Be Cd Cr Co	8RCRA 13PPM Texas 11 AI TCLP / SPLP 6010: 8RCRA	200.8 / 6020: and Metal(s) to be analyzed	Total 200.7 / 6010 Circle Method(s) :
		dic	c	
	× × ×	2 10:54 0.5'	S 02/17/22	SS07
	Numb TPH (E BTEX (	Time Depth	ification Matrix Sampled	Sample Identification
	PA 80	Total Containers:	Yes No (N/A)	Sample Custody Seals:
800-1970 Citalia Ci Cara	)15) )=802	Correction Factor: -6-2	Yes No MA	Cooler Custody Seals:
	:1)	Thermometer ID	Ves No 0	Temperature (°C):
	rs	Wet Ice: Yes No	Temp BI	SAMPLE RECEIPT
		Due Date:	Mercy Rotich.	Sampler's Name:
		Rush:	NAPP2201944299	P.O. Number:
		Routine []	31403236.029 Task 09.02	Project Number:
ANALYSIS REQUEST	A	Turn Around	Corral Canyon 5-32	Project Name:
m Deliverables: EDD	Email: amy.ruth@exxonmobil.com,aimee.cole@wsp.com	Email: amy.ruth@ex	989 854 0852	Phone:
Reporting:Level III Level III	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, New Mexico 88220	City, State ZIP:
State of Project:		Address:	508 West Stevens Street	Address:
Program: UST/PST PRP Brownfields		Company Name:	WSP USA	
Work Order Comments	Amy Ruth	Bill to: (if different)	Belill, Benjamin	Project Manager:

Work Order No:

Revised Date 051418 Rev 2018.1

1089 N Canal St.

Carlsbad, NM 88220 Phone: 575-988-3199 Fax 575-988-3199

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Eurofins Carlsbad

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# Chain of Custody Record

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Environment Testing
America

State, Zip. TX, 79701 SS07 (890-1976-1) Sample Identification - Client ID (Lab ID Vote Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the aboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central, LLC alboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC. 432-704-5440(Tel) Deliverable Requested I, II III, IV Other (specify) Possible Hazard Identification Client Information (Sub Contract Lab) Corral Cayon 5-32 roject Name Midland Eurofins Environment Testing South Centr Shipping/Receiving mpty Kit Relinquished by 1211 W Florida Ave, linquished by: Custody Seals Intact: linquished by: linquished by: Yes ∆ No È Custody Seal No 0.18 Date/Time Date/Time Date/Time Primary Deliverable Rank 89000004 PO# Due Date Requested SOW# 'AT Requested (days): hone roject #: 2/17/22 Mountain 54 G=grab) (C=comp, Sample Type Preservation Code: Company Company Matrix Solid Kramer Jessica jessica kramer@eurofinset.com Time NELAP - Louisiana, NELAP - Texas ccreditations Required (See note) Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal Ru Lah Archive For Month Cooler Temperature(s) °C and Other Remarks Received by × 8016MOD\_NM/8016NM\_S\_Prep (MOD) Full TPH Return To Client × 8015MOD\_Calc × 300\_ORGFM\_28D/DI\_LEACH Chloride 8021B/5035FP\_Calc (MOD) BTEX × **Analysis Requested** Total BTEX\_GCV × Disposal By Lab State of Origin: New Mexico Carrier Tracking No(s) Date/Time. Archive For **Total Number of containers** A-HCL B NaOH C-Zn Acetate D Nitric Acid E-NAHSO4 F-MeOH G Amchlor H-Ascorbic Acid I Ice J-DI Water K EDTA L EDA COC No<sup>-</sup> 890-631 1 Preservation Codes 890-1976-1 Page 1 of 1 age Special Instructions/Note: M Hexane
N-None
O-AsNaO2
P Na2O4S
Q-Na2SO3
R Na2SC3
S-H2SO4
T TSP Dodecalyydrate
U Acetione
V-MCAA
W pH 4-5
Z- other (specify) Company Ver 06/08/2021 Company Months

#### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-1976-1 SDG Number: 31403236.029.task09.02

List Source: Eurofins Carlsbad

Login Number: 1976 List Number: 1 Creator: Clifton, Cloe

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

#### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-1976-1

SDG Number: 31403236.029.task09.02

Login Number: 1976 **List Source: Eurofins Midland** List Number: 2 List Creation: 02/21/22 08:09 AM Creator: Teel, Brianna

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	True	

**Eurofins Carlsbad** 

<6mm (1/4").



## **Environment Testing America**

#### **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2104-1

Laboratory Sample Delivery Group: 31403236.029 Task #09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Kalei Jennings

MAMER

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

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 4/20/2022 9:01:53 AM

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.

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Client: WSP USA Inc. Project/Site: Corral Canyon 5-32 Laboratory Job ID: 890-2104-1 SDG: 31403236.029 Task #09.02

#### **Table of Contents**

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#### **Definitions/Glossary**

Client: WSP USA Inc. Job ID: 890-2104-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.029 Task #09.02

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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

**HPLC/IC** 

Qualifier **Qualifier Description** 

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

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac Dilution Factor

Detection Limit (DoD/DOE) DL

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) Most Probable Number MPN Method Quantitation Limit MQL

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NFG 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)

Relative Percent Difference, a measure of the relative difference between two points RPD

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

 Client: WSP USA Inc.
 Job ID: 890-2104-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 Task #09.02

Job ID: 890-2104-1

**Laboratory: Eurofins Carlsbad** 

Narrative

Job Narrative 890-2104-1

#### Receipt

The samples were received on 3/18/2022 11:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C

