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

July 28, 2021

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

RE: Closure Request
Canvasback 13 Federal 003H
Incident Number NAPP2115932981
Eddy County, New Mexico

To Whom It May Concern:

WSP USA, Inc. (WSP) on behalf of Concho Operating, LLC (Concho), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Canvasback 13 Federal 003H (Site) located in Unit B, Section 13, Township 24 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of crude oil and produced water at the Site. Based on the excavation activities and soil sample laboratory analytical results, Concho is submitting this Closure Request and requesting no further action (NFA) for Incident Number NAPP2115932981.

RELEASE BACKGROUND

On May 22, 2021, internal corrosion on the hammer union between tubing resulted in the release of approximately 5 barrels (bbls) of produced water and 1 bbl of crude oil onto the surface of the well pad. No released fluids were recovered. Concho reported the release to the New Mexico Oil Conversation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on June 8, 2021. The release was assigned Incident Number NAPP2115932981.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest permitted groundwater well with published depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well C-03555, located approximately 2.68 miles northeast of the Site. The groundwater well records indicate a depth to water of 380 feet bgs and a total depth of 600 feet bgs. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated referenced well records are included in Attachment 1.

The closest continuously flowing water or significant watercourse to the Site is a freshwater pond, located approximately 0.56 miles west of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On May 27, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. WSP personnel collected three preliminary assessment soil samples (SS01 through SS03) within the release extent from a depth ranging from ground surface to 0.25 feet bgs to assess the lateral extent of impacted soil. Soil from the preliminary soil samples 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.

Preliminary soil samples SS01 through SS03 were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-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 SS03 indicated that TPH and/or TPH-GRO/TPH-DRO concentrations exceeded the Closure Criteria. Chloride

concentrations were compliant with the Closure Criteria in all three preliminary soil samples. Based on visible staining in the release area, field screening activities, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

DELINEATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

On June 4, 2021, WSP personnel returned to the Site to oversee additional site assessment activities. Three potholes (PH01 through PH03) were advanced via backhoe within the release extent to assess the vertical extent of impacted soil. Potholes PH01 through PH03 were advanced at the SS01 through SS03 preliminary soil sample locations. Delineation soil samples were collected from potholes PH01 through PH03 from depths ranging from 1-foot to 6 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation pothole locations are depicted on Figure 3. The delineation soil samples were collected, handled, and analyzed as described above.

Laboratory analytical results for the delineation soil samples collected from potholes PH01 through PH03 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and successfully defined the vertical extent of impacted soil.

EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS

Between June 22, 2021 and July 7, 2021, WSP personnel returned to the Site to oversee excavation activities as indicated by visible staining in the release area, field screening activities, and laboratory analytical results for the preliminary soil samples. Excavation activities were completed to remove the surficial staining in the release footprint and excavate the impacted soil in the areas surrounding preliminary soil samples SS01 through SS03. Excavation activities were performed using a track hoe and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation was completed to depths ranging from 1-foot to 3 feet bgs.

Following removal of impacted soil, WSP collected 5-point composite soil samples every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite sidewall samples SW01 through SW03 were collected from the sidewalls of the deeper eastern and southern portions of the excavation, from depths ranging from the ground surface to 3 feet bgs. Composite floor samples FS01 through FS19, and FS14A were collected from the floor of the excavation from depths ranging from 1-foot bgs to 3 feet bgs. Due to the shallow depth of the western portion of the

excavation, the floor samples in this area represented the floor and sidewalls of the excavation. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 4. Photographic documentation is included in Attachment 3.

Laboratory analytical results for excavation sidewall samples SW01 through SW03 and excavation floor samples FS01 through FS19, and FS14A indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, at the completion of excavation activities, all excavation sidewall and floor soil samples were compliant with the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Attachment 4.

The final excavation extent measured approximately 3,775 square feet. At the completion of excavation activities, approximately 240 cubic yards of impacted soil were removed. The impacted soil was transported and properly disposed of at the Northern Delaware Basin Landfill located in Jal, New Mexico. After completion of confirmation sampling, the excavation area was fenced.

CLOSURE REQUEST

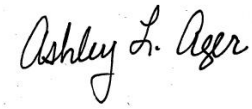
Site assessment and excavation activities were conducted to address the May 22, 2021 release of crude oil and produced water at the Site. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, at the completion of excavation activities, all excavation sidewall and floor soil samples were compliant with the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further remediation is required. Concho will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. WSP and Concho believe the remedial actions completed are protective of human health, the environment, and groundwater. As such, Concho respectfully requests no further action for Incident Number NAPP2115932981. The finalized version of the Form C-141 is included in Attachment 5.

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

Sincerely,

WSP USA Inc.



William Mather
Assistant Consultant

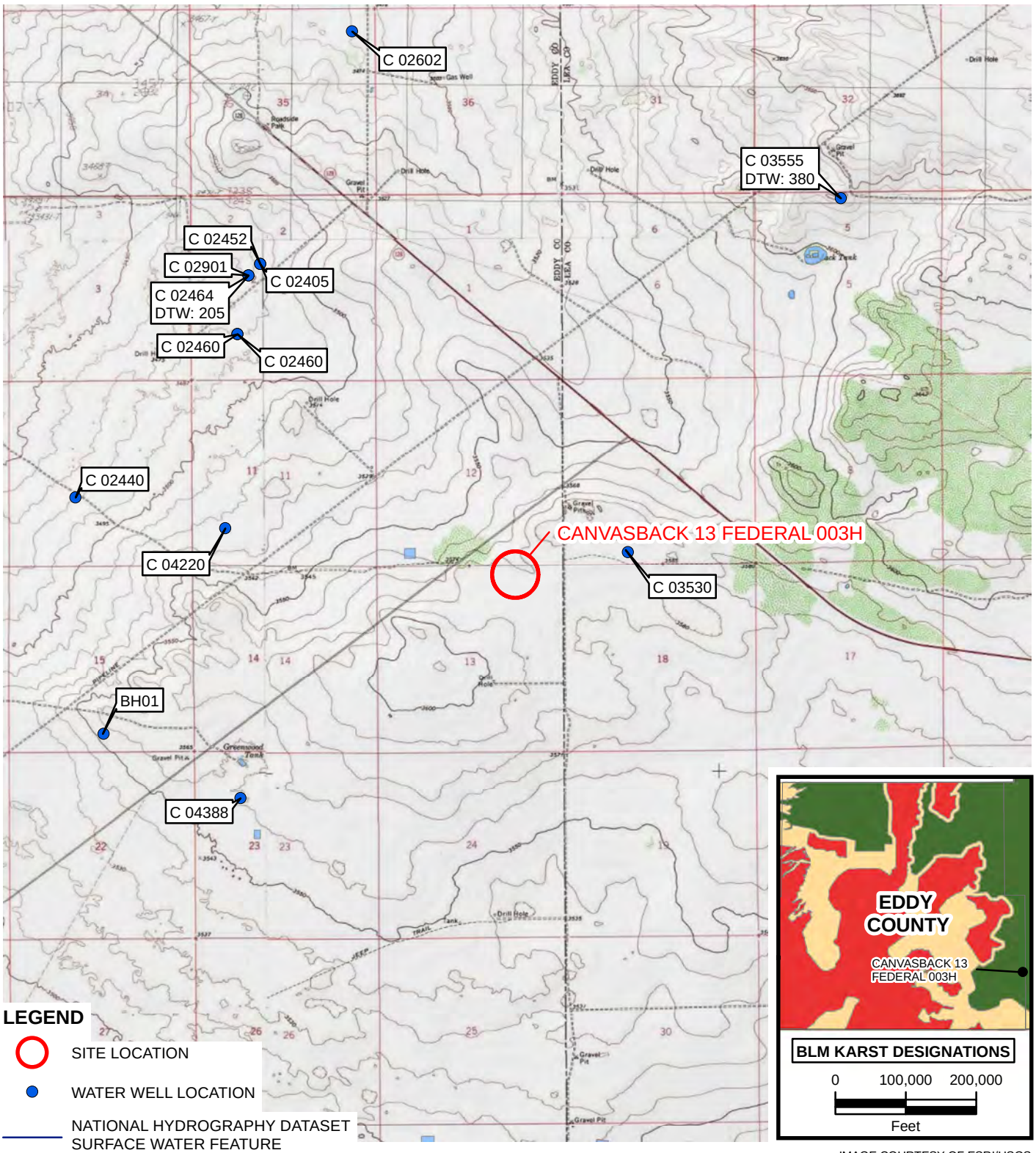
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Jacqui Harris, Concho Operating, LLC
Bureau of Land Management

Attachments:

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

FIGURES



LEGEND

- SITE LOCATION
- WATER WELL LOCATION
- NATIONAL HYDROGRAPHY DATASET SURFACE WATER FEATURE
- NATIONAL WETLANDS INVENTORY SURFACE WATER FEATURE
- LOW KARST
- MEDIUM KARST
- HIGH KARST

DTW: DEPTH TO WATER IN FEET
BLM: BUREAU OF LAND MANAGEMENT
TD: TOTAL DEPTH IN FEET
NOTE: INCIDENT NUMBER NAPP2115932981

FIGURE 1
SITE LOCATION MAP
CANVASBACK 13 FEDERAL 003H
UNIT B SEC 13 T24S R31E
EDDY COUNTY, NEW MEXICO
CONCHO OPERATING

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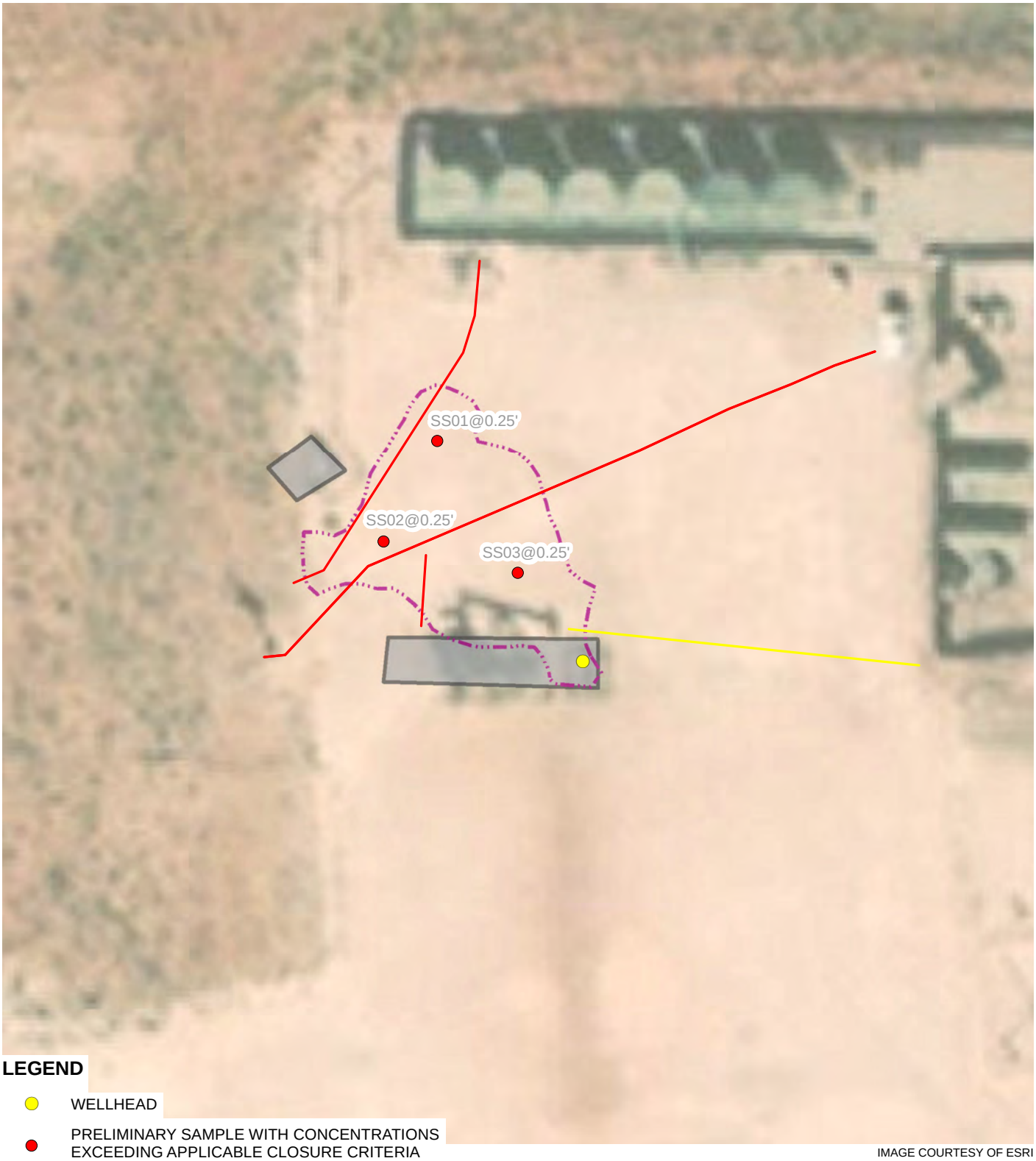


LEGEND

- WELLHEAD
- PRELIMINARY SAMPLE WITH CONCENTRATIONS EXCEEDING APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- GAS/PIPELINE
- INFRASTRUCTURE
- RELEASE EXTENT

NOTE: INCIDENT NUMBER NAPP2115932981
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 40 80
Feet

N

FIGURE 2
PRELIMINARY SOIL SAMPLE LOCATIONS
CANVASBACK 13 FEDERAL 003H
UNIT B SEC 13 T24S R31E
EDDY COUNTY, NEW MEXICO
CONCHO OPERATING

P:\Concho Operating\GIS\MXD\31402909.06_CANVASBACK 13 FED 3H\31402909.06_FIG02_PRELIMINARY_2021.mxd

IMAGE COURTESY OF ESRI

LEGEND

- WELLHEAD
- DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- GAS LINE
- RELEASE EXTENT
- INFRASTRUCTURE

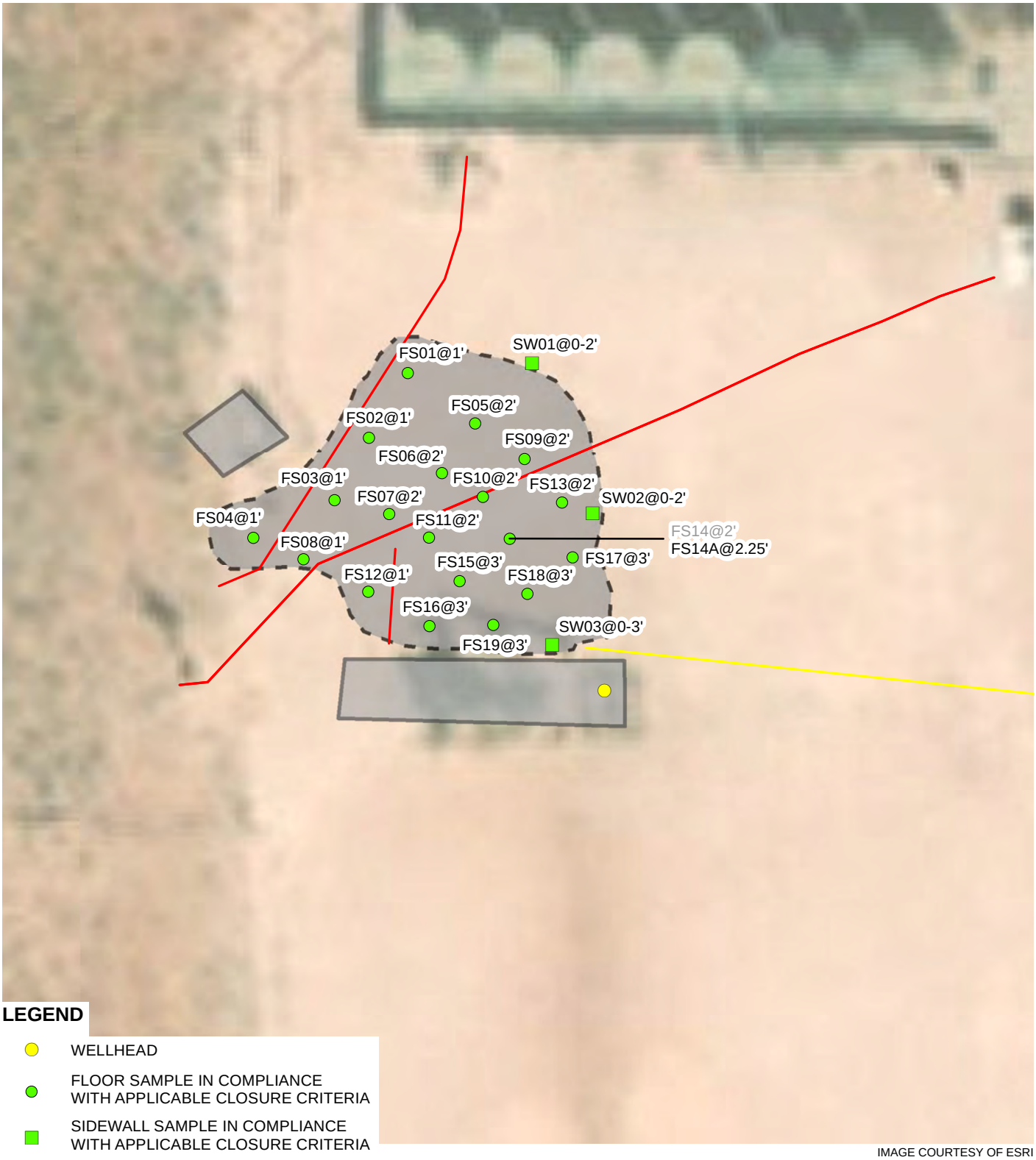
NOTE: INCIDENT NUMBER NAPP2115932981
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

0 50 100
Feet

N

FIGURE 3
DELINEATION SOIL SAMPLE LOCATIONS
CANVASBACK 13 FEDERAL 003H
UNIT B SEC 13 T24S R31E
EDDY COUNTY, NEW MEXICO
CONCHO OPERATING

P:\Concho Operating\GIS\MXD\31402909.06_CANVASBACK 13 FED 3H\31402909.06_FIG03_DELINEATION_2021.mxd



LEGEND

- WELLHEAD
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- ELECTRIC LINE
- GAS LINE
- EXCAVATION EXTENT
- INFRASTRUCTURE

NOTE: INCIDENT NUMBER NAPP2115932981
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 30 60
Feet

N

FIGURE 4
EXCAVATION SOIL SAMPLE LOCATIONS
CANVASBACK 13 FEDERAL 003H
UNIT B SEC 13 T24S R31E
EDDY COUNTY, NEW MEXICO
CONCHO OPERATING

P:\Concho Operating\GIS\MXD\31402909.06_CANVASBACK 13 FED 3H\31402909.06_FIG04_EXCAVATION_2021.mxd

TABLES

Table 1

Soil Analytical Results
Canvasback 13 Federal 003H
Incident Number NAPP2115932981
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
Preliminary Soil Samples										
SS01	05/27/2021	0.25	<0.0402	0.612	<49.9	2,140	278	**2,140**	2,420	5,490
SS02	05/27/2021	0.25	<0.00998	0.259	<49.9	1,590	204	**1,590**	1,790	10,500
SS03	05/27/2021	0.25	<0.0400	2.72	<250	6,110	748	**6,110**	**6,860**	11,400
Delineation Soil Samples										
PH01	06/04/2021	1	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	1,120
PH01A	06/04/2021	2	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	88.3
PH02	06/04/2021	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	24.3
PH02A	06/04/2021	6	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	14.5
PH03	06/04/2021	1	<0.00200	0.00913	<49.8	695	<49.8	695	695	2,770
PH03A	06/04/2021	4.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	223
Excavation Floor Samples										
FS01	06/22/2021	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	144
FS02	06/23/2021	1	<0.00202	0.127	<49.7	<49.7	<49.7	<49.7	<49.7	18.4
FS03	06/22/2021	1	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	135
FS04	06/22/2021	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	61.5
FS05	06/22/2021	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	68.4
FS06	06/22/2021	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	183
FS07	06/22/2021	2	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	27.8
FS08	06/22/2021	1	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	290
FS09	06/23/2021	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	265
FS10	06/23/2021	2	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	164
FS11	06/23/2021	2	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	465

Table 1

Soil Analytical Results
Canvasback 13 Federal 003H
Incident Number NAPP2115932981
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	NE	NE	NE	**1,000**	**2,500**	**20,000**
FS12	06/23/2021	1	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	189
FS13	06/23/2021	2	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	478
FS14	06/23/2021	2	<0.00199	<0.00398	<50.0	58.6	<50.0	58.6	58.6	**726**
FS14A	07/07/2021	2.25	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	356
FS15	06/23/2021	3	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	61.1
FS16	06/23/2021	3	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	61.7
FS17	06/23/2021	3	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	107
FS18	06/23/2021	3	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	224
FS19	06/23/2021	3	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	208
Excavation Sidewall Samples										
SW01	06/23/2021	0 - 2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	326
SW02	06/23/2021	0 - 2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	11.2
SW03	06/23/2021	0 - 3	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	352

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - 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

Text soil was excavated

ATTACHMENT 1: REFERENCED WELL RECORD

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Twn	Rng	X	Y
NA	C 03555 POD1	2	2	1	05	24S	32E	622748	3569233

Driller License:	1654	**Driller Company:**	NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC		
Driller Name:					
Drill Start Date:	10/20/2013	**Drill Finish Date:**	10/21/2013	**Plug Date:**	
Log File Date:	11/07/2013	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	5 GPM
Casing Size:	6.00	**Depth Well:**	600 feet	**Depth Water:**	380 feet

Water Bearing Stratifications:	Top	Bottom	Description
	475	550	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	460	520

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

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Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

Agency code = usgs
site_no list =
- 321421103464901

Minimum number of levels = 1
Save file of selected sites to local disk for future upload

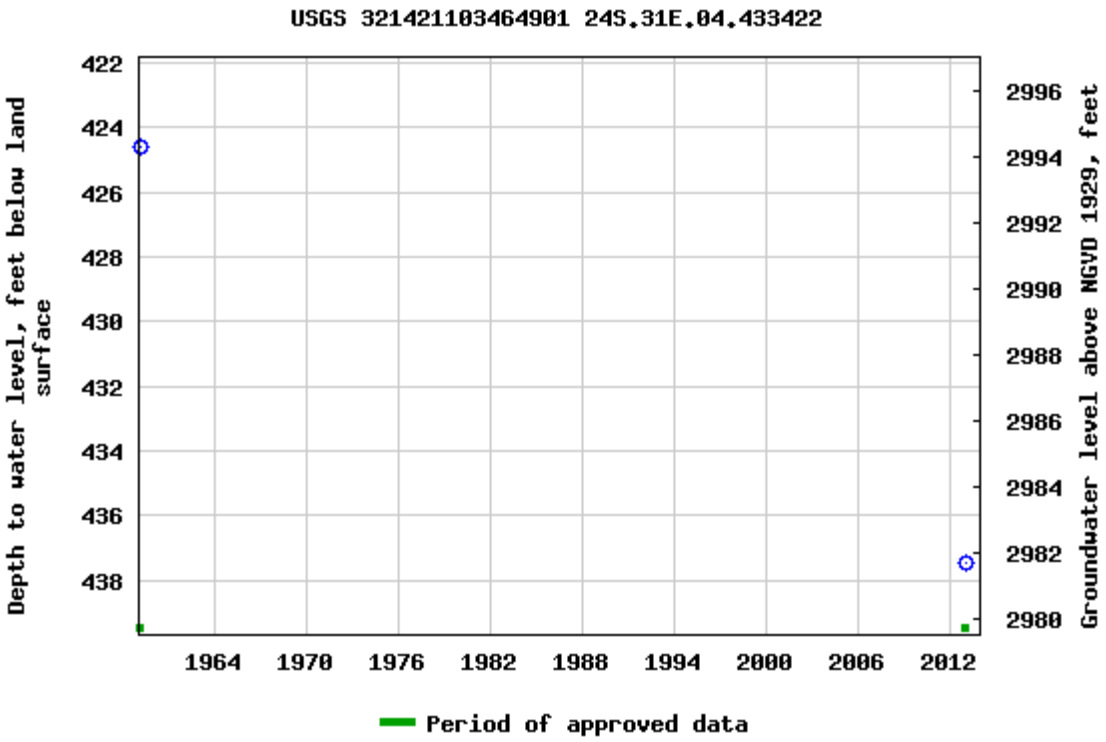
USGS 321421103464901 24S.31E.04.433422

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°14'23.7", Longitude 103°46'47.8" NAD83
Land-surface elevation 3,419.00 feet above NGVD29
The depth of the well is 627 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
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ATTACHMENT 2: LITHOLOGIC/SAMPLING LOG

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH01	Date: 6/4/2021
Site Name:	Canvasback 13 Fed 3H
RP or Incident Number:	
LTE Job Number:	31402909.06
Logged By WM	Method: Backhoe
Lat/Long: 32.224269, -103.727869	Field Screening: Chloride, PID
Hole Diameter: 1.5'	Total Depth: 2'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<184	0.0	N	PH01		1	CCHE	0' - 2' : Caliche, moderately consolidated, silty, little sand, tan/light brown, moist
M	896	0.1	N	PH01A		2		2': Color shift to tan/white
						3		TD @ 2' bgs
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
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						21		
						22		
						23		
						24		
						25		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH02	Date: 6/4/2021
Site Name:	Canvasback 13 Fed 3H
RP or Incident Number:	
LTE Job Number:	31402909.06
Logged By WM	Method: Backhoe
Lat/Long: 32.22421, -103.727931	Field Screening: Chloride, PID
Hole Diameter: 1.5'	Total Depth: 6'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<184	46.0	N	PH02		1	CCHE	0' - 0.5' : Caliche, moderately consolidated, silty, little sand, tan/light brown, moist
M	<184	4.4	N			2	SC	0.5' - 4' : Sand fine grain, poorly graded, some clay, red/brown, odor
M	<184	1	N			3		
M	<184	13.1	N			4		4' - 5' : Caliche, moderately consolidated, silty, little sand, tan/light brown, moist
						5	CCHE	
D	<184	0.3	N	PH02A		6	SM	5' - 6' : Sand, large grain, well graded, some silt, little gravel, red/tan
						7		TD @ 6' bgs
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: PH03	Date: 6/4/2021
Site Name:	Canvasback 13 Fed 3H
RP or Incident Number:	
LTE Job Number:	31402909.06
Logged By WM	Method: Backhoe
Lat/Long: 32.224178, -103.727804	Field Screening: Chloride, PID
Hole Diameter: 1.5'	Total Depth: 4.5'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
40% Correction factor included in Chloride concentrations

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	1,601	99.2	N	PH03		1		0' - 1' : Caliche, moderately consolidated, silty, little sand, tan/light brown, moist
D	1,495	33.2	N			2		
D	761	12.1	N			3	CCHE	1' - 4.5' : Caliche, high consolidation, silty, trace sand, tan/white,
D	582	6.6	N					
D	476	5.2	N			4		
D	296	0.4	N	PH03A				
						5		TD @ 4.5' bgs
						6		
						7		
						8		
						9		
						10		
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
						19		
						20		
						21		
						22		
						23		
						24		
						25		

ATTACHMENT 3: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
Concho Operating, LLC.	Canvasback 13 Federal 003H Eddy County, New Mexico	31402909.060

Photo No.	Date
1	May 25, 2021

Initial view of release area.

Photo No.	Date
2	May 25, 2021

Initial view of release area.

PHOTOGRAPHIC LOG		
Concho Operating, LLC.	Canvasback 13 Federal 003H Eddy County, New Mexico	31402909.060

Photo No.	Date
3	May 27, 2021

View of staining on pad during initial Site assessment facing southwest.

Photo No.	Date
4	May 27, 2021

View of staining on pad during initial Site assessment facing south.

PHOTOGRAPHIC LOG		
Concho Operating, LLC.	Canvasback 13 Federal 003H Eddy County, New Mexico	31402909.060

Photo No.	Date
5	June 4, 2021

Delineation activities at PH03 location.

Photo No.	Date
6	June 4, 2021

Delineation activities at PH01 location.

PHOTOGRAPHIC LOG		
Concho Operating, LLC.	Canvasback 13 Federal 003H Eddy County, New Mexico	31402909.060

Photo No.	Date
7	June 22, 2021

View of excavation activities facing northeast.

Photo No.	Date
8	June 23, 2021

View of excavation activities facing southeast.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-739-1
Client Project/Site: Canvasback 13 Fed 3 H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
6/3/2021 9:47:32 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3 H

Laboratory Job ID: 890-739-1

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Job ID: 890-739-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-739-1

Receipt
The samples were received on 5/27/2021 1:37 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 5.4°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SS01 (890-739-1), SS02 (890-739-2) and SS03 (890-739-3).

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: SS02 (890-739-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-3702 and analytical batch 880-3691 recovered outside control limits for the following analytes however both are within passing range: Gasoline Range Organics (GRO)-C6-C10

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Client Sample ID: SS01 Lab Sample ID: 890-739-1

Date Collected: 05/27/21 10:34 **Matrix: Solid**
Date Received: 05/27/21 13:37
Sample Depth: - 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0402	U	0.0402		mg/Kg		06/01/21 16:16	06/03/21 12:27	20
Toluene	**0.144**		0.0402		mg/Kg		06/01/21 16:16	06/03/21 12:27	20
Ethylbenzene	**0.108**		0.0402		mg/Kg		06/01/21 16:16	06/03/21 12:27	20
m-Xylene & p-Xylene	**0.234**		0.0805		mg/Kg		06/01/21 16:16	06/03/21 12:27	20
o-Xylene	**0.126**		0.0402		mg/Kg		06/01/21 16:16	06/03/21 12:27	20
Xylenes, Total	**0.360**		0.0805		mg/Kg		06/01/21 16:16	06/03/21 12:27	20
Total BTEX	**0.612**		0.0805		mg/Kg		06/01/21 16:16	06/03/21 12:27	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*06/01/21 16:16*	*06/03/21 12:27*	*20*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/01/21 16:16*	*06/03/21 12:27*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/01/21 14:04	06/02/21 01:21	1
Diesel Range Organics (Over C10-C28)	**2140**		49.9		mg/Kg		06/01/21 14:04	06/02/21 01:21	1
Oil Range Organics (Over C28-C36)	**278**		49.9		mg/Kg		06/01/21 14:04	06/02/21 01:21	1
Total TPH	**2420**		49.9		mg/Kg		06/01/21 14:04	06/02/21 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*06/01/21 14:04*	*06/02/21 01:21*	*1*
o-Terphenyl	*105*		*70 - 130*	*06/01/21 14:04*	*06/02/21 01:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5490**		50.0		mg/Kg			06/01/21 23:59	10

Client Sample ID: SS02 Lab Sample ID: 890-739-2

Date Collected: 05/27/21 10:38 **Matrix: Solid**
Date Received: 05/27/21 13:37
Sample Depth: - 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00998	U	0.00998		mg/Kg		06/01/21 16:16	06/03/21 14:06	5
Toluene	**0.0201**		0.00998		mg/Kg		06/01/21 16:16	06/03/21 14:06	5
Ethylbenzene	**0.0131**		0.00998		mg/Kg		06/01/21 16:16	06/03/21 14:06	5
m-Xylene & p-Xylene	<0.0798	U	0.0798		mg/Kg		06/01/21 16:16	06/03/21 13:25	20
o-Xylene	**0.259**		0.0399		mg/Kg		06/01/21 16:16	06/03/21 13:25	20
Xylenes, Total	**0.259**		0.0798		mg/Kg		06/01/21 16:16	06/03/21 13:25	20
Total BTEX	**0.259**		0.0798		mg/Kg		06/01/21 16:16	06/03/21 13:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*154*	*S1+*	*70 - 130*	*06/01/21 16:16*	*06/03/21 13:25*	*20*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*06/01/21 16:16*	*06/03/21 14:06*	*5*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/01/21 16:16*	*06/03/21 13:25*	*20*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*06/01/21 16:16*	*06/03/21 14:06*	*5*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Client Sample ID: SS02 Lab Sample ID: 890-739-2

Date Collected: 05/27/21 10:38 **Matrix: Solid**
Date Received: 05/27/21 13:37
Sample Depth: - 0.25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/01/21 14:04	06/02/21 01:42	1
Diesel Range Organics (Over C10-C28)	**1590**		49.9		mg/Kg		06/01/21 14:04	06/02/21 01:42	1
Oil Range Organics (Over C28-C36)	**204**		49.9		mg/Kg		06/01/21 14:04	06/02/21 01:42	1
Total TPH	**1790**		49.9		mg/Kg		06/01/21 14:04	06/02/21 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*06/01/21 14:04*	*06/02/21 01:42*	*1*
o-Terphenyl	*104*		*70 - 130*	*06/01/21 14:04*	*06/02/21 01:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10500**		50.1		mg/Kg			06/02/21 00:04	10

Client Sample ID: SS03 Lab Sample ID: 890-739-3

Date Collected: 05/27/21 10:41 **Matrix: Solid**
Date Received: 05/27/21 13:37
Sample Depth: - 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0400	U	0.0400		mg/Kg		06/01/21 16:16	06/03/21 13:45	20
Toluene	**0.0606**		0.0400		mg/Kg		06/01/21 16:16	06/03/21 13:45	20
Ethylbenzene	**0.422**		0.0400		mg/Kg		06/01/21 16:16	06/03/21 13:45	20
m-Xylene & p-Xylene	**1.43**		0.0800		mg/Kg		06/01/21 16:16	06/03/21 13:45	20
o-Xylene	**0.810**		0.0400		mg/Kg		06/01/21 16:16	06/03/21 13:45	20
Xylenes, Total	**2.24**		0.0800		mg/Kg		06/01/21 16:16	06/03/21 13:45	20
Total BTEX	**2.72**		0.0800		mg/Kg		06/01/21 16:16	06/03/21 13:45	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*06/01/21 16:16*	*06/03/21 13:45*	*20*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*06/01/21 16:16*	*06/03/21 13:45*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		06/01/21 14:04	06/02/21 02:03	5
Diesel Range Organics (Over C10-C28)	**6110**		250		mg/Kg		06/01/21 14:04	06/02/21 02:03	5
Oil Range Organics (Over C28-C36)	**748**		250		mg/Kg		06/01/21 14:04	06/02/21 02:03	5
Total TPH	**6860**		250		mg/Kg		06/01/21 14:04	06/02/21 02:03	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*06/01/21 14:04*	*06/02/21 02:03*	*5*
o-Terphenyl	*117*		*70 - 130*	*06/01/21 14:04*	*06/02/21 02:03*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11400**	**F1**	99.8		mg/Kg			06/02/21 00:09	20

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

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)										
890-739-1	SS01	110	89										
890-739-2	SS02	154 S1+	91										
890-739-2	SS02	123	101										
890-739-3	SS03	125	88										
LCS 880-3706/1-A	Lab Control Sample	106	97										
LCSD 880-3706/2-A	Lab Control Sample Dup	107	92										
MB 880-3706/5-A	Method Blank	112	90										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-739-1	SS01	113	105										
890-739-2	SS02	112	104										
890-739-3	SS03	121	117										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3706/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3751 **Prep Batch: 3706**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/01/21 16:16	06/03/21 11:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/01/21 16:16	06/03/21 11:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/01/21 16:16	06/03/21 11:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/01/21 16:16	06/03/21 11:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/01/21 16:16	06/03/21 11:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/01/21 16:16	06/03/21 11:37	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/01/21 16:16	06/03/21 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/01/21 16:16*	*06/03/21 11:37*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*06/01/21 16:16*	*06/03/21 11:37*	*1*