#### **GC VOA**

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

#### GC Semi VOA

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

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

#### HPLC/IC

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

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Lab Sample ID: 890-2104-1

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2104-1

Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

**Client Sample ID: BH01** 

Date Collected: 03/11/22 09:35 Date Received: 03/18/22 11:30

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		03/21/22 07:44	03/21/22 12:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			03/21/22 07:44	03/21/22 12:01	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/21/22 07:44	03/21/22 12:01	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			03/21/22 15:31	1
Analyte Total TPH		Qualifier	RL 49.8	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	167		49.8	mg/Kg				
							03/21/22 15:13	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)					03/21/22 15:13	1
Method: 8015B NM - Diesel Rang Analyte	• • •	RO) (GC) Qualifier	RL	Unit	D	Prepared	03/21/22 15:13  Analyzed	Dil Fac
Analyte Gasoline Range Organics	• • •	Qualifier	<b>RL</b> 49.8		<u>D</u>	Prepared 03/21/22 09:09		Dil Fac
Analyte Gasoline Range Organics	Result	Qualifier		Unit	<u>D</u>		Analyzed	Dil Fac
Analyte  Gasoline Range Organics (GRO)-C6-C10  Diesel Range Organics (Over	Result   <49.8	Qualifier U	49.8	Unit mg/Kg	<u> </u>	03/21/22 09:09	<b>Analyzed</b> 03/21/22 13:20	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result  49.8 167	Qualifier U	49.8	Unit mg/Kg mg/Kg	<u>D</u>	03/21/22 09:09	Analyzed 03/21/22 13:20 03/21/22 13:20	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result   <49.8   167   <49.8	Qualifier U	49.8 49.8 49.8	Unit mg/Kg mg/Kg	<u>D</u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09	Analyzed 03/21/22 13:20 03/21/22 13:20 03/21/22 13:20	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	Result	Qualifier U	49.8 49.8 49.8 <b>Limits</b>	Unit mg/Kg mg/Kg	<u>D</u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09 Prepared	Analyzed 03/21/22 13:20 03/21/22 13:20 03/21/22 13:20 Analyzed	Dil Fac
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	Result	Qualifier  U  U  Qualifier	49.8 49.8 49.8  Limits 70 - 130	Unit mg/Kg mg/Kg	<u> </u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09 Prepared 03/21/22 09:09	Analyzed 03/21/22 13:20 03/21/22 13:20 03/21/22 13:20  Analyzed 03/21/22 13:20	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	Result	Qualifier  U  U  Qualifier	49.8 49.8 49.8  Limits 70 - 130	Unit mg/Kg mg/Kg	<u>D</u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09 Prepared 03/21/22 09:09	Analyzed 03/21/22 13:20 03/21/22 13:20 03/21/22 13:20  Analyzed 03/21/22 13:20	Dil Face

Client Sample ID: BH01A Lab Sample ID: 890-2104-2

Date Collected: 03/11/22 09:40 Date Received: 03/18/22 11:30

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 12:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			03/21/22 07:44	03/21/22 12:22	1

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Matrix: Solid

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2104-1

Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

Client Sample ID: BH01A Lab Sample ID: 890-2104-2 Date Collected: 03/11/22 09:40

Matrix: Solid

Sample Depth: 2

Date Received: 03/18/22 11:30

Method: 8021B - Volatile Organic Compo	ounds (GC)	(Continued)
motification to a gaine compa	Julius (33)	( Continuou,

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

ı						
	Method:	Total	RTFY	- Total	RTFY	Calculation

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

Mothod: 9015 NM - Diocal Pango	Organice (DPO) (CC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	779	49.9	ma/Ka			03/21/22 15:13	1

ALC: LOCATE NA	D: 1 D	•	(DDO) (	
Method: 8015B NM	- Diesel Range	Organics	(DKO) (	GC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9 U	49.9	mg/Kg		03/21/22 09:09	03/21/22 13:41	1
Diesel Range Organics (Over C10-C28)	779	49.9	mg/Kg		03/21/22 09:09	03/21/22 13:41	1
OII Range Organics (Over C28-C36)	<49.9 U	49.9	mg/Kg		03/21/22 09:09	03/21/22 13:41	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85	70 - 130	03/21/22 09:09	03/21/22 13:41	1
o-Terphenyl	100	70 - 130	03/21/22 09:09	03/21/22 13:41	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

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

**Client Sample ID: BH02** Lab Sample ID: 890-2104-3

Date Collected: 03/11/22 10:20 Date Received: 03/18/22 11:30

Sample Depth: 1

Mathad.	0024D	V-1-4:1-	O	Compounds	
wethod:	OUZID -	voiatile	Organic (	Jompounas.	166

mictiod. 002 ID - Volutile Organ	ne compounds (	,00,						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 12:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			03/21/22 07:44	03/21/22 12:42	1
1,4-Difluorobenzene (Surr)	107		70 - 130			03/21/22 07:44	03/21/22 12:42	1

Method:	Total	RTFY -	Total RTFY	Calculation

Released to Imaging: 4/20/2022 9:01:53 AM

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

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

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**Matrix: Solid** 

Lab Sample ID: 890-2104-3

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2104-1

Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

**Client Sample ID: BH02** Date Collected: 03/11/22 10:20 Date Received: 03/18/22 11:30

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 12:17	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U F1	49.9	mg/Kg		03/21/22 09:09	03/21/22 12:17	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 12:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			03/21/22 09:09	03/21/22 12:17	1
o-Terphenyl	94		70 - 130			03/21/22 09:09	03/21/22 12:17	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	225		4.96	mg/Kg			03/21/22 17:21	

Client Sample ID: BH02A Lab Sample ID: 890-2104-4

Date Collected: 03/11/22 10:30 Date Received: 03/18/22 11:30

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Toluene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		03/21/22 07:44	03/21/22 13:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130			03/21/22 07:44	03/21/22 13:03	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/21/22 07:44	03/21/22 13:03	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00402	U	0.00402	mg/Kg			03/21/22 15:31	1
Total BTEX	<0.00402	U	0.00402	mg/Kg			03/21/22 15:31	1
: Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Method: 8015 NM - Diesel Range Analyte	e Organics (DR	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
: Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC) Qualifier			<u>D</u>	Prepared		
Method: 8015 NM - Diesel Range Analyte	e Organics (DR Result <50.0	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH	e Organics (DR Result <50.0	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics	e Organics (DR Result <50.0	Qualifier U RO) (GC) Qualifier	RL 50.0	Unit mg/Kg			Analyzed 03/21/22 15:13	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10	e Organics (DR Result <50.0 ge Organics (Di Result <50.0	Qualifier U  RO) (GC) Qualifier U  Qualifier U	RL 50.0 FL 50.0	Unit mg/Kg  Unit mg/Kg		Prepared 03/21/22 09:09	Analyzed 03/21/22 15:13  Analyzed 03/21/22 14:02	Dil Fac Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	e Organics (DR Result <50.0 ge Organics (DI Result	Qualifier U  RO) (GC) Qualifier U  Qualifier U		Unit mg/Kg		Prepared	Analyzed 03/21/22 15:13 Analyzed	Dil Fac  Dil Fac  1
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10	e Organics (DR Result <50.0 ge Organics (Di Result <50.0	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 50.0 FL 50.0	Unit mg/Kg  Unit mg/Kg		Prepared 03/21/22 09:09	Analyzed 03/21/22 15:13  Analyzed 03/21/22 14:02	Dil Fac  Dil Fac  1
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	e Organics (DR Result <50.0 ge Organics (Di Result <50.0	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 50.0 FL 50.0 50.0	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/21/22 09:09 03/21/22 09:09	Analyzed 03/21/22 15:13  Analyzed 03/21/22 14:02 03/21/22 14:02	Dil Fac  Dil Fac  1
Method: 8015 NM - Diesel Range Analyte Total TPH  Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	e Organics (DR Result <50.0 ge Organics (DI Result <50.0 <50.0	Qualifier U  RO) (GC) Qualifier U  U  U  U	RL 50.0 50.0 50.0	Unit mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/21/22 09:09 03/21/22 09:09	Analyzed 03/21/22 15:13  Analyzed 03/21/22 14:02 03/21/22 14:02 03/21/22 14:02	Dil Fac  Dil Fac  1  1  1

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Matrix: Solid

Matrix: Solid

Lab Sample ID: 890-2104-4

Chefit Sample Results

 Client: WSP USA Inc.
 Job ID: 890-2104-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 Task #09.02