Lab Sample ID: LCS 880-3706/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3751 **Prep Batch: 3706**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09568		mg/Kg		96	70 - 130		
Toluene			0.100	0.1054		mg/Kg		105	70 - 130		
Ethylbenzene			0.100	0.1087		mg/Kg		109	70 - 130		
m-Xylene & p-Xylene			0.200	0.2206		mg/Kg		110	70 - 130		
o-Xylene			0.100	0.1111		mg/Kg		111	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-3706/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3751 **Prep Batch: 3706**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08897		mg/Kg		89	70 - 130	7	35
Toluene			0.100	0.1082		mg/Kg		108	70 - 130	3	35
Ethylbenzene			0.100	0.1109		mg/Kg		111	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2278		mg/Kg		114	70 - 130	3	35
o-Xylene			0.100	0.1158		mg/Kg		116	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

QC Sample Results

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3679/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3709

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/01/21 22:46	1

Lab Sample ID: LCS 880-3679/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3709

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	246.1		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-3679/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3709

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	246.3		mg/Kg		99	90 - 110	0	20

Lab Sample ID: 890-739-3 MS **Client Sample ID: SS03**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	11400	F1	9980	22480	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 890-739-3 MSD **Client Sample ID: SS03**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	11400	F1	9980	22480	F1	mg/Kg		111	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

GC VOA

Prep Batch: 3706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-739-1	SS01	Total/NA	Solid	5035	
890-739-2	SS02	Total/NA	Solid	5035	
890-739-3	SS03	Total/NA	Solid	5035	
MB 880-3706/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3706/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3706/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-739-1	SS01	Total/NA	Solid	8021B	3706
890-739-2	SS02	Total/NA	Solid	8021B	3706
890-739-2	SS02	Total/NA	Solid	8021B	3706
890-739-3	SS03	Total/NA	Solid	8021B	3706
MB 880-3706/5-A	Method Blank	Total/NA	Solid	8021B	3706
LCS 880-3706/1-A	Lab Control Sample	Total/NA	Solid	8021B	3706
LCSD 880-3706/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3706

GC Semi VOA

Analysis Batch: 3691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-739-1	SS01	Total/NA	Solid	8015B NM	3702
890-739-2	SS02	Total/NA	Solid	8015B NM	3702
890-739-3	SS03	Total/NA	Solid	8015B NM	3702

Prep Batch: 3702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-739-1	SS01	Total/NA	Solid	8015NM Prep	
890-739-2	SS02	Total/NA	Solid	8015NM Prep	
890-739-3	SS03	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 3679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-739-1	SS01	Soluble	Solid	DI Leach	
890-739-2	SS02	Soluble	Solid	DI Leach	
890-739-3	SS03	Soluble	Solid	DI Leach	
MB 880-3679/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3679/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3679/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-739-3 MS	SS03	Soluble	Solid	DI Leach	
890-739-3 MSD	SS03	Soluble	Solid	DI Leach	

Analysis Batch: 3709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-739-1	SS01	Soluble	Solid	300.0	3679
890-739-2	SS02	Soluble	Solid	300.0	3679
890-739-3	SS03	Soluble	Solid	300.0	3679
MB 880-3679/1-A	Method Blank	Soluble	Solid	300.0	3679
LCS 880-3679/2-A	Lab Control Sample	Soluble	Solid	300.0	3679
LCSD 880-3679/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3679

QC Association Summary

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

HPLC/IC (Continued)

Analysis Batch: 3709 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-739-3 MS	SS03	Soluble	Solid	300.0	3679
890-739-3 MSD	SS03	Soluble	Solid	300.0	3679

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Client Sample ID: SS01 Lab Sample ID: 890-739-1

Date Collected: 05/27/21 10:34 **Matrix: Solid**
Date Received: 05/27/21 13:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3706	06/01/21 16:16	MR	XEN MID
Total/NA	Analysis	8021B		20	3751	06/03/21 12:27	MR	XEN MID
Total/NA	Prep	8015NM Prep			3702	06/01/21 14:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3691	06/02/21 01:21	AM	XEN MID
Soluble	Leach	DI Leach			3679	06/01/21 09:04	CH	XEN MID
Soluble	Analysis	300.0		10	3709	06/01/21 23:59	CH	XEN MID

Client Sample ID: SS02 Lab Sample ID: 890-739-2

Date Collected: 05/27/21 10:38 **Matrix: Solid**
Date Received: 05/27/21 13:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3706	06/01/21 16:16	MR	XEN MID
Total/NA	Analysis	8021B		20	3751	06/03/21 13:25	MR	XEN MID
Total/NA	Prep	5035			3706	06/01/21 16:16	MR	XEN MID
Total/NA	Analysis	8021B		5	3751	06/03/21 14:06	MR	XEN MID
Total/NA	Prep	8015NM Prep			3702	06/01/21 14:04	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3691	06/02/21 01:42	AM	XEN MID
Soluble	Leach	DI Leach			3679	06/01/21 09:04	CH	XEN MID
Soluble	Analysis	300.0		10	3709	06/02/21 00:04	CH	XEN MID

Client Sample ID: SS03 Lab Sample ID: 890-739-3

Date Collected: 05/27/21 10:41 **Matrix: Solid**
Date Received: 05/27/21 13:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3706	06/01/21 16:16	MR	XEN MID
Total/NA	Analysis	8021B		20	3751	06/03/21 13:45	MR	XEN MID
Total/NA	Prep	8015NM Prep			3702	06/01/21 14:04	DM	XEN MID
Total/NA	Analysis	8015B NM		5	3691	06/02/21 02:03	AM	XEN MID
Soluble	Leach	DI Leach			3679	06/01/21 09:04	CH	XEN MID
Soluble	Analysis	300.0		20	3709	06/02/21 00:09	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-739-1
Project/Site: Canvasback 13 Fed 3 H

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (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.

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3 H

Job ID: 890-739-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-739-1	SS01	Solid	05/27/21 10:34	05/27/21 13:37	- 0.25
890-739-2	SS02	Solid	05/27/21 10:38	05/27/21 13:37	- 0.25
890-739-3	SS03	Solid	05/27/21 10:41	05/27/21 13:37	- 0.25

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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6/3/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc., Permian office	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, kalei.jennings@wsp.com, itavarez@concho.com	

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:		Routine	✓
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	5.6 / 5.4	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

890-739 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300.0)
SS01	s	5/27/2021	10:34	0.25'	1	x	x	x
SS02	s	5/27/2021	10:38	0.25'	1	x	x	x
SS03	s	5/27/2021	10:41	0.25'	1	x	x	x

Work Order Notes

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

Sample Comments

SS01: Discrete
SS02: Discrete
SS03: Discrete

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		5/27/21 1:37	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-243 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-739-1
Address: 1211 W Florida Ave	Due Date Requested: 6/3/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Canvasback 13 Fed 3 H	Project #: 88000207			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

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, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Z other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8015NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX - LL	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
SS01 (890-739-1)	5/27/21	10 34 Mountain		Solid			X	X	X	1	
SS02 (890-739-2)	5/27/21	10 38 Mountain		Solid			X	X	X	1	
SS03 (890-739-3)	5/27/21	10 41 Mountain		Solid			X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Cave Cliff 5.27.21					
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-739-1
SDG Number:

Login Number: 739
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-739-1
SDG Number:

Login Number: 739
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/01/21 11:47 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-778-1
Laboratory Sample Delivery Group: 31402909.06
Client Project/Site: Canvasback 13 Fed 3H

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

Attn: Dan Moir

JKramer

Authorized for release by:
6/9/2021 8:33:08 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Laboratory Job ID: 890-778-1
SDG: 31402909.06

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Job ID: 890-778-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-778-1

Receipt
The samples were received on 6/4/2021 1:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH03 — Lab Sample ID: 890-778-1

Date Collected: 06/04/21 09:45 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:46	06/07/21 21:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:46	06/07/21 21:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:46	06/07/21 21:10	1
m-Xylene & p-Xylene	**0.00682**		0.00399		mg/Kg		06/07/21 08:46	06/07/21 21:10	1
o-Xylene	**0.00231**		0.00200		mg/Kg		06/07/21 08:46	06/07/21 21:10	1
Xylenes, Total	**0.00913**		0.00399		mg/Kg		06/07/21 08:46	06/07/21 21:10	1
Total BTEX	**0.00913**		0.00399		mg/Kg		06/07/21 08:46	06/07/21 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*06/07/21 08:46*	*06/07/21 21:10*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*06/07/21 08:46*	*06/07/21 21:10*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 14:21	1
Diesel Range Organics (Over C10-C28)	**695**		49.8		mg/Kg		06/07/21 09:23	06/07/21 14:21	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 14:21	1
Total TPH	**695**		49.8		mg/Kg		06/07/21 09:23	06/07/21 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*06/07/21 09:23*	*06/07/21 14:21*	*1*
o-Terphenyl	*71*		*70 - 130*	*06/07/21 09:23*	*06/07/21 14:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2770**		24.8		mg/Kg			06/08/21 21:21	5

Client Sample ID: PH03A — Lab Sample ID: 890-778-2

Date Collected: 06/04/21 11:02 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/07/21 08:46	06/07/21 21:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/07/21 08:46	06/07/21 21:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/07/21 08:46	06/07/21 21:30	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		06/07/21 08:46	06/07/21 21:30	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/07/21 08:46	06/07/21 21:30	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		06/07/21 08:46	06/07/21 21:30	1
Total BTEX	<0.00404	U	0.00404		mg/Kg		06/07/21 08:46	06/07/21 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*06/07/21 08:46*	*06/07/21 21:30*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*06/07/21 08:46*	*06/07/21 21:30*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH03A **Lab Sample ID: 890-778-2**
Date Collected: 06/04/21 11:02 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 4.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 14:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 14:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 14:42	1
Total TPH	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/07/21 09:23*	*06/07/21 14:42*	*1*
o-Terphenyl	*71*		*70 - 130*	*06/07/21 09:23*	*06/07/21 14:42*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	223		4.99		mg/Kg			06/08/21 21:26	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-778-1
SDG: 31402909.06

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)
890-778-1	PH03	129	108
890-778-2	PH03A	137 S1+	105
LCS 880-3824/1-A	Lab Control Sample	111	104
LCSD 880-3824/2-A	Lab Control Sample Dup	108	106
MB 880-3824/5-A	Method Blank	85	94

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-778-1	PH03	85	71
890-778-2	PH03A	84	71
LCS 880-3830/2-A	Lab Control Sample	93	72
LCSD 880-3830/3-A	Lab Control Sample Dup	94	74
MB 880-3830/1-A	Method Blank	89	74

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-778-1
SDG: 31402909.06

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3824/5-A
Matrix: Solid
Analysis Batch: 3827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3824

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:46	06/07/21 13:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:46	06/07/21 13:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:46	06/07/21 13:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/07/21 08:46	06/07/21 13:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:46	06/07/21 13:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/07/21 08:46	06/07/21 13:40	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/07/21 08:46	06/07/21 13:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*06/07/21 08:46*	*06/07/21 13:40*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/07/21 08:46*	*06/07/21 13:40*	*1*

Lab Sample ID: LCS 880-3824/1-A
Matrix: Solid
Analysis Batch: 3827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3824

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09205		mg/Kg		92	70 - 130		
Toluene			0.100	0.08939		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.09381		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene			0.200	0.2005		mg/Kg		100	70 - 130		
o-Xylene			0.100	0.1015		mg/Kg		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-3824/2-A
Matrix: Solid
Analysis Batch: 3827

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3824

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09518		mg/Kg		95	70 - 130	3	35
Toluene			0.100	0.09151		mg/Kg		92	70 - 130	2	35
Ethylbenzene			0.100	0.09731		mg/Kg		97	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.2073		mg/Kg		104	70 - 130	3	35
o-Xylene			0.100	0.1049		mg/Kg		105	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-778-1
SDG: 31402909.06

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

Lab Sample ID: MB 880-3830/1-A
Matrix: Solid
Analysis Batch: 3835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3830

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
Total TPH	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*06/07/21 09:23*	*06/07/21 12:16*	*1*
o-Terphenyl	*74*		*70 - 130*	*06/07/21 09:23*	*06/07/21 12:16*	*1*

Lab Sample ID: LCS 880-3830/2-A
Matrix: Solid
Analysis Batch: 3835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3830

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	793.2		mg/Kg		79	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	840.4		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*72*		*70 - 130*

Lab Sample ID: LCSD 880-3830/3-A
Matrix: Solid
Analysis Batch: 3835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3830

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	792.7		mg/Kg		79	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	859.9		mg/Kg		86	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3838/1-A
Matrix: Solid
Analysis Batch: 3904

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/08/21 20:43	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-3838/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	251.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-3838/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	254.5		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC VOA

Prep Batch: 3824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-778-1	PH03	Total/NA	Solid	5035	
890-778-2	PH03A	Total/NA	Solid	5035	
MB 880-3824/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3824/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3824/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-778-1	PH03	Total/NA	Solid	8021B	3824
890-778-2	PH03A	Total/NA	Solid	8021B	3824
MB 880-3824/5-A	Method Blank	Total/NA	Solid	8021B	3824
LCS 880-3824/1-A	Lab Control Sample	Total/NA	Solid	8021B	3824
LCSD 880-3824/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3824

GC Semi VOA

Prep Batch: 3830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-778-1	PH03	Total/NA	Solid	8015NM Prep	
890-778-2	PH03A	Total/NA	Solid	8015NM Prep	
MB 880-3830/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3830/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3830/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-778-1	PH03	Total/NA	Solid	8015B NM	3830
890-778-2	PH03A	Total/NA	Solid	8015B NM	3830
MB 880-3830/1-A	Method Blank	Total/NA	Solid	8015B NM	3830
LCS 880-3830/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3830
LCSD 880-3830/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3830

HPLC/IC

Leach Batch: 3838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-778-1	PH03	Soluble	Solid	DI Leach	
890-778-2	PH03A	Soluble	Solid	DI Leach	
MB 880-3838/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3838/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3838/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-778-1	PH03	Soluble	Solid	300.0	3838
890-778-2	PH03A	Soluble	Solid	300.0	3838
MB 880-3838/1-A	Method Blank	Soluble	Solid	300.0	3838
LCS 880-3838/2-A	Lab Control Sample	Soluble	Solid	300.0	3838
LCSD 880-3838/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3838

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH03 Lab Sample ID: 890-778-1

Date Collected: 06/04/21 09:45 **Matrix: Solid**
Date Received: 06/04/21 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3824	06/07/21 08:46	KL	XEN MID
Total/NA	Analysis	8021B		1	3827	06/07/21 21:10	KL	XEN MID
Total/NA	Prep	8015NM Prep			3830	06/07/21 09:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3835	06/07/21 14:21	AJ	XEN MID
Soluble	Leach	DI Leach			3838	06/07/21 10:18	CH	XEN MID
Soluble	Analysis	300.0		5	3904	06/08/21 21:21	CH	XEN MID

Client Sample ID: PH03A Lab Sample ID: 890-778-2

Date Collected: 06/04/21 11:02 **Matrix: Solid**
Date Received: 06/04/21 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3824	06/07/21 08:46	KL	XEN MID
Total/NA	Analysis	8021B		1	3827	06/07/21 21:30	KL	XEN MID
Total/NA	Prep	8015NM Prep			3830	06/07/21 09:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3835	06/07/21 14:42	AJ	XEN MID
Soluble	Leach	DI Leach			3838	06/07/21 10:18	CH	XEN MID
Soluble	Analysis	300.0		1	3904	06/08/21 21:26	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-778-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (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.

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-778-1
SDG: 31402909.06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-778-1	PH03	Solid	06/04/21 09:45	06/04/21 13:35	- 1
890-778-2	PH03A	Solid	06/04/21 11:02	06/04/21 13:35	- 4.5

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc., Permian office	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	will.mather@wsp.com, kalei.jennings@wsp.com, itavarez@concho.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:	31402909.06	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	5.0/4.8	Thermometer ID		
Received Intact:	Yes No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
PH03	s	6/4/2021	9:45	1'	1	x	x	x	Discrete
PH03A	s	6/4/2021	11:02	4.5'	1	x	x	x	Discrete

890-778 Chain of Custody

Work Order Notes

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

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

Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/4/21 13:35	2		
3			4		
5			6		

Revised Date 051418 Rev 2018.1

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

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-252 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-778-1
Address: 1211 W Florida Ave	Due Date Requested: 6/10/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Canvasback 13 Fed 3H	Project #: 89000004			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note
Preservation Code:											
PH03 (890-778-1)	6/4/21	09 45 Mountain		Solid			X	X	X	1	
PH03A (890-778-2)	6/4/21	11 02 Mountain		Solid			X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Cue Cuyo 6-4-21	Date/Time:	Company	Received by:	Date/Time: 6-4-21 @ 300 pm	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-778-1
SDG Number: 31402909.06

Login Number: 778
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-778-1
SDG Number: 31402909.06

Login Number: 778
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/07/21 08:49 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-779-1
Laboratory Sample Delivery Group: 31402909.06
Client Project/Site: Canvasback 13 Fed 3H

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

Attn: Dan Moir

JKramer

Authorized for release by:
6/9/2021 8:34:23 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Laboratory Job ID: 890-779-1
SDG: 31402909.06

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-779-1
SDG: 31402909.06

Job ID: 890-779-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-779-1

Receipt
The samples were received on 6/4/2021 1:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH02 (890-779-1) and PH02A (890-779-2).