**Client Sample ID: BH02A** 

Date Collected: 03/11/22 10:30 Date Received: 03/18/22 11:30

Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	34.3		5.04	mg/Kg			03/21/22 17:32	1

Client Sample ID: BH03 Lab Sample ID: 890-2104-5

Date Collected: 03/11/22 11:45 Date Received: 03/18/22 11:30

Method: 8021B - Volatile Organic	Compounds (	GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199	U	0.00199	mg/Kg		03/21/22 07:44	03/21/22 13:23	
Toluene	< 0.00199	U	0.00199	mg/Kg		03/21/22 07:44	03/21/22 13:23	
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		03/21/22 07:44	03/21/22 13:23	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/21/22 07:44	03/21/22 13:23	
o-Xylene	< 0.00199	U	0.00199	mg/Kg		03/21/22 07:44	03/21/22 13:23	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/21/22 07:44	03/21/22 13:23	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	104		70 - 130			03/21/22 07:44	03/21/22 13:23	
1,4-Difluorobenzene (Surr)	109		70 - 130			03/21/22 07:44	03/21/22 13:23	
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/21/22 15:31	
Method: 8015 NM - Diesel Range Analyte Total TPH	•	Qualifier	<b>RL</b> 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/21/22 15:13	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			03/21/22 15:13	ĺ
Method: 8015B NM - Diesel Rang	•							
Analyte		Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 14:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 14:23	•
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/21/22 09:09	03/21/22 14:23	,
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	78		70 - 130			03/21/22 09:09	03/21/22 14:23	
o-Terphenyl	95		70 - 130			03/21/22 09:09	03/21/22 14:23	
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyto							•	

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Lab Sample ID: 890-2104-6

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2104-1

Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

**Client Sample ID: BH3A** 

Date Collected: 03/11/22 11:55 Date Received: 03/18/22 11:30

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
Toluene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		03/21/22 07:44	03/21/22 13:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		70 - 130			03/21/22 07:44	03/21/22 13:44	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/21/22 07:44	03/21/22 13:44	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	Ü	0.00403	mg/Kg			03/21/22 15:31	1
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			03/21/22 15:13	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte								
· ······· <b>/</b> · ·	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<b>Result</b> <50.0		<b>RL</b> 50.0	Mg/Kg	<u>D</u>	Prepared 03/21/22 09:09	Analyzed 03/21/22 14:43	
Gasoline Range Organics		U			<u>D</u>	<u>·</u>		1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg	<u>D</u>	03/21/22 09:09	03/21/22 14:43	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 <50.0	U U	50.0	mg/Kg	<u>D</u>	03/21/22 09:09	03/21/22 14:43	1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 <50.0 <50.0	U U	50.0 50.0 50.0	mg/Kg	<u>D</u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09	03/21/22 14:43 03/21/22 14:43 03/21/22 14:43	1 1 1 1 Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)  Surrogate	<50.0 <50.0 <50.0 %Recovery	U U	50.0 50.0 50.0 <i>Limits</i>	mg/Kg	<u>D</u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09 Prepared	03/21/22 14:43 03/21/22 14:43 03/21/22 14:43 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<50.0 <50.0 <50.0 <b>%Recovery</b> 86 105	U U U <b>Qualifier</b>	50.0 50.0 50.0 <b>Limits</b> 70 - 130	mg/Kg	<u>D</u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09 Prepared 03/21/22 09:09	03/21/22 14:43 03/21/22 14:43 03/21/22 14:43 Analyzed 03/21/22 14:43	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<50.0 <50.0 <50.0 <50.0  %Recovery 86 105  omatography -	U U U <b>Qualifier</b>	50.0 50.0 50.0 <b>Limits</b> 70 - 130	mg/Kg	<u>D</u>	03/21/22 09:09 03/21/22 09:09 03/21/22 09:09 Prepared 03/21/22 09:09	03/21/22 14:43 03/21/22 14:43 03/21/22 14:43 Analyzed 03/21/22 14:43	

#### **Surrogate Summary**

 Client: WSP USA Inc.
 Job ID: 890-2104-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 Task #09.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

•				Percent Surrogate Red
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-12586-A-1-F MS	Matrix Spike	103	112	
880-12586-A-1-G MSD	Matrix Spike Duplicate	102	110	
890-2104-1	BH01	103	109	
890-2104-2	BH01A	101	110	
890-2104-3	BH02	102	107	
890-2104-4	BH02A	107	109	
890-2104-5	BH03	104	109	
890-2104-6	ВН3А	108	109	
LCS 880-21977/1-A	Lab Control Sample	103	110	
LCSD 880-21977/2-A	Lab Control Sample Dup	102	109	
MB 880-21977/5-A	Method Blank	101	103	
Surrogate Legend				
BFB = 4-Bromofluorobenzene	(Surr)			
DFBZ = 1,4-Difluorobenzene (	Surr)			

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

Matrix: Solid Prep Type: Total/NA

nt Sample ID (70 1 3	CO1         OTPH           -130)         (70-130)           34         100           85         100	
1 1A	34 100	<u>)                                    </u>
1A 8		
	35 100	
2		
	30 94	
2	74 80	
2	76 82	
2A 8	35 101	
3	78 95	
Α 8	36 105	
3	7	78 95

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

Matrix: Solid Prep Type: Total/NA

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

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OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-2104-1 SDG: 31403236.029 Task #09.02 Project/Site: Corral Canyon 5-32

Method: 8021B - Volatile Organic Compounds (GC)

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

**Matrix: Solid Analysis Batch: 21978**  Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 21977

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

MB MB

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

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

Matrix: Solid

**Analysis Batch: 21978** 

Prep Type: Total/NA Prep Batch: 21977

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

LCS LCS

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

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

Matrix: Solid

**Analysis Batch: 21978** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA Prep Batch: 21977

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

LCSD LCSD

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

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

Matrix: Solid

**Analysis Batch: 21978** 

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

Prep Batch: 21977

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

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Client: WSP USA Inc. Job ID: 890-2104-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

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

Lab Sample ID: 880-12586-A-1-F MS Client Sample ID: Matrix Spike Prep Type: Total/NA

**Matrix: Solid** 

**Analysis Batch: 21978** 

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

MS MS

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

Lab Sample ID: 880-12586-A-1-G MSD Client Sample ID: Matrix Spike Duplicate

**Matrix: Solid** 

m-Xylene & p-Xylene

**Analysis Batch: 21978** 

Prep Type: Total/NA

70 - 130

70 - 130

100

97

Prep Batch: 21977

35

35

Prep Batch: 21977

Sample Sample Spike MSD MSD %Rec. Result Qualifier %Rec RPD Limit Analyte babbA Result Qualifier Limits Unit Benzene <0.00198 U 0.100 0.09510 mg/Kg 95 70 - 130 2 35 Toluene <0.00198 U 0.100 0.09393 mg/Kg 94 70 - 130 35 Ethylbenzene <0.00198 U 0.100 0.09588 96 70 - 130 35 mg/Kg