GC VOA
Method 8021B: Internal standard responses were outside of acceptance limits for the following sample: PH02A (890-779-2). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following sample was outside control limits: PH02A (890-779-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH02 Lab Sample ID: 890-779-1

Date Collected: 06/04/21 09:12 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/07/21 08:42	06/07/21 13:14	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/07/21 08:42	06/07/21 13:14	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/07/21 08:42	06/07/21 13:14	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/07/21 08:42	06/07/21 13:14	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/07/21 08:42	06/07/21 13:14	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/07/21 08:42	06/07/21 13:14	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/07/21 08:42	06/07/21 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*06/07/21 08:42*	*06/07/21 13:14*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/07/21 08:42*	*06/07/21 13:14*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:03	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:03	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:03	1
Total TPH	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*06/07/21 09:23*	*06/07/21 15:03*	*1*
o-Terphenyl	*71*		*70 - 130*	*06/07/21 09:23*	*06/07/21 15:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.3**		4.99		mg/Kg			06/08/21 21:32	1

Client Sample ID: PH02A Lab Sample ID: 890-779-2

Date Collected: 06/04/21 09:33 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:35	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:35	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:35	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/07/21 08:42	06/07/21 13:35	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:35	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/07/21 08:42	06/07/21 13:35	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/07/21 08:42	06/07/21 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*06/07/21 08:42*	*06/07/21 13:35*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*06/07/21 08:42*	*06/07/21 13:35*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH02A **Lab Sample ID: 890-779-2**
Date Collected: 06/04/21 09:33 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 6

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/07/21 09:23	06/07/21 15:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/07/21 09:23	06/07/21 15:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/07/21 09:23	06/07/21 15:24	1
Total TPH	<49.9	U	49.9		mg/Kg		06/07/21 09:23	06/07/21 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*06/07/21 09:23*	*06/07/21 15:24*	*1*
o-Terphenyl	*70*		*70 - 130*	*06/07/21 09:23*	*06/07/21 15:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**14.5**		5.02		mg/Kg			06/08/21 21:48	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-779-1
SDG: 31402909.06

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)
890-779-1	PH02	113	97
890-779-2	PH02A	134 S1+	94
LCS 880-3823/1-A	Lab Control Sample	108	95
LCS 880-3849/1-A	Lab Control Sample	106	97
LCSD 880-3823/2-A	Lab Control Sample Dup	107	94
LCSD 880-3849/2-A	Lab Control Sample Dup	105	97
MB 880-3823/5-A	Method Blank	109	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-779-1	PH02	85	71
890-779-2	PH02A	83	70
LCS 880-3830/2-A	Lab Control Sample	93	72
LCSD 880-3830/3-A	Lab Control Sample Dup	94	74
MB 880-3830/1-A	Method Blank	89	74

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-779-1
SDG: 31402909.06

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3823/5-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3823

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/07/21 08:42	06/07/21 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*06/07/21 08:42*	*06/07/21 12:25*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/07/21 08:42*	*06/07/21 12:25*	*1*

Lab Sample ID: LCS 880-3823/1-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3823

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07985		mg/Kg		80	70 - 130		
Toluene			0.100	0.09903		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.1032		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene			0.200	0.2134		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1065		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-3823/2-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3823

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08619		mg/Kg		86	70 - 130	8	35
Toluene			0.100	0.1035		mg/Kg		104	70 - 130	4	35
Ethylbenzene			0.100	0.1091		mg/Kg		109	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2254		mg/Kg		113	70 - 130	5	35
o-Xylene			0.100	0.1132		mg/Kg		113	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCS 880-3849/1-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3849

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08550		mg/Kg		86	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

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

Lab Sample ID: LCS 880-3849/1-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3829 **Prep Batch: 3849**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toluene			0.100	0.09552		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09967		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.2043		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1050		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-3849/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3829 **Prep Batch: 3849**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08437		mg/Kg		84	70 - 130	1	35
Toluene			0.100	0.09781		mg/Kg		98	70 - 130	2	35
Ethylbenzene			0.100	0.1024		mg/Kg		102	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2101		mg/Kg		105	70 - 130	3	35
o-Xylene			0.100	0.1070		mg/Kg		107	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-3830/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3835 **Prep Batch: 3830**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
Total TPH	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*06/07/21 09:23*	*06/07/21 12:16*	*1*
o-Terphenyl	*74*		*70 - 130*	*06/07/21 09:23*	*06/07/21 12:16*	*1*

Lab Sample ID: LCS 880-3830/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3835 **Prep Batch: 3830**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	793.2		mg/Kg		79	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

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

Lab Sample ID: LCS 880-3830/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3835 **Prep Batch: 3830**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	840.4		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*72*		*70 - 130*

Lab Sample ID: LCSD 880-3830/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3835 **Prep Batch: 3830**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	792.7		mg/Kg		79	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	859.9		mg/Kg		86	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3838/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/08/21 20:43	1

Lab Sample ID: LCS 880-3838/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	251.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-3838/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	254.5		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC VOA

Prep Batch: 3823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-779-1	PH02	Total/NA	Solid	5035	
890-779-2	PH02A	Total/NA	Solid	5035	
MB 880-3823/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3823/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3823/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-779-1	PH02	Total/NA	Solid	8021B	3823
890-779-2	PH02A	Total/NA	Solid	8021B	3823
MB 880-3823/5-A	Method Blank	Total/NA	Solid	8021B	3823
LCS 880-3823/1-A	Lab Control Sample	Total/NA	Solid	8021B	3823
LCS 880-3849/1-A	Lab Control Sample	Total/NA	Solid	8021B	3849
LCSD 880-3823/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3823
LCSD 880-3849/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3849

Prep Batch: 3849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-3849/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3849/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 3830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-779-1	PH02	Total/NA	Solid	8015NM Prep	
890-779-2	PH02A	Total/NA	Solid	8015NM Prep	
MB 880-3830/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3830/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3830/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-779-1	PH02	Total/NA	Solid	8015B NM	3830
890-779-2	PH02A	Total/NA	Solid	8015B NM	3830
MB 880-3830/1-A	Method Blank	Total/NA	Solid	8015B NM	3830
LCS 880-3830/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3830
LCSD 880-3830/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3830

HPLC/IC

Leach Batch: 3838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-779-1	PH02	Soluble	Solid	DI Leach	
890-779-2	PH02A	Soluble	Solid	DI Leach	
MB 880-3838/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3838/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3838/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-779-1	PH02	Soluble	Solid	300.0	3838

QC Association Summary

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

HPLC/IC (Continued)

Analysis Batch: 3904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-779-2	PH02A	Soluble	Solid	300.0	3838
MB 880-3838/1-A	Method Blank	Soluble	Solid	300.0	3838
LCS 880-3838/2-A	Lab Control Sample	Soluble	Solid	300.0	3838
LCSD 880-3838/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3838

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH02 Lab Sample ID: 890-779-1

Date Collected: 06/04/21 09:12 **Matrix: Solid**
Date Received: 06/04/21 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3823	06/07/21 08:42	MR	XEN MID
Total/NA	Analysis	8021B		1	3829	06/07/21 13:14	MR	XEN MID
Total/NA	Prep	8015NM Prep			3830	06/07/21 09:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3835	06/07/21 15:03	AJ	XEN MID
Soluble	Leach	DI Leach			3838	06/07/21 10:18	CH	XEN MID
Soluble	Analysis	300.0		1	3904	06/08/21 21:32	CH	XEN MID

Client Sample ID: PH02A Lab Sample ID: 890-779-2

Date Collected: 06/04/21 09:33 **Matrix: Solid**
Date Received: 06/04/21 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3823	06/07/21 08:42	MR	XEN MID
Total/NA	Analysis	8021B		1	3829	06/07/21 13:35	MR	XEN MID
Total/NA	Prep	8015NM Prep			3830	06/07/21 09:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3835	06/07/21 15:24	AJ	XEN MID
Soluble	Leach	DI Leach			3838	06/07/21 10:18	CH	XEN MID
Soluble	Analysis	300.0		1	3904	06/08/21 21:48	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-779-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (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.

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-779-1
SDG: 31402909.06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-779-1	PH02	Solid	06/04/21 09:12	06/04/21 13:35	- 1
890-779-2	PH02A	Solid	06/04/21 09:33	06/04/21 13:35	- 6

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc., Permian office	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	will.mather@wsp.com, kalei.jennings@wsp.com, itavarez@concho.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:	31402909.06	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	5.0/4.8	Thermometer ID		
Received Intact:	Yes No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
PH02	s	6/4/2021	9:12	1'	1	x	x	x	Discrete
PH02A	s	6/4/2021	9:33	6'	1	x	x	x	Discrete

ANALYSIS REQUEST

890-779 Chain of Custody

Work Order Notes

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

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

~~Circle Method(s) and Metal(s) to be analyzed~~ TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ : Hg

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/4/21 13:3	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-252 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana NELAP - Texas		Job #: 890-779-1
Address: 1211 W Florida Ave	Due Date Requested: 6/10/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #			
Email	WO #:			
Project Name: Canvasback 13 Fed 3H	Project #: 89000004			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8016NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
PH02 (890-779-1)	6/4/21	09 12 Mountain		Solid			X	X	X	4	
PH02A (890-779-2)	6/4/21	09 33 Mountain		Solid			X	X	X	4	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time:	Company	Received by	Date/Time	Company
1	Cloe Cuta 6.4.21				6-4-21 3:00 PM	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		

Ver 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-779-1
SDG Number: 31402909.06

Login Number: 779
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-779-1
SDG Number: 31402909.06

Login Number: 779
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/07/21 08:49 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-780-1
Laboratory Sample Delivery Group: 31402909.06
Client Project/Site: Canvasback 13 Fed 3H

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

Attn: Dan Moir

JKramer

Authorized for release by:
6/9/2021 8:36:02 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Laboratory Job ID: 890-780-1
SDG: 31402909.06

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-780-1
SDG: 31402909.06

Job ID: 890-780-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-780-1

Receipt
The samples were received on 6/4/2021 1:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: PH01 (890-780-1) and PH01A (890-780-2).

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

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH01 Lab Sample ID: 890-780-1

Date Collected: 06/04/21 08:57 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:55	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:55	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/07/21 08:42	06/07/21 13:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 13:55	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/07/21 08:42	06/07/21 13:55	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/07/21 08:42	06/07/21 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*06/07/21 08:42*	*06/07/21 13:55*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/07/21 08:42*	*06/07/21 13:55*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:45	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:45	1
Total TPH	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*06/07/21 09:23*	*06/07/21 15:45*	*1*
o-Terphenyl	*71*		*70 - 130*	*06/07/21 09:23*	*06/07/21 15:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1120**		5.05		mg/Kg			06/08/21 21:54	1

Client Sample ID: PH01A Lab Sample ID: 890-780-2

Date Collected: 06/04/21 09:02 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 14:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 14:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 14:15	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/07/21 08:42	06/07/21 14:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 14:15	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/07/21 08:42	06/07/21 14:15	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/07/21 08:42	06/07/21 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*06/07/21 08:42*	*06/07/21 14:15*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*06/07/21 08:42*	*06/07/21 14:15*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH01A **Lab Sample ID: 890-780-2**
Date Collected: 06/04/21 09:02 **Matrix: Solid**
Date Received: 06/04/21 13:35
Sample Depth: - 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 16:05	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 16:05	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 16:05	1
Total TPH	<49.8	U	49.8		mg/Kg		06/07/21 09:23	06/07/21 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*06/07/21 09:23*	*06/07/21 16:05*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*06/07/21 09:23*	*06/07/21 16:05*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**88.3**		5.04		mg/Kg			06/08/21 21:59	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-780-1
SDG: 31402909.06

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-780-1	PH01	116	102
890-780-2	PH01A	116	102
LCS 880-3823/1-A	Lab Control Sample	108	95
LCS 880-3849/1-A	Lab Control Sample	106	97
LCSD 880-3823/2-A	Lab Control Sample Dup	107	94
LCSD 880-3849/2-A	Lab Control Sample Dup	105	97
MB 880-3823/5-A	Method Blank	109	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-780-1	PH01	86	71
890-780-2	PH01A	82	68 S1-
LCS 880-3830/2-A	Lab Control Sample	93	72
LCSD 880-3830/3-A	Lab Control Sample Dup	94	74
MB 880-3830/1-A	Method Blank	89	74

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-780-1
SDG: 31402909.06

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-3823/5-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3823

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/07/21 08:42	06/07/21 12:25	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/07/21 08:42	06/07/21 12:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*06/07/21 08:42*	*06/07/21 12:25*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/07/21 08:42*	*06/07/21 12:25*	*1*

Lab Sample ID: LCS 880-3823/1-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3823

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07985		mg/Kg		80	70 - 130		
Toluene			0.100	0.09903		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.1032		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene			0.200	0.2134		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1065		mg/Kg		107	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-3823/2-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3823

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08619		mg/Kg		86	70 - 130	8	35
Toluene			0.100	0.1035		mg/Kg		104	70 - 130	4	35
Ethylbenzene			0.100	0.1091		mg/Kg		109	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2254		mg/Kg		113	70 - 130	5	35
o-Xylene			0.100	0.1132		mg/Kg		113	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCS 880-3849/1-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3849

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08550		mg/Kg		86	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-780-1
SDG: 31402909.06

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

Lab Sample ID: LCS 880-3849/1-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3849

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toluene			0.100	0.09552		mg/Kg		96	70 - 130		
Ethylbenzene			0.100	0.09967		mg/Kg		100	70 - 130		
m-Xylene & p-Xylene			0.200	0.2043		mg/Kg		102	70 - 130		
o-Xylene			0.100	0.1050		mg/Kg		105	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-3849/2-A
Matrix: Solid
Analysis Batch: 3829

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3849

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08437		mg/Kg		84	70 - 130	1	35
Toluene			0.100	0.09781		mg/Kg		98	70 - 130	2	35
Ethylbenzene			0.100	0.1024		mg/Kg		102	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2101		mg/Kg		105	70 - 130	3	35
o-Xylene			0.100	0.1070		mg/Kg		107	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

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

Lab Sample ID: MB 880-3830/1-A
Matrix: Solid
Analysis Batch: 3835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3830

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1
Total TPH	<50.0	U	50.0		mg/Kg		06/07/21 09:23	06/07/21 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*06/07/21 09:23*	*06/07/21 12:16*	*1*
o-Terphenyl	*74*		*70 - 130*	*06/07/21 09:23*	*06/07/21 12:16*	*1*

Lab Sample ID: LCS 880-3830/2-A
Matrix: Solid
Analysis Batch: 3835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3830

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	793.2		mg/Kg		79	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

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

Lab Sample ID: LCS 880-3830/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3835 **Prep Batch: 3830**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (Over C10-C28)			1000	840.4		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*72*		*70 - 130*

Lab Sample ID: LCSD 880-3830/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 3835 **Prep Batch: 3830**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	792.7		mg/Kg		79	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	859.9		mg/Kg		86	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*74*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-3838/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/08/21 20:43	1

Lab Sample ID: LCS 880-3838/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	251.2		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-3838/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 3904

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	254.5		mg/Kg		102	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC VOA

Prep Batch: 3823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-780-1	PH01	Total/NA	Solid	5035	
890-780-2	PH01A	Total/NA	Solid	5035	
MB 880-3823/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-3823/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3823/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 3829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-780-1	PH01	Total/NA	Solid	8021B	3823
890-780-2	PH01A	Total/NA	Solid	8021B	3823
MB 880-3823/5-A	Method Blank	Total/NA	Solid	8021B	3823
LCS 880-3823/1-A	Lab Control Sample	Total/NA	Solid	8021B	3823
LCS 880-3849/1-A	Lab Control Sample	Total/NA	Solid	8021B	3849
LCSD 880-3823/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3823
LCSD 880-3849/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	3849

Prep Batch: 3849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-3849/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-3849/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 3830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-780-1	PH01	Total/NA	Solid	8015NM Prep	
890-780-2	PH01A	Total/NA	Solid	8015NM Prep	
MB 880-3830/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-3830/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-3830/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 3835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-780-1	PH01	Total/NA	Solid	8015B NM	3830
890-780-2	PH01A	Total/NA	Solid	8015B NM	3830
MB 880-3830/1-A	Method Blank	Total/NA	Solid	8015B NM	3830
LCS 880-3830/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	3830
LCSD 880-3830/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	3830

HPLC/IC

Leach Batch: 3838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-780-1	PH01	Soluble	Solid	DI Leach	
890-780-2	PH01A	Soluble	Solid	DI Leach	
MB 880-3838/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-3838/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-3838/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 3904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-780-1	PH01	Soluble	Solid	300.0	3838

QC Association Summary

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

HPLC/IC (Continued)

Analysis Batch: 3904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-780-2	PH01A	Soluble	Solid	300.0	3838
MB 880-3838/1-A	Method Blank	Soluble	Solid	300.0	3838
LCS 880-3838/2-A	Lab Control Sample	Soluble	Solid	300.0	3838
LCSD 880-3838/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	3838

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: PH01 Lab Sample ID: 890-780-1

Date Collected: 06/04/21 08:57 **Matrix: Solid**
Date Received: 06/04/21 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3823	06/07/21 08:42	MR	XEN MID
Total/NA	Analysis	8021B		1	3829	06/07/21 13:55	MR	XEN MID
Total/NA	Prep	8015NM Prep			3830	06/07/21 09:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3835	06/07/21 15:45	AJ	XEN MID
Soluble	Leach	DI Leach			3838	06/07/21 10:18	CH	XEN MID
Soluble	Analysis	300.0		1	3904	06/08/21 21:54	CH	XEN MID

Client Sample ID: PH01A Lab Sample ID: 890-780-2

Date Collected: 06/04/21 09:02 **Matrix: Solid**
Date Received: 06/04/21 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3823	06/07/21 08:42	MR	XEN MID
Total/NA	Analysis	8021B		1	3829	06/07/21 14:15	MR	XEN MID
Total/NA	Prep	8015NM Prep			3830	06/07/21 09:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1	3835	06/07/21 16:05	AJ	XEN MID
Soluble	Leach	DI Leach			3838	06/07/21 10:18	CH	XEN MID
Soluble	Analysis	300.0		1	3904	06/08/21 21:59	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-780-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (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.

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-780-1
SDG: 31402909.06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-780-1	PH01	Solid	06/04/21 08:57	06/04/21 13:35	- 1
890-780-2	PH01A	Solid	06/04/21 09:02	06/04/21 13:35	- 2

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc., Permian office	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	will.mather@wsp.com, kalei.jennings@wsp.com, itavarez@concho.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:	31402909.06	Routine	☐
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	5.0 / 4.8	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
PH01	s	6/4/2021	8:57	1'	1	x	x	x
PH01A	s	6/4/2021	9:02	2'	1	x	x	x

ANALYSIS REQUEST

890-780 Chain of Custody

Work Order Notes

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

Sample Comments

Discrete
Discrete

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6/4/21 13:3	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-780-1
SDG Number: 31402909.06

Login Number: 780
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-780-1
SDG Number: 31402909.06

Login Number: 780
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/07/21 08:50 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-861-1
Laboratory Sample Delivery Group: 31402909.06
Client Project/Site: Canvasback 13 Fed 3H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
6/30/2021 2:59:03 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Laboratory Job ID: 890-861-1
SDG: 31402909.06

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-861-1
SDG: 31402909.06

Job ID: 890-861-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-861-1

Receipt
The samples were received on 6/23/2021 10:15 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 5.6°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS01 (890-861-1), FS03 (890-861-2), FS04 (890-861-3), FS05 (890-861-4), FS06 (890-861-5), FS07 (890-861-6), FS08 (890-861-7) and DNU (890-861-8).

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

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

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

Client Sample Results

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS01 Lab Sample ID: 890-861-1

Date Collected: 06/22/21 13:19 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/29/21 18:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/29/21 18:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/29/21 18:38	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/29/21 14:37	06/29/21 18:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/29/21 18:38	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/29/21 14:37	06/29/21 18:38	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/29/21 14:37	06/29/21 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*06/29/21 14:37*	*06/29/21 18:38*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/29/21 14:37*	*06/29/21 18:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:14	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*06/28/21 14:59*	*06/29/21 19:14*	*1*
o-Terphenyl	*98*		*70 - 130*	*06/28/21 14:59*	*06/29/21 19:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**144**		5.00		mg/Kg			06/30/21 07:25	1

Client Sample ID: FS03 Lab Sample ID: 890-861-2

Date Collected: 06/22/21 14:07 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:04	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:04	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/29/21 19:04	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:04	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/29/21 19:04	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/29/21 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*	*06/29/21 14:37*	*06/29/21 19:04*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*06/29/21 14:37*	*06/29/21 19:04*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS03 Lab Sample ID: 890-861-2

Date Collected: 06/22/21 14:07 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/28/21 14:59	06/29/21 19:35	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/28/21 14:59	06/29/21 19:35	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/28/21 14:59	06/29/21 19:35	1
Total TPH	<49.8	U	49.8		mg/Kg		06/28/21 14:59	06/29/21 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*06/28/21 14:59*	*06/29/21 19:35*	*1*
o-Terphenyl	*99*		*70 - 130*	*06/28/21 14:59*	*06/29/21 19:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**135**		5.00		mg/Kg			06/30/21 07:29	1

Client Sample ID: FS04 Lab Sample ID: 890-861-3

Date Collected: 06/22/21 14:09 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:30	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/29/21 19:30	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/29/21 19:30	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/29/21 19:30	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/29/21 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*06/29/21 14:37*	*06/29/21 19:30*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*06/29/21 14:37*	*06/29/21 19:30*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:56	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*06/28/21 14:59*	*06/29/21 19:56*	*1*
o-Terphenyl	*106*		*70 - 130*	*06/28/21 14:59*	*06/29/21 19:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.5**		4.98		mg/Kg			06/30/21 07:34	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS05 Lab Sample ID: 890-861-4

Date Collected: 06/22/21 14:39 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/30/21 00:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/30/21 00:12	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/30/21 00:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*06/29/21 14:37*	*06/30/21 00:12*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*06/29/21 14:37*	*06/30/21 00:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/28/21 14:59	06/29/21 20:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/28/21 14:59	06/29/21 20:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/28/21 14:59	06/29/21 20:17	1
Total TPH	<49.9	U	49.9		mg/Kg		06/28/21 14:59	06/29/21 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*06/28/21 14:59*	*06/29/21 20:17*	*1*
o-Terphenyl	*102*		*70 - 130*	*06/28/21 14:59*	*06/29/21 20:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.4**		5.05		mg/Kg			06/30/21 07:39	1

Client Sample ID: FS06 Lab Sample ID: 890-861-5

Date Collected: 06/22/21 14:40 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/30/21 00:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/29/21 14:37	06/30/21 00:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/30/21 00:38	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/29/21 14:37	06/30/21 00:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*175*	*S1+*	*70 - 130*	*06/29/21 14:37*	*06/30/21 00:38*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*06/29/21 14:37*	*06/30/21 00:38*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS06 Lab Sample ID: 890-861-5

Date Collected: 06/22/21 14:40 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:14	1
Total TPH	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*06/29/21 09:38*	*06/29/21 19:14*	*1*
o-Terphenyl	*114*		*70 - 130*	*06/29/21 09:38*	*06/29/21 19:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**183**		4.97		mg/Kg			06/30/21 07:44	1

Client Sample ID: FS07 Lab Sample ID: 890-861-6

Date Collected: 06/22/21 14:43 **Matrix: Solid**
Date Received: 06/23/21 10:15
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:03	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/29/21 14:37	06/30/21 01:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:03	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/29/21 14:37	06/30/21 01:03	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/29/21 14:37	06/30/21 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*06/29/21 14:37*	*06/30/21 01:03*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/29/21 14:37*	*06/30/21 01:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/29/21 09:38	06/29/21 19:35	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/29/21 09:38	06/29/21 19:35	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/29/21 09:38	06/29/21 19:35	1
Total TPH	<49.8	U	49.8		mg/Kg		06/29/21 09:38	06/29/21 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*06/29/21 09:38*	*06/29/21 19:35*	*1*
o-Terphenyl	*114*		*70 - 130*	*06/29/21 09:38*	*06/29/21 19:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.8**		5.02		mg/Kg			06/30/21 07:48	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-861-1
SDG: 31402909.06

Client Sample ID: FS08

Date Collected: 06/22/21 14:44
Date Received: 06/23/21 10:15
Sample Depth: - 1

Lab Sample ID: 890-861-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/29/21 14:37	06/30/21 01:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/29/21 14:37	06/30/21 01:28	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/29/21 14:37	06/30/21 01:28	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/29/21 14:37	06/30/21 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*06/29/21 14:37*	*06/30/21 01:28*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*06/29/21 14:37*	*06/30/21 01:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:56	1
Total TPH	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*06/29/21 09:38*	*06/29/21 19:56*	*1*
o-Terphenyl	*84*		*70 - 130*	*06/29/21 09:38*	*06/29/21 19:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**290**		5.00		mg/Kg			06/30/21 07:53	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

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)										
890-861-1	FS01	97	95										
890-861-2	FS03	81	84										
890-861-3	FS04	92	88										
890-861-4	FS05	98	98										
890-861-5	FS06	175 S1+	86										
890-861-6	FS07	97	97										
890-861-7	FS08	85	84										
LCS 880-4724/1-A	Lab Control Sample	87	97										
LCSD 880-4724/2-A	Lab Control Sample Dup	94	102										
MB 880-4724/5-A	Method Blank	60 S1-	82										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-861-1	FS01	92	98										
890-861-2	FS03	90	99										
890-861-3	FS04	98	106										
890-861-4	FS05	95	102										
890-861-5	FS06	106	114										
890-861-6	FS07	107	114										
890-861-7	FS08	81	84										
LCS 880-4709/2-A	Lab Control Sample	100	97										
LCS 880-4722/2-A	Lab Control Sample	97	98										
LCSD 880-4709/3-A	Lab Control Sample Dup	100	96										
LCSD 880-4722/3-A	Lab Control Sample Dup	112	107										
MB 880-4709/1-A	Method Blank	93	100										
MB 880-4722/1-A	Method Blank	90	101										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-861-1
SDG: 31402909.06

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4724/5-A
Matrix: Solid
Analysis Batch: 4740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4724

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/29/21 10:28	06/29/21 16:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/29/21 10:28	06/29/21 16:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/29/21 10:28	06/29/21 16:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/29/21 10:28	06/29/21 16:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/29/21 10:28	06/29/21 16:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/29/21 10:28	06/29/21 16:33	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/29/21 10:28	06/29/21 16:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*60*	*S1-*	*70 - 130*	*06/29/21 10:28*	*06/29/21 16:33*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*06/29/21 10:28*	*06/29/21 16:33*	*1*

Lab Sample ID: LCS 880-4724/1-A
Matrix: Solid
Analysis Batch: 4740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4724

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08480		mg/Kg		85	70 - 130		
Toluene			0.100	0.08425		mg/Kg		84	70 - 130		
Ethylbenzene			0.100	0.08202		mg/Kg		82	70 - 130		
m-Xylene & p-Xylene			0.200	0.1733		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08872		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-4724/2-A
Matrix: Solid
Analysis Batch: 4740

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4724

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09235		mg/Kg		92	70 - 130	9	35
Toluene			0.100	0.1077		mg/Kg		108	70 - 130	24	35
Ethylbenzene			0.100	0.09178		mg/Kg		92	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.1939		mg/Kg		97	70 - 130	11	35
o-Xylene			0.100	0.09922		mg/Kg		99	70 - 130	11	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-861-1
SDG: 31402909.06

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

Lab Sample ID: MB 880-4709/1-A
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4709

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1
Total TPH	<50.0	U	50.0		mg/Kg		06/28/21 14:59	06/29/21 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*06/28/21 14:59*	*06/29/21 12:16*	*1*
o-Terphenyl	*100*		*70 - 130*	*06/28/21 14:59*	*06/29/21 12:16*	*1*

Lab Sample ID: LCS 880-4709/2-A
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4709

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	949.3		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	933.8		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

Lab Sample ID: LCSD 880-4709/3-A
Matrix: Solid
Analysis Batch: 4725

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4709

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	935.9		mg/Kg		94	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	919.2		mg/Kg		92	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*100*		*70 - 130*
o-Terphenyl	*96*		*70 - 130*

Lab Sample ID: MB 880-4722/1-A
Matrix: Solid
Analysis Batch: 4728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4722

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 12:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 12:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 12:16	1
Total TPH	<50.0	U	50.0		mg/Kg		06/29/21 09:38	06/29/21 12:16	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	06/29/21 09:38	06/29/21 12:16	1
o-Terphenyl	101		70 - 130	06/29/21 09:38	06/29/21 12:16	1

Lab Sample ID: LCS 880-4722/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 4728 — **Prep Batch: 4722**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	902.5		mg/Kg		90	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	955.9		mg/Kg		96	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: LCSD 880-4722/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 4728 — **Prep Batch: 4722**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1032		mg/Kg		103	70 - 130	13	20
Diesel Range Organics (Over C10-C28)			1000	1062		mg/Kg		106	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	107		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4679/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 4735

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/30/21 05:32	1

Lab Sample ID: LCS 880-4679/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 4735

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	239.6		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-4679/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 4735

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	239.9		mg/Kg		96	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC VOA

Prep Batch: 4724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-1	FS01	Total/NA	Solid	5035	
890-861-2	FS03	Total/NA	Solid	5035	
890-861-3	FS04	Total/NA	Solid	5035	
890-861-4	FS05	Total/NA	Solid	5035	
890-861-5	FS06	Total/NA	Solid	5035	
890-861-6	FS07	Total/NA	Solid	5035	
890-861-7	FS08	Total/NA	Solid	5035	
MB 880-4724/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4724/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4724/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 4740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-1	FS01	Total/NA	Solid	8021B	4724
890-861-2	FS03	Total/NA	Solid	8021B	4724
890-861-3	FS04	Total/NA	Solid	8021B	4724
890-861-4	FS05	Total/NA	Solid	8021B	4724
890-861-5	FS06	Total/NA	Solid	8021B	4724
890-861-6	FS07	Total/NA	Solid	8021B	4724
890-861-7	FS08	Total/NA	Solid	8021B	4724
MB 880-4724/5-A	Method Blank	Total/NA	Solid	8021B	4724
LCS 880-4724/1-A	Lab Control Sample	Total/NA	Solid	8021B	4724
LCSD 880-4724/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4724

GC Semi VOA

Prep Batch: 4709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-1	FS01	Total/NA	Solid	8015NM Prep	
890-861-2	FS03	Total/NA	Solid	8015NM Prep	
890-861-3	FS04	Total/NA	Solid	8015NM Prep	
890-861-4	FS05	Total/NA	Solid	8015NM Prep	
MB 880-4709/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4709/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 4722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-5	FS06	Total/NA	Solid	8015NM Prep	
890-861-6	FS07	Total/NA	Solid	8015NM Prep	
890-861-7	FS08	Total/NA	Solid	8015NM Prep	
MB 880-4722/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4722/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4722/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 4725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-1	FS01	Total/NA	Solid	8015B NM	4709
890-861-2	FS03	Total/NA	Solid	8015B NM	4709
890-861-3	FS04	Total/NA	Solid	8015B NM	4709
890-861-4	FS05	Total/NA	Solid	8015B NM	4709

QC Association Summary

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC Semi VOA (Continued)

Analysis Batch: 4725 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-4709/1-A	Method Blank	Total/NA	Solid	8015B NM	4709
LCS 880-4709/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4709
LCSD 880-4709/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4709

Analysis Batch: 4728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-5	FS06	Total/NA	Solid	8015B NM	4722
890-861-6	FS07	Total/NA	Solid	8015B NM	4722
890-861-7	FS08	Total/NA	Solid	8015B NM	4722
MB 880-4722/1-A	Method Blank	Total/NA	Solid	8015B NM	4722
LCS 880-4722/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4722
LCSD 880-4722/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4722

HPLC/IC

Leach Batch: 4679

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-1	FS01	Soluble	Solid	DI Leach	
890-861-2	FS03	Soluble	Solid	DI Leach	
890-861-3	FS04	Soluble	Solid	DI Leach	
890-861-4	FS05	Soluble	Solid	DI Leach	
890-861-5	FS06	Soluble	Solid	DI Leach	
890-861-6	FS07	Soluble	Solid	DI Leach	
890-861-7	FS08	Soluble	Solid	DI Leach	
MB 880-4679/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4679/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4679/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 4735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-861-1	FS01	Soluble	Solid	300.0	4679
890-861-2	FS03	Soluble	Solid	300.0	4679
890-861-3	FS04	Soluble	Solid	300.0	4679
890-861-4	FS05	Soluble	Solid	300.0	4679
890-861-5	FS06	Soluble	Solid	300.0	4679
890-861-6	FS07	Soluble	Solid	300.0	4679
890-861-7	FS08	Soluble	Solid	300.0	4679
MB 880-4679/1-A	Method Blank	Soluble	Solid	300.0	4679
LCS 880-4679/2-A	Lab Control Sample	Soluble	Solid	300.0	4679
LCSD 880-4679/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4679

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS01 Lab Sample ID: 890-861-1

Date Collected: 06/22/21 13:19 **Matrix: Solid**
Date Received: 06/23/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4724	06/29/21 14:37	MR	XEN MID
Total/NA	Analysis	8021B		1	4740	06/29/21 18:38	KL	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/28/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 19:14	AM	XEN MID
Soluble	Leach	DI Leach			4679	06/28/21 10:30	CH	XEN MID
Soluble	Analysis	300.0		1	4735	06/30/21 07:25	CH	XEN MID

Client Sample ID: FS03 Lab Sample ID: 890-861-2

Date Collected: 06/22/21 14:07 **Matrix: Solid**
Date Received: 06/23/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4724	06/29/21 14:37	MR	XEN MID
Total/NA	Analysis	8021B		1	4740	06/29/21 19:04	KL	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/28/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 19:35	AM	XEN MID
Soluble	Leach	DI Leach			4679	06/28/21 10:30	CH	XEN MID
Soluble	Analysis	300.0		1	4735	06/30/21 07:29	CH	XEN MID

Client Sample ID: FS04 Lab Sample ID: 890-861-3

Date Collected: 06/22/21 14:09 **Matrix: Solid**
Date Received: 06/23/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4724	06/29/21 14:37	MR	XEN MID
Total/NA	Analysis	8021B		1	4740	06/29/21 19:30	KL	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/28/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 19:56	AM	XEN MID
Soluble	Leach	DI Leach			4679	06/28/21 10:30	CH	XEN MID
Soluble	Analysis	300.0		1	4735	06/30/21 07:34	CH	XEN MID

Client Sample ID: FS05 Lab Sample ID: 890-861-4

Date Collected: 06/22/21 14:39 **Matrix: Solid**
Date Received: 06/23/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4724	06/29/21 14:37	MR	XEN MID
Total/NA	Analysis	8021B		1	4740	06/30/21 00:12	KL	XEN MID
Total/NA	Prep	8015NM Prep			4709	06/28/21 14:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4725	06/29/21 20:17	AM	XEN MID
Soluble	Leach	DI Leach			4679	06/28/21 10:30	CH	XEN MID
Soluble	Analysis	300.0		1	4735	06/30/21 07:39	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS06 Lab Sample ID: 890-861-5

Date Collected: 06/22/21 14:40 **Matrix: Solid**
Date Received: 06/23/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4724	06/29/21 14:37	MR	XEN MID
Total/NA	Analysis	8021B		1	4740	06/30/21 00:38	KL	XEN MID
Total/NA	Prep	8015NM Prep			4722	06/29/21 09:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4728	06/29/21 19:14	AM	XEN MID
Soluble	Leach	DI Leach			4679	06/28/21 10:30	CH	XEN MID
Soluble	Analysis	300.0		1	4735	06/30/21 07:44	CH	XEN MID

Client Sample ID: FS07 Lab Sample ID: 890-861-6

Date Collected: 06/22/21 14:43 **Matrix: Solid**
Date Received: 06/23/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4724	06/29/21 14:37	MR	XEN MID
Total/NA	Analysis	8021B		1	4740	06/30/21 01:03	KL	XEN MID
Total/NA	Prep	8015NM Prep			4722	06/29/21 09:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4728	06/29/21 19:35	AM	XEN MID
Soluble	Leach	DI Leach			4679	06/28/21 10:30	CH	XEN MID
Soluble	Analysis	300.0		1	4735	06/30/21 07:48	CH	XEN MID

Client Sample ID: FS08 Lab Sample ID: 890-861-7

Date Collected: 06/22/21 14:44 **Matrix: Solid**
Date Received: 06/23/21 10:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4724	06/29/21 14:37	MR	XEN MID
Total/NA	Analysis	8021B		1	4740	06/30/21 01:28	KL	XEN MID
Total/NA	Prep	8015NM Prep			4722	06/29/21 09:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4728	06/29/21 19:56	AM	XEN MID
Soluble	Leach	DI Leach			4679	06/28/21 10:30	CH	XEN MID
Soluble	Analysis	300.0		1	4735	06/30/21 07:53	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-861-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (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.