0.1992

0.09720

mq/Kq

mg/Kg

0.200

0.100

o-Xylene MSD MSD Qualifier Limits Surrogate %Recovery

<0.00396 U

<0.00198 U

70 - 130 4-Bromofluorobenzene (Surr) 102 1,4-Difluorobenzene (Surr) 110 70 - 130

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

Lab Sample ID: MB 880-21982/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 21982

**Analysis Batch: 21983** 

MB MB Result Qualifier RL Unit D Prepared Analyzed Dil Fac Analyte 03/21/22 09:09 <50.0 U 50.0 03/21/22 10:51 Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <50.0 U 50.0 03/21/22 09:09 03/21/22 10:51 mg/Kg C10-C28) OII Range Organics (Over C28-C36) <50.0 U 50.0 03/21/22 09:09 03/21/22 10:51 mg/Kg

MB MB

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

Lab Sample ID: LCS 880-21982/2-A **Matrix: Solid** 

C10-C28)

Analysis Batch: 21983							Prep	Batch: 21982
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	852.9		mg/Kg		85	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	924.6		mg/Kg		92	70 - 130	

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**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

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Limits 70 - 130 70 - 130

Client: WSP USA Inc. Job ID: 890-2104-1 SDG: 31403236.029 Task #09.02 Project/Site: Corral Canyon 5-32

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

LCS LCS %Recovery Qualifier

Lab Sample ID: LCS 880-21982/2-A **Matrix: Solid** 

**Analysis Batch: 21983** 

Surrogate

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 21982

1-Chlorooctane	94	
o-Terphenyl	111	

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

Matrix: Solid

**Analysis Batch: 21983** 

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 21982

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

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	116		70 - 130

Lab Sample ID: 890-2104-3 MS Client Sample ID: BH02 **Matrix: Solid** 

**Analysis Batch: 21983** 

Prep Type: Total/NA Prep Batch: 21982

	Sample	Sample	<b>Spike</b>	IVIS	IVIS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Gasoline Range Organics	<49.9	U	998	809.3		mg/Kg		79	70 - 130
(GRO)-C6-C10									
Diesel Range Organics (Over	<49.9	U F1	998	723.2	F1	mg/Kg		69	70 - 130
C10-C28)									

C10-C28)

	MS MS	
Surrogate	%Recovery Qualif	ier Limits
1-Chlorooctane	74	70 - 130
o-Terphenyl	80	70 - 130

Lab Sample ID: 890-2104-3 MSD Client Sample ID: BH02

**Matrix: Solid** 

Analysis Batch: 21983

Prep Type: Total/NA Prep Batch: 21982

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

	MSD MSD	
Surrogate	%Recovery Qualifie	r Limits
1-Chlorooctane	76	70 - 130
o-Terphenyl	82	70 - 130

Client: WSP USA Inc. Job ID: 890-2104-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

**Prep Type: Soluble** 

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Client Sample ID: BH01

Client Sample ID: BH01

**Prep Type: Soluble** 

**Prep Type: Soluble** 

Method: 300.0 - Anions, Ion Chromatography

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

**Matrix: Solid** 

**Analysis Batch: 22108** 

мв мв

Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 03/21/22 16:09

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

**Matrix: Solid** 

**Analysis Batch: 22108** 

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

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

**Matrix: Solid** 

**Analysis Batch: 22108** 

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 274.5 20 mg/Kg 110 90 - 110

Lab Sample ID: 890-2104-1 MS

**Matrix: Solid** 

**Analysis Batch: 22108** 

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

Lab Sample ID: 890-2104-1 MSD

**Matrix: Solid** 

**Analysis Batch: 22108** 

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

#### **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-2104-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 Task #09.02

**GC VOA** 

Prep Batch: 21977

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

**Analysis Batch: 21978** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	8021B	21977
890-2104-2	BH01A	Total/NA	Solid	8021B	21977
890-2104-3	BH02	Total/NA	Solid	8021B	21977
890-2104-4	BH02A	Total/NA	Solid	8021B	21977
890-2104-5	BH03	Total/NA	Solid	8021B	21977
890-2104-6	ВН3А	Total/NA	Solid	8021B	21977
MB 880-21977/5-A	Method Blank	Total/NA	Solid	8021B	21977
LCS 880-21977/1-A	Lab Control Sample	Total/NA	Solid	8021B	21977
LCSD 880-21977/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21977
880-12586-A-1-F MS	Matrix Spike	Total/NA	Solid	8021B	21977
880-12586-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21977

Analysis Batch: 22093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2104-1	BH01	Total/NA	Solid	Total BTEX	
890-2104-2	BH01A	Total/NA	Solid	Total BTEX	
890-2104-3	BH02	Total/NA	Solid	Total BTEX	
890-2104-4	BH02A	Total/NA	Solid	Total BTEX	
890-2104-5	BH03	Total/NA	Solid	Total BTEX	
890-2104-6	ВН3А	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 21982

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

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Released to Imaging: 4/20/2022 9:01:53 AM

#### **QC Association Summary**

Client: WSP USA Inc. Job ID: 890-2104-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

GC Semi VOA

#### Analysis Batch: 21983

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

#### Analysis Batch: 22086

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
BH01	Total/NA	Solid	8015 NM	
BH01A	Total/NA	Solid	8015 NM	
BH02	Total/NA	Solid	8015 NM	
BH02A	Total/NA	Solid	8015 NM	
BH03	Total/NA	Solid	8015 NM	
внза	Total/NA	Solid	8015 NM	
_	BH01 BH01A BH02 BH02A BH03	BH01 Total/NA BH01A Total/NA BH02 Total/NA BH02A Total/NA BH03 Total/NA	BH01         Total/NA         Solid           BH01A         Total/NA         Solid           BH02         Total/NA         Solid           BH02A         Total/NA         Solid           BH03         Total/NA         Solid	BH01         Total/NA         Solid         8015 NM           BH01A         Total/NA         Solid         8015 NM           BH02         Total/NA         Solid         8015 NM           BH02A         Total/NA         Solid         8015 NM           BH03         Total/NA         Solid         8015 NM

#### **HPLC/IC**

#### Leach Batch: 22074

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

#### Analysis Batch: 22108

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

Job ID: 890-2104-1

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32 SDG: 31403236.029 Task #09.02

**Client Sample ID: BH01** 

Lab Sample ID: 890-2104-1 Date Collected: 03/11/22 09:35

**Matrix: Solid** Date Received: 03/18/22 11:30

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

Client Sample ID: BH01A Lab Sample ID: 890-2104-2

Date Collected: 03/11/22 09:40 **Matrix: Solid** Date Received: 03/18/22 11:30

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab 5035 XEN MID Total/NA Prep 21977 03/21/22 07:44 KL 8021B Total/NA 21978 03/21/22 12:22 XEN MID Analysis 1 KL Total/NA Total BTEX 22093 03/21/22 15:31 XEN MID Analysis 1 A.I XEN MID Total/NA Analysis 8015 NM 22086 03/21/22 15:13 Total/NA 21982 XEN MID Prep 8015NM Prep 03/21/22 09:09 DM Total/NA Analysis 8015B NM 21983 03/21/22 13:41 AJ XEN MID