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-861-1
SDG: 31402909.06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-861-1	FS01	Solid	06/22/21 13:19	06/23/21 10:15	1 - 2
890-861-2	FS03	Solid	06/22/21 14:07	06/23/21 10:15	- 1
890-861-3	FS04	Solid	06/22/21 14:09	06/23/21 10:15	- 1
890-861-4	FS05	Solid	06/22/21 14:39	06/23/21 10:15	- 2
890-861-5	FS06	Solid	06/22/21 14:40	06/23/21 10:15	- 2
890-861-6	FS07	Solid	06/22/21 14:43	06/23/21 10:15	- 2
890-861-7	FS08	Solid	06/22/21 14:44	06/23/21 10:15	- 1

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc., Permian office	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, kalei.jennings@wsp.com, itavarez@concho.com	

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:	31402909.06	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	5.8/5.6	Thermometer ID		
Received Intact:	Yes No	TNM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS01	s	6/22/2021	13:19	1-2'	1	x	x	x
FS03	s	6/22/2021	14:07	1'	1	x	x	x
FS04	s	6/22/2021	14:09	1'	1	x	x	x
FS05	s	6/22/2021	14:39	2'	1	x	x	x
FS06	s	6/22/2021	14:40	2'	1	x	x	x
FS07	s	6/22/2021	14:43	2'	1	x	x	x
FS08	s	6/22/2021	14:44	1'	1	x	x	x

ANALYSIS REQUEST

890-861 Chain of Custody

Work Order Notes

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

Sample Comments

Sample Comments
Composite
Composite
Composite
Composite
Composite
Composite
Composite

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ Hg

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			6/23/21 1005	2		6.23.21 1015
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-861-1
SDG Number: 31402909.06

Login Number: 861
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-863-1
Laboratory Sample Delivery Group: 31402909.06
Client Project/Site: Canvasback 13 Fed 3H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
6/30/2021 10:54:28 AM

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

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

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

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Laboratory Job ID: 890-863-1
SDG: 31402909.06

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

Job ID: 890-863-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-863-1

Receipt
The samples were received on 6/23/2021 1:54 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 8.2°C

Receipt Exceptions
The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: FS02 (890-863-1), FS09 (890-863-2), FS10 (890-863-3), FS11 (890-863-4), FS12 (890-863-5), FS13 (890-863-6), FS14 (890-863-7), FS15 (890-863-8), FS16 (890-863-9), FS17 (890-863-10), FS18 (890-863-11), FS19 (890-863-12), SW01 (890-863-13), SW02 (890-863-14) and SW03 (890-863-15).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-4593 and analytical batch 880-4608 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Internal standard responses were outside of acceptance limits for the following samples: FS09 (890-863-2), FS14 (890-863-7), FS16 (890-863-9), FS17 (890-863-10) and SW02 (890-863-14). The sample(s) shows evidence of matrix interference.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS02 (890-863-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Internal standard responses were outside of acceptance limits for the following sample: FS02 (890-863-1). The sample(s) shows evidence of matrix interference.

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

Client Sample ID: FS02

Lab Sample ID: 890-863-1
Matrix: Solid
Date Collected: 06/23/21 09:11
Date Received: 06/23/21 13:54
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/28/21 11:30	06/28/21 21:49	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/28/21 11:30	06/28/21 21:49	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/28/21 11:30	06/28/21 21:49	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		06/28/21 11:30	06/28/21 21:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/28/21 11:30	06/28/21 21:49	1
Xylenes, Total	**0.0503**	**F1**	0.00403		mg/Kg		06/24/21 13:24	06/26/21 02:06	1
Total BTEX	**0.127**	**F1**	0.00403		mg/Kg		06/24/21 13:24	06/26/21 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*06/28/21 11:30*	*06/28/21 21:49*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/28/21 11:30*	*06/28/21 21:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 13:44	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 13:44	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 13:44	1
Total TPH	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 13:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*06/25/21 09:52*	*06/25/21 13:44*	*1*
o-Terphenyl	*82*		*70 - 130*	*06/25/21 09:52*	*06/25/21 13:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.4**		4.97		mg/Kg			06/29/21 10:49	1

Client Sample ID: FS09

Lab Sample ID: 890-863-2
Matrix: Solid
Date Collected: 06/23/21 09:24
Date Received: 06/23/21 13:54
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 02:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 02:32	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 02:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*06/24/21 13:24*	*06/26/21 02:32*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*06/24/21 13:24*	*06/26/21 02:32*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS09 Lab Sample ID: 890-863-2

Date Collected: 06/23/21 09:24 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 16:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 16:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 16:08	1
Total TPH	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:08*	*1*
o-Terphenyl	*86*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**265**		4.99		mg/Kg			06/29/21 10:54	1

Client Sample ID: FS10 Lab Sample ID: 890-863-3

Date Collected: 06/23/21 09:23 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/24/21 13:24	06/26/21 02:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 02:57	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/21 13:24	06/26/21 02:57	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/24/21 13:24	06/26/21 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*06/24/21 13:24*	*06/26/21 02:57*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*06/24/21 13:24*	*06/26/21 02:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 16:21	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 16:21	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 16:21	1
Total TPH	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 16:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:21*	*1*
o-Terphenyl	*97*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**164**		5.01		mg/Kg			06/29/21 11:11	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS11 Lab Sample ID: 890-863-4

Date Collected: 06/23/21 10:28 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		06/24/21 13:24	06/26/21 03:23	1
Toluene	<0.00198	U	0.00198		mg/Kg		06/24/21 13:24	06/26/21 03:23	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		06/24/21 13:24	06/26/21 03:23	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		06/24/21 13:24	06/26/21 03:23	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		06/24/21 13:24	06/26/21 03:23	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		06/24/21 13:24	06/26/21 03:23	1
Total BTEX	<0.00396	U	0.00396		mg/Kg		06/24/21 13:24	06/26/21 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/24/21 13:24*	*06/26/21 03:23*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*06/24/21 13:24*	*06/26/21 03:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:36	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:36	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:36	1
Total TPH	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:36*	*1*
o-Terphenyl	*91*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**465**		5.03		mg/Kg			06/29/21 11:16	1

Client Sample ID: FS12 Lab Sample ID: 890-863-5

Date Collected: 06/23/21 11:32 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 03:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 03:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 03:48	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/24/21 13:24	06/26/21 03:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 03:48	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/24/21 13:24	06/26/21 03:48	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/24/21 13:24	06/26/21 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/24/21 13:24*	*06/26/21 03:48*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*06/24/21 13:24*	*06/26/21 03:48*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS12 Lab Sample ID: 890-863-5

Date Collected: 06/23/21 11:32 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:49	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:49	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:49	1
Total TPH	<49.8	U	49.8		mg/Kg		06/25/21 09:52	06/25/21 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:49*	*1*
o-Terphenyl	*82*		*70 - 130*	*06/25/21 09:52*	*06/25/21 16:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**189**		5.03		mg/Kg			06/29/21 11:22	1

Client Sample ID: FS13 Lab Sample ID: 890-863-6

Date Collected: 06/23/21 09:33 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 04:14	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 04:14	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 04:14	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 04:14	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 04:14	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 04:14	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 04:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/24/21 13:24*	*06/26/21 04:14*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/24/21 13:24*	*06/26/21 04:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 17:03	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 17:03	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 17:03	1
Total TPH	<49.7	U	49.7		mg/Kg		06/25/21 09:52	06/25/21 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:03*	*1*
o-Terphenyl	*87*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**478**		5.04		mg/Kg			06/29/21 11:27	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS14 Lab Sample ID: 890-863-7

Date Collected: 06/23/21 10:34 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 04:39	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 04:39	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 04:39	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/24/21 13:24	06/26/21 04:39	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 04:39	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/21 13:24	06/26/21 04:39	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/24/21 13:24	06/26/21 04:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*06/24/21 13:24*	*06/26/21 04:39*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/24/21 13:24*	*06/26/21 04:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 17:17	1
Diesel Range Organics (Over C10-C28)	**58.6**		50.0		mg/Kg		06/25/21 09:52	06/25/21 17:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 17:17	1
Total TPH	**58.6**		50.0		mg/Kg		06/25/21 09:52	06/25/21 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:17*	*1*
o-Terphenyl	*119*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**726**		5.00		mg/Kg			06/29/21 11:33	1

Client Sample ID: FS15 Lab Sample ID: 890-863-8

Date Collected: 06/23/21 10:32 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: 2 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		06/24/21 13:24	06/26/21 05:05	1
Toluene	<0.00202	U	0.00202		mg/Kg		06/24/21 13:24	06/26/21 05:05	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		06/24/21 13:24	06/26/21 05:05	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		06/24/21 13:24	06/26/21 05:05	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		06/24/21 13:24	06/26/21 05:05	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		06/24/21 13:24	06/26/21 05:05	1
Total BTEX	<0.00403	U	0.00403		mg/Kg		06/24/21 13:24	06/26/21 05:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/24/21 13:24*	*06/26/21 05:05*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*06/24/21 13:24*	*06/26/21 05:05*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS15 Lab Sample ID: 890-863-8

Date Collected: 06/23/21 10:32 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: 2 - 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 17:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 17:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 17:30	1
Total TPH	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:30*	*1*
o-Terphenyl	*95*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.1**		5.01		mg/Kg			06/29/21 11:38	1

Client Sample ID: FS16 Lab Sample ID: 890-863-9

Date Collected: 06/23/21 10:30 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 05:30	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 05:30	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 05:30	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/24/21 13:24	06/26/21 05:30	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 05:30	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/24/21 13:24	06/26/21 05:30	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		06/24/21 13:24	06/26/21 05:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*71*		*70 - 130*	*06/24/21 13:24*	*06/26/21 05:30*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*06/24/21 13:24*	*06/26/21 05:30*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 20:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 20:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 20:13	1
Total TPH	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*06/24/21 16:40*	*06/25/21 20:13*	*1*
o-Terphenyl	*99*		*70 - 130*	*06/24/21 16:40*	*06/25/21 20:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.7**		5.00		mg/Kg			06/29/21 11:44	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS17 Lab Sample ID: 890-863-10

Date Collected: 06/23/21 10:58 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 05:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 05:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 05:56	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 05:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 05:56	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 05:56	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 05:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*06/24/21 13:24*	*06/26/21 05:56*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*06/24/21 13:24*	*06/26/21 05:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/21 16:40	06/25/21 20:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/24/21 16:40	06/25/21 20:34	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/21 16:40	06/25/21 20:34	1
Total TPH	<49.9	U	49.9		mg/Kg		06/24/21 16:40	06/25/21 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*06/24/21 16:40*	*06/25/21 20:34*	*1*
o-Terphenyl	*94*		*70 - 130*	*06/24/21 16:40*	*06/25/21 20:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**107**		4.96		mg/Kg			06/29/21 05:36	1

Client Sample ID: FS18 Lab Sample ID: 890-863-11

Date Collected: 06/23/21 10:56 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 07:40	1
Toluene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 07:40	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 07:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		06/24/21 13:24	06/26/21 07:40	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		06/24/21 13:24	06/26/21 07:40	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		06/24/21 13:24	06/26/21 07:40	1
Total BTEX	<0.00398	U	0.00398		mg/Kg		06/24/21 13:24	06/26/21 07:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*06/24/21 13:24*	*06/26/21 07:40*	*1*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*	*06/24/21 13:24*	*06/26/21 07:40*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS18 Lab Sample ID: 890-863-11

Date Collected: 06/23/21 10:56 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 17:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 17:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 17:44	1
Total TPH	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:44*	*1*
o-Terphenyl	*106*		*70 - 130*	*06/25/21 09:52*	*06/25/21 17:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**224**		4.95		mg/Kg			06/29/21 05:49	1

Client Sample ID: FS19 Lab Sample ID: 890-863-12

Date Collected: 06/23/21 10:55 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:06	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/24/21 13:24	06/26/21 08:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:06	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/24/21 13:24	06/26/21 08:06	1
Total BTEX	<0.00401	U	0.00401		mg/Kg		06/24/21 13:24	06/26/21 08:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*06/24/21 13:24*	*06/26/21 08:06*	*1*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*	*06/24/21 13:24*	*06/26/21 08:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 18:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 18:08	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 18:08	1
Total TPH	<49.9	U	49.9		mg/Kg		06/25/21 09:52	06/25/21 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*06/25/21 09:52*	*06/25/21 18:08*	*1*
o-Terphenyl	*97*		*70 - 130*	*06/25/21 09:52*	*06/25/21 18:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**208**		4.98		mg/Kg			06/29/21 05:53	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

Client Sample ID: SW01

Lab Sample ID: 890-863-13
Matrix: Solid
Date Collected: 06/23/21 09:13
Date Received: 06/23/21 13:54
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 08:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 08:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 08:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		06/24/21 13:24	06/26/21 08:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		06/24/21 13:24	06/26/21 08:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		06/24/21 13:24	06/26/21 08:32	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		06/24/21 13:24	06/26/21 08:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*	*06/24/21 13:24*	*06/26/21 08:32*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*06/24/21 13:24*	*06/26/21 08:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:08	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:08	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:08	1
Total TPH	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*06/24/21 10:16*	*06/24/21 20:08*	*1*
o-Terphenyl	*83*		*70 - 130*	*06/24/21 10:16*	*06/24/21 20:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**326**		5.05		mg/Kg			06/29/21 05:58	1

Client Sample ID: SW02

Lab Sample ID: 890-863-14
Matrix: Solid
Date Collected: 06/23/21 09:25
Date Received: 06/23/21 13:54
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:58	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 08:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 08:58	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 08:58	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*06/24/21 13:24*	*06/26/21 08:58*	*1*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*06/24/21 13:24*	*06/26/21 08:58*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: SW02 Lab Sample ID: 890-863-14

Date Collected: 06/23/21 09:25 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: 0 - 2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:29	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:29	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:29	1
Total TPH	<49.9	U	49.9		mg/Kg		06/24/21 10:16	06/24/21 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*06/24/21 10:16*	*06/24/21 20:29*	*1*
o-Terphenyl	*80*		*70 - 130*	*06/24/21 10:16*	*06/24/21 20:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.2**		5.04		mg/Kg			06/29/21 06:02	1

Client Sample ID: SW03 Lab Sample ID: 890-863-15

Date Collected: 06/23/21 11:01 **Matrix: Solid**
Date Received: 06/23/21 13:54
Sample Depth: 0 - 3

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 09:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 09:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 09:24	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 09:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 09:24	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 09:24	1
Total BTEX	<0.00399	U	0.00399		mg/Kg		06/24/21 13:24	06/26/21 09:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*06/24/21 13:24*	*06/26/21 09:24*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*06/24/21 13:24*	*06/26/21 09:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		06/24/21 10:16	06/24/21 20:50	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		06/24/21 10:16	06/24/21 20:50	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		06/24/21 10:16	06/24/21 20:50	1
Total TPH	<49.8	U	49.8		mg/Kg		06/24/21 10:16	06/24/21 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*06/24/21 10:16*	*06/24/21 20:50*	*1*
o-Terphenyl	*81*		*70 - 130*	*06/24/21 10:16*	*06/24/21 20:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**352**		5.04		mg/Kg			06/29/21 06:16	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-863-1	FS02	132 S1+	91
890-863-1 MS	FS02	83	99
890-863-1 MSD	FS02	84	102
890-863-2	FS09	79	84
890-863-3	FS10	92	96
890-863-4	FS11	93	98
890-863-5	FS12	91	95
890-863-6	FS13	93	97
890-863-7	FS14	86	93
890-863-8	FS15	93	97
890-863-9	FS16	71	85
890-863-10	FS17	84	86
890-863-11	FS18	85	77
890-863-12	FS19	80	91
890-863-13	SW01	84	93
890-863-14	SW02	69 S1-	75
890-863-15	SW03	91	96
LCS 880-4593/1-A	Lab Control Sample	87	98
LCS 880-4688/1-A	Lab Control Sample	99	94
LCSD 880-4593/2-A	Lab Control Sample Dup	83	102
LCSD 880-4688/2-A	Lab Control Sample Dup	98	93
MB 880-4592/5-A	Method Blank	60 S1-	80
MB 880-4593/5-A	Method Blank	58 S1-	83
MB 880-4688/5-A	Method Blank	111	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-863-1	FS02	75	82
890-863-1 MS	FS02	88	99
890-863-1 MSD	FS02	92	102
890-863-2	FS09	86	86
890-863-3	FS10	97	97
890-863-4	FS11	95	91
890-863-5	FS12	90	82
890-863-6	FS13	89	87
890-863-7	FS14	105	119
890-863-8	FS15	92	95
890-863-9	FS16	94	99
890-863-10	FS17	88	94
890-863-11	FS18	95	106
890-863-12	FS19	100	97
890-863-13	SW01	86	83

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-863-14	SW02	84	80										
890-863-15	SW03	85	81										
LCS 880-4566/2-A	Lab Control Sample	109	106										
LCS 880-4602/2-A	Lab Control Sample	96	100										
LCS 880-4619/2-A	Lab Control Sample	103	115										
LCSD 880-4566/3-A	Lab Control Sample Dup	108	103										
LCSD 880-4602/3-A	Lab Control Sample Dup	99	104										
LCSD 880-4619/3-A	Lab Control Sample Dup	106	115										
MB 880-4566/1-A	Method Blank	102	107										
MB 880-4602/1-A	Method Blank	98	109										
MB 880-4619/1-A	Method Blank	94	108										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4592/5-A
Matrix: Solid
Analysis Batch: 4608