Lab Sample ID: 890-2104-3 Client Sample ID: BH02 Date Collected: 03/11/22 10:20

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22074

22108

03/21/22 13:26

03/21/22 17:11

SC

SC

Date Received: 03/18/22 11:30

Leach

Analysis

DI Leach

300.0

Soluble

Soluble

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

Lab Sample ID: 890-2104-4 Client Sample ID: BH02A Matrix: Solid Date Collected: 03/11/22 10:30

Date Received: 03/18/22 11:30

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

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**Matrix: Solid** 

XEN MID

XEN MID

#### **Lab Chronicle**

 Client: WSP USA Inc.
 Job ID: 890-2104-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 Task #09.02

Client Sample ID: BH02A

Lab Sample ID: 890-2104-4

Date Collected: 03/11/22 10:30 Matrix: Solid
Date Received: 03/18/22 11:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 14:02	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 17:32	SC	XEN MID

Client Sample ID: BH03 Lab Sample ID: 890-2104-5

Date Collected: 03/11/22 11:45 Date Received: 03/18/22 11:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 13:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 14:23	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 17:42	SC	XEN MID

Client Sample ID: BH3A

Date Collected: 03/11/22 11:55

Lab Sample ID: 890-2104-6

Matrix: Solid

Date Received: 03/18/22 11:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21977	03/21/22 07:44	KL	XEN MID
Total/NA	Analysis	8021B		1	21978	03/21/22 13:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	22093	03/21/22 15:31	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22086	03/21/22 15:13	AJ	XEN MID
Total/NA	Prep	8015NM Prep			21982	03/21/22 09:09	DM	XEN MID
Total/NA	Analysis	8015B NM		1	21983	03/21/22 14:43	AJ	XEN MID
Soluble	Leach	DI Leach			22074	03/21/22 13:26	SC	XEN MID
Soluble	Analysis	300.0		1	22108	03/21/22 18:13	SC	XEN MID

Laboratory References:

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

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**Matrix: Solid** 

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#### **Accreditation/Certification Summary**

Client: WSP USA Inc. Job ID: 890-2104-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.029 Task #09.02

#### **Laboratory: Eurofins Midland**

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes the agency does not of	' '	it the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo
Analysis Method	Prep Method	Matrix	Analyte	
8015 NM		Solid	Total TPH	

#### **Method Summary**

Client: WSP USA Inc.

Method

8021B

Total BTEX 8015 NM

8015B NM

8015NM Prep

DI Leach

300.0

5035

Project/Site: Corral Canyon 5-32

**Method Description** 

Total BTEX Calculation

Microextraction

Volatile Organic Compounds (GC)

Diesel Range Organics (DRO) (GC)

Diesel Range Organics (DRO) (GC)

**Deionized Water Leaching Procedure** 

Anions, Ion Chromatography

Closed System Purge and Trap

Job ID: 890-2104-1

SDG: 31403236.029 Task #09.02

XEN MID

XEN MID

Protocol	Laboratory
SW846	XEN MID
TAL SOP	XEN MID
SW846	XEN MID
SW846	XEN MID
MCAWW	XEN MID
SW846	XEN MID

SW846

ASTM

#### **Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### **Laboratory References:**

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

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#### Sample Summary

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-2104-1

SDG: 31403236.029 Task #09.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2104-1	BH01	Solid	03/11/22 09:35	03/18/22 11:30	1
890-2104-2	BH01A	Solid	03/11/22 09:40	03/18/22 11:30	2
890-2104-3	BH02	Solid	03/11/22 10:20	03/18/22 11:30	1
890-2104-4	BH02A	Solid	03/11/22 10:30	03/18/22 11:30	2
890-2104-5	BH03	Solid	03/11/22 11:45	03/18/22 11:30	1
890-2104-6	внза	Solid	03/11/22 11:55	03/18/22 11:30	2

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Project Manager: Kalei Jennings Company Name: WSP USA Inc.	Hobbs, NM (575-392-	7550) Phoenix,AZ (48)	0-355-0900) Atlanta,GA (7	Hobbs, NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)	20-2000) <u>www.xenco.com</u>	com rage 1 01
		Bill to: (if different)	Kyle Littrell		Work Or	Work Order Comments
l		Company Name:	XTO Energy		Program: UST/PST ☐PRP ☐Brownfields ☐RRC	rownfields RRC Superfund
Address: 3300 North A Street		Address:	3104 E Green Street		State of Project:	
te ZIP:		City, State ZIP:	Carlsbad, NM 88220		Reporting:Level II Level III PST/UST	PST/UST LTRRP LLevel IV
	Email	Alexis.Castro@w	Email: Alexis. Castro@wsp.com; Kalei.Jennings@wsp.com		Deliverables: EDD	ADaPT Other:
Project Name: Corral Canyon 5-32		Turn Around		ANALYSIS REQUEST	ST	Work Order Notes
er: 31403236.029	)9.02 Rc	tine				INC: nAPP2201944299
P.O. Number:	Rush: Q	WHT C				AFE: DD.2017.04580.CAP
Sampler's Name: Alexis Castro	Due	Due Date:				CMP.01
SAMPLE RECEIPT Temp Blank:	k: (Yes) No Wet Ice: (Yes	No N	-			
Temperature (°C): O.u./O.4			_			
Yes	T	3	8021			
Sample Custody Seals: Yes No N/A	Total Containers:		EPA (		-	lab, if received by 4:30pm
Sample Identification Matrix	Date Time Sampled	Depth	TPH (E			Sample Comments
BH01 S	3/11/2022 0935	1' 1	× ×			
BH01A S	3/11/2022 0940	2'	× ×			
BH02 S	3/11/2022 1020	1	× ×			
BH02A S	3/11/2022 1030	21	× ×			
BH03 S	3/11/2022 1145	1.	× ×			
BH03A S	3/11/2022 1155	2' 1	× ×			
	76		K			
Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	8RC	CLP / SPLP 6010: 8RCRA	Sb As Ba Be I Sb As Ba Be	Ca Cr Co Cu Fe Pb Cr Co Cu Pb Mn Mo	Mg Mn Mo Ni K Se Ag SiO2 Ni Se Ag Tl U	02 Na Sr Ti Sn U V Zn 1631 / 245.1 / 7470 / 7471
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of the cost of samples and a charge of \$5 for each sample submitted to Xenco. But not analyzed. These terms will be enforced unless previously negotiated.	t of samples constitutes a valid p nples and shall not assume any re to each project and a charge of \$	urchase order from clien esponsibility for any loss	nt company to Xenco, its affi ses or expenses incurred by	illates and subcontractors. It assign the client if such losses are due to vzed. These terms will be enforced t	actors. It assigns standard terms and conditions uses are due to circumstances beyond the control libe enforced unless previously negotiated.	
~ III	Received by: (Signature	ure)	Date/Time	Relinquished by: (Signature)	Received by:	(Signature) Date/Time
	Che Carl	3	150°11 EBX1			
G C						

**Eurofins Carlsbad** 

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1089 N Canal St. Carlsbad, NM 88220		Chain of Custody Record	olsno i	ישא ועם	2			_							
1.65	Sampler			Lab PM					C	Carrier Tracking No(s)	cking N	(s)			COC No:
Client Contact: Shipping/Receiving	Phone:			E-Mail	kramero	- Afino	1		0	State of Origin.	rigin				Page
Company Eurofins Environment Testing South Centr				Z ∂o	Accreditations Required (See note):  NELAP - Louisiana, NELAP - Texas	Required (See	(See note)	P - Tex	L		į				Job #:
Address 1211 W Florida Ave, ,	Due Date Requested 3/21/2022	Ö.					Ą	Analysis Requested	Regu	estec	_				Preservation Codes
City Midland	TAT Requested (days):	ays):				$\dashv$	$\exists$	$\dashv$	긔	$\dashv$		4	ㅓ		A - HCL B NaOH C - Zn Acetat
State, Zip: TX, 79701					ТРН										D - Nitric Acid E NaHSO4
Phone: 432-704-5440(Tel)	PO #:					e						<del>-</del>			
Email	WO#:			or No	lo)	Chlorid	EX								☐ ASCOIDIC ACID ☐ Ice ☐ DI Water
Project Name: Corral Canvon 5-32	Project #:			(Yes	or I	ACH	D) B1								K-EDTA
Site	SSOW#:			imple	D (Ye	/DI_LE	ilo (MC							200	Other:
			Sample Type (	Matrix Sittered Si	m MS/MS	DD_Calc 	5035FP_C	TEX_GCV						lumber o	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample (	<u> </u>	<u> </u>	Perfor			Total_E					<u> </u>	Total N	Spec
	$\bigvee$	L	- 930000		X									X	
вно1 (890-2104-1)	3/11/22	09 35 Mountain		Solid	×	×	×	×						_	
BH01A (890-2104-2)	3/11/22	09 40 Mountain		Solid	×	×	×	×					$\dashv$	-	
BH02 (890-2104-3)	3/11/22	10 20 Mountain		Solid	×	×	×	×					$\dashv$	_	
BH02A (890-2104-4)	3/11/22	10 30 Mountain		Solid	×	×	×	×						٠.	
вноз (890-2104-5)	3/11/22	11 45 Mountain		Solid	×	×	×	×						_	
ВНЗА (890-2104-6)	3/11/22	11 55 Mountain		Solid	×	×	×	×		+			1-1	-	
										_					
Note Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/fests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC alternations will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central LLC.	nt Testing South Cent bove for analysis/tests antral LLC attention in	ral, LLC places th s/matrix being and nmediately If all	ne ownership of malyzed, the sample requested accred	ethod, analyte es must be shi litations are cu	& accreditation	ion comp the Euro return th	liance up fins Envi e signed	on out si ironment i Chain of	ibcontrac Testing S Custody	t laborat outh Ce attesting	ories 1 ntral LL ) to saic	his san C labor compli	iple shi atory or ance to	other i	s forwarded to nstructions working Environme
Possible Hazard Identification					Sample	Dispos	al (At	ee ma)	□ be as	essec	if sa	nples	□are	taine	Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)
Deliverable Requested I II III IV Other (specify)	Primary Deliverable Rank	able Rank 2			Special Instructions/QC Requirements	al Instructions/QC	ons/QC	Requi	ements	ents	27	ľ		2	Successor of
Empty Kit Relinquished by		Date		-	Time.		5		l	Met	Method of Shipment:	hipmer			
Relinquished by: 0W 31822	Date/Time		Соп	Company	Recei	Received by:	7	1	l	ŀ			7		3
	Date/Time:		Соп	Company	Recei	Received by	4					Date/Time	ne		
Relinquished by	Date/Time <sup>-</sup>		Com	Company	Recei	Received by:	ľ					Date/Time:	ne:		
Custody Seals Intact: Custody Seal No					Coole	Cooler Temperature(s) °C	ture(s)	ad	Other Remarks	rks	L	l			



## **Environment Testing America**

#### **ANALYTICAL REPORT**

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

Laboratory Job ID: 890-2127-1

Laboratory Sample Delivery Group: 31403236.029 task 09.02

Client Project/Site: Corral Canyon 5-32

For:

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

Attn: Kalei Jennings

JURAMER

Authorized for release by: 3/24/2022 8:02:54 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

LINKS .....

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Released to Imaging: 4/20/2022 9:01:53 AM

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.

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#### **Definitions/Glossary**

Client: WSP USA Inc. Job ID: 890-2127-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.029 task 09.02

**Qualifiers** 

**GC VOA** 

Qualifier **Qualifier Description** 

Indicates the analyte was analyzed for but not detected.

**GC Semi VOA** 

Qualifier **Qualifier Description** 

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) Minimum Detectable Concentration (Radiochemistry) MDC

MDL Method Detection Limit MLMinimum 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)

Reporting Limit or Requested Limit (Radiochemistry) RL

Relative Percent Difference, a measure of the relative difference between two points **RPD** 

**TFF** Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Client Sample Results**

Client: WSP USA Inc. Job ID: 890-2127-1

SDG: 31403236.029 task 09.02 Project/Site: Corral Canyon 5-32

Client Sample ID: SS04

Lab Sample ID: 890-2127-1 Date Collected: 03/22/22 09:40 **Matrix: Solid** Date Received: 03/22/22 16:05