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:20	06/25/21 12:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:20	06/25/21 12:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:20	06/25/21 12:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/24/21 13:20	06/25/21 12:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:20	06/25/21 12:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/21 13:20	06/25/21 12:41	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/24/21 13:20	06/25/21 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*60*	*S1-*	*70 - 130*	*06/24/21 13:20*	*06/25/21 12:41*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*06/24/21 13:20*	*06/25/21 12:41*	*1*

Lab Sample ID: MB 880-4593/5-A
Matrix: Solid
Analysis Batch: 4608

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4593

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 01:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 01:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 01:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/24/21 13:24	06/26/21 01:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/24/21 13:24	06/26/21 01:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/24/21 13:24	06/26/21 01:41	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/24/21 13:24	06/26/21 01:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*58*	*S1-*	*70 - 130*	*06/24/21 13:24*	*06/26/21 01:41*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*06/24/21 13:24*	*06/26/21 01:41*	*1*

Lab Sample ID: LCS 880-4593/1-A
Matrix: Solid
Analysis Batch: 4608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4593

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09203		mg/Kg		92	70 - 130
Toluene	0.100	0.1039		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.08325		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	0.200	0.1749		mg/Kg		87	70 - 130
o-Xylene	0.100	0.09010		mg/Kg		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

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

Lab Sample ID: LCSD 880-4593/2-A
Matrix: Solid
Analysis Batch: 4608

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4593

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09020		mg/Kg		90	70 - 130	2	35
Toluene			0.100	0.08319		mg/Kg		83	70 - 130	22	35
Ethylbenzene			0.100	0.07789		mg/Kg		78	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1630		mg/Kg		82	70 - 130	7	35
o-Xylene			0.100	0.08453		mg/Kg		85	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 890-863-1 MS
Matrix: Solid
Analysis Batch: 4608

Client Sample ID: FS02
Prep Type: Total/NA
Prep Batch: 4593

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	0.0356	F1	0.100	0.07310	F1	mg/Kg		37	70 - 130		
Toluene	0.0205	F1	0.100	0.06066	F1	mg/Kg		40	70 - 130		
Ethylbenzene	0.0203	F1	0.100	0.03447	F1	mg/Kg		14	70 - 130		
m-Xylene & p-Xylene	0.0337	F1	0.200	0.05504	F1	mg/Kg		11	70 - 130		
o-Xylene	0.0166	F1	0.100	0.07202	F1	mg/Kg		55	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-863-1 MSD
Matrix: Solid
Analysis Batch: 4608

Client Sample ID: FS02
Prep Type: Total/NA
Prep Batch: 4593

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0356	F1	0.0998	0.06527	F1	mg/Kg		30	70 - 130	11	35
Toluene	0.0205	F1	0.0998	0.05379	F1	mg/Kg		33	70 - 130	12	35
Ethylbenzene	0.0203	F1	0.0998	0.02851	F1	mg/Kg		8	70 - 130	19	35
m-Xylene & p-Xylene	0.0337	F1	0.200	0.05010	F1	mg/Kg		8	70 - 130	9	35
o-Xylene	0.0166	F1	0.0998	0.06598	F1	mg/Kg		49	70 - 130	9	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: MB 880-4688/5-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4688

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

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

Lab Sample ID: MB 880-4688/5-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4688

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		06/28/21 11:30	06/28/21 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*06/28/21 11:30*	*06/28/21 14:45*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*06/28/21 11:30*	*06/28/21 14:45*	*1*

Lab Sample ID: LCS 880-4688/1-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4688

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09272		mg/Kg		93	70 - 130
Toluene	0.100	0.1075		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1133		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.2345		mg/Kg		117	70 - 130
o-Xylene	0.100	0.1139		mg/Kg		114	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 880-4688/2-A
Matrix: Solid
Analysis Batch: 4689

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4688

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09137		mg/Kg		91	70 - 130	1	35
Toluene	0.100	0.1077		mg/Kg		108	70 - 130	0	35
Ethylbenzene	0.100	0.1124		mg/Kg		112	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.2327		mg/Kg		116	70 - 130	1	35
o-Xylene	0.100	0.1131		mg/Kg		113	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

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

Lab Sample ID: MB 880-4566/1-A
Matrix: Solid
Analysis Batch: 4568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/21 10:16	06/24/21 12:07	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

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

Lab Sample ID: MB 880-4566/1-A
Matrix: Solid
Analysis Batch: 4568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4566

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/21 10:16	06/24/21 12:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/21 10:16	06/24/21 12:07	1
Total TPH	<50.0	U	50.0		mg/Kg		06/24/21 10:16	06/24/21 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*06/24/21 10:16*	*06/24/21 12:07*	*1*
o-Terphenyl	*107*		*70 - 130*	*06/24/21 10:16*	*06/24/21 12:07*	*1*

Lab Sample ID: LCS 880-4566/2-A
Matrix: Solid
Analysis Batch: 4568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4566

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1019		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	980.2		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*109*		*70 - 130*
o-Terphenyl	*106*		*70 - 130*

Lab Sample ID: LCSD 880-4566/3-A
Matrix: Solid
Analysis Batch: 4568

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4566

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	969.6		mg/Kg		97	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	963.7		mg/Kg		96	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: MB 880-4602/1-A
Matrix: Solid
Analysis Batch: 4609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4602

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 11:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 11:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 11:38	1
Total TPH	<50.0	U	50.0		mg/Kg		06/24/21 16:40	06/25/21 11:38	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

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

Lab Sample ID: MB 880-4602/1-A
Matrix: Solid
Analysis Batch: 4609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4602

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	06/24/21 16:40	06/25/21 11:38	1
o-Terphenyl	109		70 - 130	06/24/21 16:40	06/25/21 11:38	1

Lab Sample ID: LCS 880-4602/2-A
Matrix: Solid
Analysis Batch: 4609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4602

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	894.5		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1034		mg/Kg		103	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: LCSD 880-4602/3-A
Matrix: Solid
Analysis Batch: 4609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4602

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	997.5		mg/Kg		100	70 - 130	11	20
Diesel Range Organics (Over C10-C28)			1000	1055		mg/Kg		105	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: MB 880-4619/1-A
Matrix: Solid
Analysis Batch: 4617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 14:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 14:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 14:44	1
Total TPH	<50.0	U	50.0		mg/Kg		06/25/21 09:52	06/25/21 14:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	06/25/21 09:52	06/25/21 14:44	1
o-Terphenyl	108		70 - 130	06/25/21 09:52	06/25/21 14:44	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

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

Lab Sample ID: LCS 880-4619/2-A
Matrix: Solid
Analysis Batch: 4617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4619

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1096		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	926.5		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: LCSD 880-4619/3-A
Matrix: Solid
Analysis Batch: 4617

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 4619

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1107		mg/Kg		111	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	931.7		mg/Kg		93	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: 890-863-1 MS
Matrix: Solid
Analysis Batch: 4617

Client Sample ID: FS02
Prep Type: Total/NA
Prep Batch: 4619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	999	1043		mg/Kg		104	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.7	U	999	873.4		mg/Kg		87	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*99*		*70 - 130*

Lab Sample ID: 890-863-1 MSD
Matrix: Solid
Analysis Batch: 4617

Client Sample ID: FS02
Prep Type: Total/NA
Prep Batch: 4619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	997	996.8		mg/Kg		100	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.7	U	997	928.2		mg/Kg		93	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

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

Lab Sample ID: 890-863-1 MSD
Matrix: Solid
Analysis Batch: 4617

Client Sample ID: FS02
Prep Type: Total/NA
Prep Batch: 4619

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	102		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4584/1-A
Matrix: Solid
Analysis Batch: 4716

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/29/21 08:59	1

Lab Sample ID: LCS 880-4584/2-A
Matrix: Solid
Analysis Batch: 4716

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	244.1		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-4584/3-A
Matrix: Solid
Analysis Batch: 4716

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	244.5		mg/Kg		98	90 - 110	0	20

Lab Sample ID: MB 880-4585/1-A
Matrix: Solid
Analysis Batch: 4717

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			06/29/21 05:23	1

Lab Sample ID: LCS 880-4585/2-A
Matrix: Solid
Analysis Batch: 4717

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	240.8		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-4585/3-A
Matrix: Solid
Analysis Batch: 4717

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	241.6		mg/Kg		97	90 - 110	0	20

QC Sample Results

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-863-10 MS **Client Sample ID: FS17**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4717

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	107		250	346.7		mg/Kg		96	90 - 110		

Lab Sample ID: 890-863-10 MSD **Client Sample ID: FS17**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4717

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	107		250	347.4		mg/Kg		96	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC VOA

Prep Batch: 4592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-4592/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 4593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Total/NA	Solid	5035	
890-863-2	FS09	Total/NA	Solid	5035	
890-863-3	FS10	Total/NA	Solid	5035	
890-863-4	FS11	Total/NA	Solid	5035	
890-863-5	FS12	Total/NA	Solid	5035	
890-863-6	FS13	Total/NA	Solid	5035	
890-863-7	FS14	Total/NA	Solid	5035	
890-863-8	FS15	Total/NA	Solid	5035	
890-863-9	FS16	Total/NA	Solid	5035	
890-863-10	FS17	Total/NA	Solid	5035	
890-863-11	FS18	Total/NA	Solid	5035	
890-863-12	FS19	Total/NA	Solid	5035	
890-863-13	SW01	Total/NA	Solid	5035	
890-863-14	SW02	Total/NA	Solid	5035	
890-863-15	SW03	Total/NA	Solid	5035	
MB 880-4593/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4593/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4593/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-863-1 MS	FS02	Total/NA	Solid	5035	
890-863-1 MSD	FS02	Total/NA	Solid	5035	

Analysis Batch: 4608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Total/NA	Solid	8021B	4593
890-863-2	FS09	Total/NA	Solid	8021B	4593
890-863-3	FS10	Total/NA	Solid	8021B	4593
890-863-4	FS11	Total/NA	Solid	8021B	4593
890-863-5	FS12	Total/NA	Solid	8021B	4593
890-863-6	FS13	Total/NA	Solid	8021B	4593
890-863-7	FS14	Total/NA	Solid	8021B	4593
890-863-8	FS15	Total/NA	Solid	8021B	4593
890-863-9	FS16	Total/NA	Solid	8021B	4593
890-863-10	FS17	Total/NA	Solid	8021B	4593
890-863-11	FS18	Total/NA	Solid	8021B	4593
890-863-12	FS19	Total/NA	Solid	8021B	4593
890-863-13	SW01	Total/NA	Solid	8021B	4593
890-863-14	SW02	Total/NA	Solid	8021B	4593
890-863-15	SW03	Total/NA	Solid	8021B	4593
MB 880-4592/5-A	Method Blank	Total/NA	Solid	8021B	4592
MB 880-4593/5-A	Method Blank	Total/NA	Solid	8021B	4593
LCS 880-4593/1-A	Lab Control Sample	Total/NA	Solid	8021B	4593
LCSD 880-4593/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4593
890-863-1 MS	FS02	Total/NA	Solid	8021B	4593
890-863-1 MSD	FS02	Total/NA	Solid	8021B	4593

QC Association Summary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC VOA

Prep Batch: 4688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Total/NA	Solid	5035	
MB 880-4688/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4688/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4688/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 4689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Total/NA	Solid	8021B	4688
MB 880-4688/5-A	Method Blank	Total/NA	Solid	8021B	4688
LCS 880-4688/1-A	Lab Control Sample	Total/NA	Solid	8021B	4688
LCSD 880-4688/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4688

GC Semi VOA

Prep Batch: 4566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-13	SW01	Total/NA	Solid	8015NM Prep	
890-863-14	SW02	Total/NA	Solid	8015NM Prep	
890-863-15	SW03	Total/NA	Solid	8015NM Prep	
MB 880-4566/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4566/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4566/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 4568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-13	SW01	Total/NA	Solid	8015B NM	4566
890-863-14	SW02	Total/NA	Solid	8015B NM	4566
890-863-15	SW03	Total/NA	Solid	8015B NM	4566
MB 880-4566/1-A	Method Blank	Total/NA	Solid	8015B NM	4566
LCS 880-4566/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4566
LCSD 880-4566/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4566

Prep Batch: 4602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-9	FS16	Total/NA	Solid	8015NM Prep	
890-863-10	FS17	Total/NA	Solid	8015NM Prep	
MB 880-4602/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4602/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4602/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 4609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-9	FS16	Total/NA	Solid	8015B NM	4602
890-863-10	FS17	Total/NA	Solid	8015B NM	4602
MB 880-4602/1-A	Method Blank	Total/NA	Solid	8015B NM	4602
LCS 880-4602/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4602
LCSD 880-4602/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4602

Analysis Batch: 4617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Total/NA	Solid	8015B NM	4619

QC Association Summary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

GC Semi VOA (Continued)

Analysis Batch: 4617 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-2	FS09	Total/NA	Solid	8015B NM	4619
890-863-3	FS10	Total/NA	Solid	8015B NM	4619
890-863-4	FS11	Total/NA	Solid	8015B NM	4619
890-863-5	FS12	Total/NA	Solid	8015B NM	4619
890-863-6	FS13	Total/NA	Solid	8015B NM	4619
890-863-7	FS14	Total/NA	Solid	8015B NM	4619
890-863-8	FS15	Total/NA	Solid	8015B NM	4619
890-863-11	FS18	Total/NA	Solid	8015B NM	4619
890-863-12	FS19	Total/NA	Solid	8015B NM	4619
MB 880-4619/1-A	Method Blank	Total/NA	Solid	8015B NM	4619
LCS 880-4619/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4619
LCSD 880-4619/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4619
890-863-1 MS	FS02	Total/NA	Solid	8015B NM	4619
890-863-1 MSD	FS02	Total/NA	Solid	8015B NM	4619

Prep Batch: 4619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Total/NA	Solid	8015NM Prep	
890-863-2	FS09	Total/NA	Solid	8015NM Prep	
890-863-3	FS10	Total/NA	Solid	8015NM Prep	
890-863-4	FS11	Total/NA	Solid	8015NM Prep	
890-863-5	FS12	Total/NA	Solid	8015NM Prep	
890-863-6	FS13	Total/NA	Solid	8015NM Prep	
890-863-7	FS14	Total/NA	Solid	8015NM Prep	
890-863-8	FS15	Total/NA	Solid	8015NM Prep	
890-863-11	FS18	Total/NA	Solid	8015NM Prep	
890-863-12	FS19	Total/NA	Solid	8015NM Prep	
MB 880-4619/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4619/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4619/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-863-1 MS	FS02	Total/NA	Solid	8015NM Prep	
890-863-1 MSD	FS02	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 4584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Soluble	Solid	DI Leach	
890-863-2	FS09	Soluble	Solid	DI Leach	
890-863-3	FS10	Soluble	Solid	DI Leach	
890-863-4	FS11	Soluble	Solid	DI Leach	
890-863-5	FS12	Soluble	Solid	DI Leach	
890-863-6	FS13	Soluble	Solid	DI Leach	
890-863-7	FS14	Soluble	Solid	DI Leach	
890-863-8	FS15	Soluble	Solid	DI Leach	
890-863-9	FS16	Soluble	Solid	DI Leach	
MB 880-4584/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4584/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4584/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

HPLC/IC

Leach Batch: 4585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-10	FS17	Soluble	Solid	DI Leach	
890-863-11	FS18	Soluble	Solid	DI Leach	
890-863-12	FS19	Soluble	Solid	DI Leach	
890-863-13	SW01	Soluble	Solid	DI Leach	
890-863-14	SW02	Soluble	Solid	DI Leach	
890-863-15	SW03	Soluble	Solid	DI Leach	
MB 880-4585/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4585/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4585/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-863-10 MS	FS17	Soluble	Solid	DI Leach	
890-863-10 MSD	FS17	Soluble	Solid	DI Leach	

Analysis Batch: 4716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-1	FS02	Soluble	Solid	300.0	4584
890-863-2	FS09	Soluble	Solid	300.0	4584
890-863-3	FS10	Soluble	Solid	300.0	4584
890-863-4	FS11	Soluble	Solid	300.0	4584
890-863-5	FS12	Soluble	Solid	300.0	4584
890-863-6	FS13	Soluble	Solid	300.0	4584
890-863-7	FS14	Soluble	Solid	300.0	4584
890-863-8	FS15	Soluble	Solid	300.0	4584
890-863-9	FS16	Soluble	Solid	300.0	4584
MB 880-4584/1-A	Method Blank	Soluble	Solid	300.0	4584
LCS 880-4584/2-A	Lab Control Sample	Soluble	Solid	300.0	4584
LCSD 880-4584/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4584

Analysis Batch: 4717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-863-10	FS17	Soluble	Solid	300.0	4585
890-863-11	FS18	Soluble	Solid	300.0	4585
890-863-12	FS19	Soluble	Solid	300.0	4585
890-863-13	SW01	Soluble	Solid	300.0	4585
890-863-14	SW02	Soluble	Solid	300.0	4585
890-863-15	SW03	Soluble	Solid	300.0	4585
MB 880-4585/1-A	Method Blank	Soluble	Solid	300.0	4585
LCS 880-4585/2-A	Lab Control Sample	Soluble	Solid	300.0	4585
LCSD 880-4585/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4585
890-863-10 MS	FS17	Soluble	Solid	300.0	4585
890-863-10 MSD	FS17	Soluble	Solid	300.0	4585

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS02 Lab Sample ID: 890-863-1

Date Collected: 06/23/21 09:11 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4688	06/28/21 11:30	MR	XEN MID
Total/NA	Analysis	8021B		1	4689	06/28/21 21:49	MR	XEN MID
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 02:06	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 13:44	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 10:49	CH	XEN MID

Client Sample ID: FS09 Lab Sample ID: 890-863-2

Date Collected: 06/23/21 09:24 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 02:32	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 16:08	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 10:54	CH	XEN MID

Client Sample ID: FS10 Lab Sample ID: 890-863-3

Date Collected: 06/23/21 09:23 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 02:57	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 16:21	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 11:11	CH	XEN MID