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
Toluene	< 0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		03/24/22 07:30	03/24/22 18:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			03/24/22 07:30	03/24/22 18:55	1
1,4-Difluorobenzene (Surr)	95		70 - 130			03/24/22 07:30	03/24/22 18:55	1
Method: Total BTEX - Total B1	TEX Calcula	tion						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			03/24/22 19:58	1
Method: 8015 NM - Diesel Rar	ngo Organic	s (DPO) (G	<b>:</b> C)					
	•	. , .	•					
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH	<50.0		50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 03/24/22 19:46	Dil Fac
Total TPH	<50.0	U	50.0		<u>D</u>	Prepared		Dil Fac
	<50.0	U	50.0		<u>D</u> 	Prepared Prepared		Dil Fac
Total TPH  Method: 8015B NM - Diesel Ra Analyte  Gasoline Range Organics	<50.0	ics (DRO) Qualifier	50.0 (GC)	mg/Kg		<u> </u>	03/24/22 19:46	Dil Fac
Total TPH  Method: 8015B NM - Diesel Ro Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 ange Organ Result	Uics (DRO) Qualifier	50.0 (GC)	mg/Kg		Prepared 03/24/22 08:49	03/24/22 19:46  Analyzed	Dil Fac
Total TPH  Method: 8015B NM - Diesel Ra Analyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0  ange Organ Result <50.0	ics (DRO) Qualifier U	50.0 (GC) RL 50.0	mg/Kg  Unit mg/Kg		Prepared 03/24/22 08:49 03/24/22 08:49	03/24/22 19:46  Analyzed  03/24/22 15:20	Dil Fac
Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0  ange Organ Result <50.0 <50.0	ics (DRO) Qualifier U	50.0 (GC) RL 50.0 50.0	mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/24/22 08:49 03/24/22 08:49	03/24/22 19:46  Analyzed 03/24/22 15:20 03/24/22 15:20	1 Dil Fac
Method: 8015B NM - Diesel Ranalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate	<50.0  ange Organ Result <50.0 <50.0 <50.0	ics (DRO) Qualifier U	50.0  (GC)  RL  50.0  50.0  50.0	mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/24/22 08:49 03/24/22 08:49 03/24/22 08:49	03/24/22 19:46  Analyzed 03/24/22 15:20 03/24/22 15:20 03/24/22 15:20	1
Total TPH  Method: 8015B NM - Diesel Ranalyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane	<50.0  ange Organ Result <50.0 <50.0 <50.0 <%Recovery	ics (DRO) Qualifier U	50.0  (GC)  RL  50.0  50.0  50.0  Limits	mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/24/22 08:49 03/24/22 08:49 03/24/22 08:49  Prepared 03/24/22 08:49	03/24/22 19:46  Analyzed 03/24/22 15:20 03/24/22 15:20 03/24/22 15:20 Analyzed	Dil Fac
Total TPH  Method: 8015B NM - Diesel Ranalyte  Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36)  Surrogate 1-Chlorooctane o-Terphenyl	<50.0  ange Organ Result <50.0 <50.0 <50.0  %Recovery 127 125	U  Qualifier  U  U  Qualifier	50.0  (GC)  RL  50.0  50.0  50.0  Limits  70 - 130  70 - 130	mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/24/22 08:49 03/24/22 08:49 03/24/22 08:49  Prepared 03/24/22 08:49	03/24/22 19:46  Analyzed 03/24/22 15:20 03/24/22 15:20  03/24/22 15:20  Analyzed 03/24/22 15:20	Dil Face
Total TPH  Method: 8015B NM - Diesel Ra	<50.0  ange Organ Result <50.0 <50.0 <50.0  %Recovery 127 125 Chromatogra	U  Qualifier  U  U  Qualifier	50.0  (GC)  RL  50.0  50.0  50.0  Limits  70 - 130  70 - 130	mg/Kg  Unit mg/Kg  mg/Kg		Prepared 03/24/22 08:49 03/24/22 08:49 03/24/22 08:49  Prepared 03/24/22 08:49	03/24/22 19:46  Analyzed 03/24/22 15:20 03/24/22 15:20  03/24/22 15:20  Analyzed 03/24/22 15:20	Dil Fac

Client: WSP USA Inc. Job ID: 890-2127-1 Project/Site: Corral Canyon 5-32

SDG: 31403236.029 task 09.02

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

Lab Sample ID: MB 880-21823/5-A

**Matrix: Solid** 

**Analysis Batch: 22265** 

**Client Sample ID: Method Blank** 

**Prep Type: Total/NA** 

Prep Batch: 21823

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		03/24/22 07:30	03/24/22 17:25	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		03/24/22 07:30	03/24/22 17:25	1

MB MB

Surrogate	%Recovery Q	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98	70 - 130	03/24/22 07:30	03/24/22 17:25	1
1,4-Difluorobenzene (Surr)	102	70 - 130	03/24/22 07:30	03/24/22 17:25	1

Lab Sample ID: LCS 880-21823/1-A

Matrix: Solid

**Analysis Batch: 22265** 

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 21823

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09555		mg/Kg		96	70 - 130	
Toluene	0.100	0.09727		mg/Kg		97	70 - 130	
Ethylbenzene	0.100	0.1036		mg/Kg		104	70 - 130	
m-Xylene & p-Xylene	0.200	0.2413		mg/Kg		121	70 - 130	
o-Xylene	0.100	0.1175		mg/Kg		117	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	105	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Lab Sample ID: LCSD 880-21823/2-A

**Matrix: Solid** 

**Analysis Batch: 22265** 

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA Prep Batch: 21823

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08471		mg/Kg		85	70 - 130	12	35
Toluene	0.100	0.08475		mg/Kg		85	70 - 130	14	35
Ethylbenzene	0.100	0.08895		mg/Kg		89	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.2074		mg/Kg		104	70 - 130	15	35
o-Xylene	0.100	0.1028		mg/Kg		103	70 - 130	13	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1.4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-12762-A-1-E MS

**Matrix: Solid** 

**Analysis Batch: 22265** 

**Client Sample ID: Matrix Spike** 

**Prep Type: Total/NA** Prep Batch: 21823

,										
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U	0.0994	0.09084		mg/Kg	_	91	70 - 130	
Toluene	< 0.00202	U	0.0994	0.09058		ma/Ka		91	70 - 130	

Client: WSP USA Inc. Job ID: 890-2127-1 SDG: 31403236.029 task 09.02 Project/Site: Corral Canyon 5-32

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

Lab Sample ID: LCS 880-22246/2-A

Lab Sample ID: LCSD 880-22246/3-A

Lab Sample ID: 880-12790-A-9-C MS

**Matrix: Solid** 

**Matrix: Solid** 

**Analysis Batch: 22241** 

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Prep Batch: 22246

LCS LCS

%Recovery Qualifier Limits Surrogate 1-Chlorooctane 114 70 - 130 o-Terphenyl 119 70 - 130

**Client Sample ID: Lab Control Sample Dup** 

122

**Prep Type: Total/NA** 

Prep Batch: 22246

20

**Analysis Batch: 22241** 

Diesel Range Organics (Over

RPD LCSD LCSD %Rec. Spike Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Gasoline Range Organics 1000 949.6 mg/Kg 95 70 - 130 4 20 (GRO)-C6-C10

1220

mg/Kg

1000

C10-C28)

LCSD LCSD

Surrogate %Recovery Qualifier Limits 1-Chlorooctane 119 70 - 130 70 - 130 o-Terphenyl 123

**Client Sample ID: Matrix Spike** 

70 - 130

**Prep Type: Total/NA** 

Prep Batch: 22246

**Analysis Batch: 22241** Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Limits **Analyte** Unit D %Rec

<49.8 U Gasoline Range Organics 998 970.1 mg/Kg 97 70 - 130 (GRO)-C6-C10 Diesel Range Organics (Over 998 <49.8 U 1060 mg/Kg 101 70 - 130 C10-C28)

**Matrix: Solid** 

MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 102 70 - 130 o-Terphenyl 90 70 - 130

Lab Sample ID: 880-12790-A-9-D MSD Client Sample ID: Matrix Spike Duplicate **Matrix: Solid** 

**Analysis Batch: 22241** 

Prep Type: Total/NA Prep Batch: 22246

Sample Sample Spike MSD MSD %Rec. **RPD** Result Qualifier Added Result Qualifier Limits **RPD** Limit **Analyte** Unit D %Rec Gasoline Range Organics <49.8 U 999 989.4 99 70 - 130 2 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over <49.8 U 999 935.7 mg/Kg 89 70 - 130 12 20

C10-C28)

MSD MSD

%Recovery Qualifier Limits Surrogate 1-Chlorooctane 94 70 - 130 77 o-Terphenyl 70 - 130

#### **QC Association Summary**

 Client: WSP USA Inc.
 Job ID: 890-2127-1

 Project/Site: Corral Canyon 5-32
 SDG: 31403236.029 task 09.02

**GC VOA** 

Prep Batch: 21823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	5035	
MB 880-21823/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-21823/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-21823/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12762-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-12762-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

**Analysis Batch: 22265** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	8021B	21823
MB 880-21823/5-A	Method Blank	Total/NA	Solid	8021B	21823
LCS 880-21823/1-A	Lab Control Sample	Total/NA	Solid	8021B	21823
LCSD 880-21823/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	21823
880-12762-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	21823
880-12762-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	21823

**Analysis Batch: 22322** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	Total BTEX	

**GC Semi VOA** 

**Analysis Batch: 22241** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	8015B NM	22246
MB 880-22246/1-A	Method Blank	Total/NA	Solid	8015B NM	22246
LCS 880-22246/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22246
LCSD 880-22246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22246
880-12790-A-9-C MS	Matrix Spike	Total/NA	Solid	8015B NM	22246
880-12790-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	22246

Prep Batch: 22246

<b>Lab Sample ID</b> 890-2127-1	Client Sample ID SS04	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-22246/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22246/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22246/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-12790-A-9-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-12790-A-9-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

**Analysis Batch: 22314** 

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2127-1	SS04	Soluble	Solid	DI Leach	
MB 880-22262/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22262/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22262/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

**Eurofins Carlsbad** 

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#### **Lab Chronicle**

Client: WSP USA Inc. Job ID: 890-2127-1 Project/Site: Corral Canyon 5-32 SDG: 31403236.029 task 09.02

Client Sample ID: SS04 Lab Sample ID: 890-2127-1

Date Collected: 03/22/22 09:40 Matrix: Solid Date Received: 03/22/22 16:05

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			21823	03/24/22 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	22265	03/24/22 18:55	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1	22322	03/24/22 19:58	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	22314	03/24/22 19:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			22246	03/24/22 08:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	22241	03/24/22 15:20	AJ	XEN MID
Soluble	Leach	DI Leach			22262	03/24/22 10:45	SC	XEN MID
Soluble	Analysis	300.0		1	22267	03/24/22 17:28	SC	XEN MID

#### **Laboratory References:**

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

#### **Method Summary**

Client: WSP USA Inc.

Project/Site: Corral Canyon 5-32

Job ID: 890-2127-1

SDG: 31403236.029 task 09.02

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

#### **Protocol References:**

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

#### **Laboratory References:**

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

**Eurofins Carlsbad** 

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Work Order No:

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ture) Date/Time	Received by: (Signature)	ture)	Relinquished by: (Signature)		Date/Time		ıre)	Received by: (Signature)	Received		/: (Signature)	Relinquished by: (Signature)
	assigns standard terms and conditions due to circumstances beyond the control streed unless previously negotiated.	s standard term circumstances b nless previously	olice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions is 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 is a control of the contr	incurred by ut not analyz	mpany to Xe vr expenses to Xenco, bu	y losses or submitted t	chase order from ponsibility for any lor each sample s	itutes a valid pur assume any resi a charge of \$5 f	samples consti	quishment of est of sample e applied to e	document and reling thisble only for the co arge of \$75.00 will be	otice: Signature of this service. Xenco will be Xenco. A minimum ch
Na Sr TI Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Hg	SiO2	e Pb Mg Mn Mo N Mo Ni Se Ag Ti U	Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U	la Be B Ba Be Co	Sb As Ba Sb As Ba		CRA 13PPM Texas 11 AITCLP / SPLP 6010: 8RCRA	8RCRA 13PPM TCLP / SPLP		6020: 3) to be an	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010 Circle Method(s) a
Discrete				×	×	-	0.5	9:40	03/22/22	တ	)4	SS04
Sample Comments				Chloric		Numb	Depth	Time Sampled	Date Sampled	Matrix	ntification	Sample Identification
lab, if received by 4:30pm					PA 801 EPA 0=	er of C	C	Total Containers:	Tota	No R	Yes	Sample Custody Seals:
	ay .	27 Chain of Custody	890-2127 Ch	-	-	onta	1 4	NALCOL	2		+	Received Intact:
				+	)	iners	7 <u> </u>	Thermometer ID			1.2/	Temperature (°C):
						•	Yes No	Wet Ice: (Yes	(es) No	Temp Blank:		SAMPLE RECEIPT
CMP.01							Due Date:	Due			Mercy Rotich	Sampler's Name:
AFE:DD.2017.04580.CAP.	_						Rush: 24 hr	Rush		14299	NAPP 2201944299	O. Number:
							ine	Routine	Task 09.02	31403236.029,	31403	Project Number:
Work Order Notes		JEST	ANALYSIS REQUEST				Turn Around	Τυ		15-32	Corral Canyon 5-32	Project Name:
PT Other:	es: EDD ADaPT	Deliverables: EDD	Email: Kalei.Jennings@wsp.com, Adrian.Baker@exxonmobil.com.	\drian.Ba	sp.com, /	ngs@ws	Kalei.Jennin	Email:			432 704 5178	Phone:
ST TO	Tevel III	Reporting:Level II	0	Carlsbad, NM 88220	Carlsbad,		City, State ZIP:			s 79705	Midland, Texas 79705	City, State ZIP:
		State o	7	3104 E Green Street	3104 E Gr	(3)	Address:			Street	3300 North A Street	Address:
Brownfields RAC Superfund	g	Program: UST/PST		ду	XTO Energy		Company Name:				WSP USA	Company Name:
Comments	Work Order Comments			ker	Adrian Baker	t)	Bill to: (if different)			ν,	Kalei Jennings	Project Manager:
m Page1_of1	www.xenco.com	1-620-2000)	Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)	Atlanta,GA	355-0900)	AZ (480-	7550) Phoenix,	s,NM (575-392-	Hobbs	JRIES	ABORATORIES	-
			Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296	15)585-344	Paso,TX (9	440) EL I	1,TX (432-704-5	Midland			スロング	

#### **Login Sample Receipt Checklist**

Client: WSP USA Inc. Job Number: 890-2127-1 SDG Number: 31403236.029 task 09.02

List Source: Eurofins Carlsbad

Login Number: 2127 List Number: 1

HTs)

Creator: Clifton, Cloe		
Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	

Samples were received on ice. True True Cooler Temperature is acceptable. Cooler Temperature is recorded. True True COC is present. 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 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

True

N/A

True

N/A

Sample Preservation Verified. There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Sample bottles are completely filled.

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

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

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

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

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

CONDITIONS

Action 95229

#### **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	95229
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created	Condition	Condition
Ву		Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	4/20/2022