Client Sample ID: FS11 Lab Sample ID: 890-863-4

Date Collected: 06/23/21 10:28 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 03:23	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 16:36	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 11:16	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS12 Lab Sample ID: 890-863-5

Date Collected: 06/23/21 11:32 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 03:48	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 16:49	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 11:22	CH	XEN MID

Client Sample ID: FS13 Lab Sample ID: 890-863-6

Date Collected: 06/23/21 09:33 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 04:14	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 17:03	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 11:27	CH	XEN MID

Client Sample ID: FS14 Lab Sample ID: 890-863-7

Date Collected: 06/23/21 10:34 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 04:39	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 17:17	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 11:33	CH	XEN MID

Client Sample ID: FS15 Lab Sample ID: 890-863-8

Date Collected: 06/23/21 10:32 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 05:05	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 17:30	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 11:38	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: FS16 Lab Sample ID: 890-863-9

Date Collected: 06/23/21 10:30 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 05:30	MR	XEN MID
Total/NA	Prep	8015NM Prep			4602	06/24/21 16:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4609	06/25/21 20:13	AJ	XEN MID
Soluble	Leach	DI Leach			4584	06/24/21 12:13	CH	XEN MID
Soluble	Analysis	300.0		1	4716	06/29/21 11:44	CH	XEN MID

Client Sample ID: FS17 Lab Sample ID: 890-863-10

Date Collected: 06/23/21 10:58 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 05:56	MR	XEN MID
Total/NA	Prep	8015NM Prep			4602	06/24/21 16:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4609	06/25/21 20:34	AJ	XEN MID
Soluble	Leach	DI Leach			4585	06/24/21 12:16	CH	XEN MID
Soluble	Analysis	300.0		1	4717	06/29/21 05:36	CH	XEN MID

Client Sample ID: FS18 Lab Sample ID: 890-863-11

Date Collected: 06/23/21 10:56 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 07:40	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 17:44	AJ	XEN MID
Soluble	Leach	DI Leach			4585	06/24/21 12:16	CH	XEN MID
Soluble	Analysis	300.0		1	4717	06/29/21 05:49	CH	XEN MID

Client Sample ID: FS19 Lab Sample ID: 890-863-12

Date Collected: 06/23/21 10:55 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 08:06	MR	XEN MID
Total/NA	Prep	8015NM Prep			4619	06/25/21 09:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4617	06/25/21 18:08	AJ	XEN MID
Soluble	Leach	DI Leach			4585	06/24/21 12:16	CH	XEN MID
Soluble	Analysis	300.0		1	4717	06/29/21 05:53	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Client Sample ID: SW01 Lab Sample ID: 890-863-13

Date Collected: 06/23/21 09:13 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 08:32	MR	XEN MID
Total/NA	Prep	8015NM Prep			4566	06/24/21 10:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4568	06/24/21 20:08	AJ	XEN MID
Soluble	Leach	DI Leach			4585	06/24/21 12:16	CH	XEN MID
Soluble	Analysis	300.0		1	4717	06/29/21 05:58	CH	XEN MID

Client Sample ID: SW02 Lab Sample ID: 890-863-14

Date Collected: 06/23/21 09:25 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 08:58	MR	XEN MID
Total/NA	Prep	8015NM Prep			4566	06/24/21 10:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4568	06/24/21 20:29	AJ	XEN MID
Soluble	Leach	DI Leach			4585	06/24/21 12:16	CH	XEN MID
Soluble	Analysis	300.0		1	4717	06/29/21 06:02	CH	XEN MID

Client Sample ID: SW03 Lab Sample ID: 890-863-15

Date Collected: 06/23/21 11:01 **Matrix: Solid**
Date Received: 06/23/21 13:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4593	06/24/21 13:24	MR	XEN MID
Total/NA	Analysis	8021B		1	4608	06/26/21 09:24	MR	XEN MID
Total/NA	Prep	8015NM Prep			4566	06/24/21 10:16	DM	XEN MID
Total/NA	Analysis	8015B NM		1	4568	06/24/21 20:50	AJ	XEN MID
Soluble	Leach	DI Leach			4585	06/24/21 12:16	CH	XEN MID
Soluble	Analysis	300.0		1	4717	06/29/21 06:16	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-863-1
Project/Site: Canvasback 13 Fed 3H SDG: 31402909.06

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (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.

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-863-1
SDG: 31402909.06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-863-1	FS02	Solid	06/23/21 09:11	06/23/21 13:54	1 - 2
890-863-2	FS09	Solid	06/23/21 09:24	06/23/21 13:54	- 2
890-863-3	FS10	Solid	06/23/21 09:23	06/23/21 13:54	- 2
890-863-4	FS11	Solid	06/23/21 10:28	06/23/21 13:54	- 2
890-863-5	FS12	Solid	06/23/21 11:32	06/23/21 13:54	- 1
890-863-6	FS13	Solid	06/23/21 09:33	06/23/21 13:54	- 2
890-863-7	FS14	Solid	06/23/21 10:34	06/23/21 13:54	- 2
890-863-8	FS15	Solid	06/23/21 10:32	06/23/21 13:54	2 - 3
890-863-9	FS16	Solid	06/23/21 10:30	06/23/21 13:54	- 3
890-863-10	FS17	Solid	06/23/21 10:58	06/23/21 13:54	- 3
890-863-11	FS18	Solid	06/23/21 10:56	06/23/21 13:54	- 3
890-863-12	FS19	Solid	06/23/21 10:55	06/23/21 13:54	- 3
890-863-13	SW01	Solid	06/23/21 09:13	06/23/21 13:54	0 - 2
890-863-14	SW02	Solid	06/23/21 09:25	06/23/21 13:54	0 - 2
890-863-15	SW03	Solid	06/23/21 11:01	06/23/21 13:54	0 - 3

Chain of Custody

XENCO LABORATORIES

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

www.xenco.com Page 1 of 2

Work Order No: _____

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc., Permian office	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849 Email:	will.mather@wsp.com, kalei.jennings@wsp.com, itavarez@concho.com	

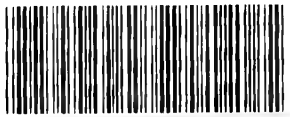
Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Perfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:	31402909.06	Routine ☑	
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	8.4/8.2	Thermometer ID	
Received Intact:	Yes No		TNM007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST



Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS02	s	6/23/2021	9:11	1-2'	1	x	x	x	Composite
FS09	s	6/23/2021	9:24	2'	1	x	x	x	Composite
FS10	s	6/23/2021	9:23	2'	1	x	x	x	Composite
FS11	s	6/23/2021	10:28	2'	1	x	x	x	Composite
FS12	s	6/23/2021	11:32	1'	1	x	x	x	Composite
FS13	s	6/23/2021	9:33	2'	1	x	x	x	Composite
FS14	s	6/23/2021	10:34	2'	1	x	x	x	Composite
FS15	s	6/23/2021	10:32	2-3'	1	x	x	x	Composite
FS16	s	6/23/2021	10:30	3'	1	x	x	x	Composite
FS17	s	6/23/2021	10:58	3'	1	x	x	x	Composite

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6.23.21 1354	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc., Permian office	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	
Phone:	(432) 236-3849	Email:	will.mather@wsp.com, kalei.jennings@wsp.com, itavarez@concho.com

Work Order Comments

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:	31402909.06	Routine	☑
P.O. Number:	Eddy	Rush:	
Sampler's Name:	William Mather	Due Date:	

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS18	s	6/23/2021	10:56	3'	1	x	x	x	Composite
FS19	s	6/23/2021	10:55	3'	1	x	x	x	Composite
SW01	s	6/23/2021	9:13	0-2'	1	x	x	x	Composite
SW02	s	6/23/2021	9:25	0-2'	1	x	x	x	Composite
SW03	s	6/23/2021	11:01	0-3'	1	x	x	x	Composite

ANALYSIS REQUEST

Work Order Notes

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

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		6-23-21 1354	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-863-1
SDG Number: 31402909.06

Login Number: 863
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-863-1
SDG Number: 31402909.06

Login Number: 863
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 06/24/21 12:10 PM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-908-1
Laboratory Sample Delivery Group: 314029.09.06
Client Project/Site: Canvasback 13 Fed 3H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/13/2021 5:38:41 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Laboratory Job ID: 890-908-1
SDG: 314029.09.06

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

Job ID: 890-908-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-908-1

Receipt
The sample was received on 7/7/2021 2:58 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 1.6°C

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

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-908-1
SDG: 314029.09.06

Client Sample ID: FS14A

Date Collected: 07/07/21 12:41
Date Received: 07/07/21 14:58
Sample Depth: - 2

Lab Sample ID: 890-908-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		07/08/21 14:00	07/09/21 11:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		07/08/21 14:00	07/09/21 11:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		07/08/21 14:00	07/09/21 11:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		07/08/21 14:00	07/09/21 11:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		07/08/21 14:00	07/09/21 11:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		07/08/21 14:00	07/09/21 11:56	1
Total BTEX	<0.00402	U	0.00402		mg/Kg		07/08/21 14:00	07/09/21 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*07/08/21 14:00*	*07/09/21 11:56*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*07/08/21 14:00*	*07/09/21 11:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 17:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 17:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 17:27	1
Total TPH	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*07/08/21 14:24*	*07/09/21 17:27*	*1*
o-Terphenyl	*106*		*70 - 130*	*07/08/21 14:24*	*07/09/21 17:27*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**356**		4.99		mg/Kg			07/08/21 19:58	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

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)										
890-908-1	FS14A	115	104										
LCS 880-4983/1-A	Lab Control Sample	111	95										
LCSD 880-4983/2-A	Lab Control Sample Dup	105	100										
MB 880-4955/5-A	Method Blank	115	100										
MB 880-4983/5-A	Method Blank	113	99										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-908-1	FS14A	98	106										
LCS 880-4985/2-A	Lab Control Sample	92	89										
LCSD 880-4985/3-A	Lab Control Sample Dup	94	90										
MB 880-4985/1-A	Method Blank	104	114										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-908-1
SDG: 314029.09.06

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-4955/5-A
Matrix: Solid
Analysis Batch: 4962

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4955

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/08/21 10:35	07/08/21 15:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/08/21 10:35	07/08/21 15:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/08/21 10:35	07/08/21 15:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/08/21 10:35	07/08/21 15:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/08/21 10:35	07/08/21 15:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/08/21 10:35	07/08/21 15:58	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		07/08/21 10:35	07/08/21 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*07/08/21 10:35*	*07/08/21 15:58*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*07/08/21 10:35*	*07/08/21 15:58*	*1*

Lab Sample ID: MB 880-4983/5-A
Matrix: Solid
Analysis Batch: 4962

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 4983

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		07/08/21 12:59	07/09/21 03:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		07/08/21 12:59	07/09/21 03:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		07/08/21 12:59	07/09/21 03:33	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		07/08/21 12:59	07/09/21 03:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		07/08/21 12:59	07/09/21 03:33	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		07/08/21 12:59	07/09/21 03:33	1
Total BTEX	<0.00400	U	0.00400		mg/Kg		07/08/21 12:59	07/09/21 03:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*07/08/21 12:59*	*07/09/21 03:33*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*07/08/21 12:59*	*07/09/21 03:33*	*1*

Lab Sample ID: LCS 880-4983/1-A
Matrix: Solid
Analysis Batch: 4962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 4983

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08444		mg/Kg		84	70 - 130
Toluene	0.100	0.09760		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.1007		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2027		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1049		mg/Kg		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

QC Sample Results

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

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

Lab Sample ID: LCSD 880-4983/2-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 4962 **Prep Batch: 4983**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09024		mg/Kg		90	70 - 130	7	35
Toluene			0.100	0.09871		mg/Kg		99	70 - 130	1	35
Ethylbenzene			0.100	0.1042		mg/Kg		104	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2098		mg/Kg		105	70 - 130	3	35
o-Xylene			0.100	0.1060		mg/Kg		106	70 - 130	1	35

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

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

Lab Sample ID: MB 880-4985/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 5001 **Prep Batch: 4985**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 10:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 10:30	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 10:30	1
Total TPH	<50.0	U	50.0		mg/Kg		07/08/21 14:24	07/09/21 10:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*07/08/21 14:24*	*07/09/21 10:30*	*1*
o-Terphenyl	*114*		*70 - 130*	*07/08/21 14:24*	*07/09/21 10:30*	*1*

Lab Sample ID: LCS 880-4985/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 5001 **Prep Batch: 4985**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1031		mg/Kg		103	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1092		mg/Kg		109	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*89*		*70 - 130*

Lab Sample ID: LCSD 880-4985/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 5001 **Prep Batch: 4985**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1070		mg/Kg		107	70 - 130	4	20

QC Sample Results

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

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

Lab Sample ID: LCSD 880-4985/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 5001 **Prep Batch: 4985**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)			1000	1132		mg/Kg		113	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*94*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-4978/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4999

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			07/08/21 17:56	1

Lab Sample ID: LCS 880-4978/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4999

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	239.4		mg/Kg		96	90 - 110		

Lab Sample ID: LCSD 880-4978/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 4999

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	239.4		mg/Kg		96	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

GC VOA

Prep Batch: 4955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-908-1	FS14A	Total/NA	Solid	5035	
MB 880-4955/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 4962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-908-1	FS14A	Total/NA	Solid	8021B	4955
MB 880-4955/5-A	Method Blank	Total/NA	Solid	8021B	4955
MB 880-4983/5-A	Method Blank	Total/NA	Solid	8021B	4983
LCS 880-4983/1-A	Lab Control Sample	Total/NA	Solid	8021B	4983
LCSD 880-4983/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	4983

Prep Batch: 4983

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-4983/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-4983/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-4983/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 4985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-908-1	FS14A	Total/NA	Solid	8015NM Prep	
MB 880-4985/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-4985/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-4985/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 5001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-908-1	FS14A	Total/NA	Solid	8015B NM	4985
MB 880-4985/1-A	Method Blank	Total/NA	Solid	8015B NM	4985
LCS 880-4985/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	4985
LCSD 880-4985/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	4985

HPLC/IC

Leach Batch: 4978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-908-1	FS14A	Soluble	Solid	DI Leach	
MB 880-4978/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-4978/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-4978/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 4999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-908-1	FS14A	Soluble	Solid	300.0	4978
MB 880-4978/1-A	Method Blank	Soluble	Solid	300.0	4978
LCS 880-4978/2-A	Lab Control Sample	Soluble	Solid	300.0	4978
LCSD 880-4978/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	4978

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

Client Sample ID: FS14A Lab Sample ID: 890-908-1

Date Collected: 07/07/21 12:41 **Matrix: Solid**
Date Received: 07/07/21 14:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4955	07/08/21 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	4962	07/09/21 11:56	MR	XEN MID
Total/NA	Prep	8015NM Prep			4985	07/08/21 14:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5001	07/09/21 17:27	AJ	XEN MID
Soluble	Leach	DI Leach			4978	07/08/21 12:34	CH	XEN MID
Soluble	Analysis	300.0		1	4999	07/08/21 19:58	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-908-1
Project/Site: Canvasback 13 Fed 3H SDG: 314029.09.06

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (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.

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: Canvasback 13 Fed 3H

Job ID: 890-908-1
SDG: 314029.09.06

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-908-1	FS14A	Solid	07/07/21 12:41	07/07/21 14:58	- 2

Chain of Custody

XENCO LABORATORIES

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

Work Order No: _____

www.xenco.com Page 1 of 1

7/13/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavarez
Company Name:	WSP USA Inc.	Company Name:	Concho Operating
Address:	3300 North A Street	Address:	
City, State ZIP:	Midland, TX 79705	City, State ZIP:	
Phone:	432.236.3849	Email:	kalei.jennings@wsp.com;itavarez@concho.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:
Reporting:Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Canvasback 13 Fed 3H	Turn Around	
Project Number:	31402909.06	Routine	~~RK~~
P.O. Number:	Eddy County	Rush:	
Sampler's Name:	Luis Del Val	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	8.2/8.0	Thermometer ID		
Received Intact:	(Yes) No	TNM-007		
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

ANALYSIS REQUEST


890-908 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)
FS14A	S	7/7/2021	1241	2'	1	X	X	X

Work Order Notes

Please include on email:
luis.delval@wsp.com

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

Sample Comments

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

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U ~~1631 / 245.1 / 7470 / 7471~~ : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Clue Cotp	7.7.21 @ 1458			
3			4		
5			6		

Revised Date 051418 Rev. 2018 1

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-291 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Texas		Job #: 890-908-1
Address: 1211 W Florida Ave	Due Date Requested: 7/13/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Canvasback 13 Fed 3H	Project #: 88000207			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	300_ORGFM_28D/DI_LEACH Chloride	8015MOD_NM/8016NM_S_Prep Full TPH	8021B/5035FP_Calc BTEX - LL	Total Number of containers	Special Instructions/Note.
			Preservation Code:								
FS14A (890-908-1)	7/7/21	12 41 Mountain		Solid			X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Clee Cuts 7.7.21				7-8-21 1:30 PM	
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-908-1
SDG Number: 314029.09.06

Login Number: 908
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-908-1
SDG Number: 314029.09.06

Login Number: 908
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 07/08/21 11:28 AM

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

ATTACHMENT 5: FINAL FORM C-141

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

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2115932981
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jacqui Harris	Contact Telephone	(575) 496-0780
Contact email	Jacqui.Harris@conocophillips.com	Incident # *(assigned by OCD)*	
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.22415 Longitude -103.72774
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Canvasback 13 Federal 003H	Site Type	Tank Battery
Date Release Discovered	May 22, 2021	API# *(if applicable)*	30-015-41529

Unit Letter	Section	Township	Range	County
B	13	24S	31E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls) 1	Volume Recovered (bbls) 0
■ Produced Water	Volume Released (bbls) 5	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	■ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a release on the hammer union between tubing due to internal corrosion. The release was on the pad. A vacuum truck was dispatched to remove all freestanding fluids. Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2115932981
District RP	
Facility ID	
Application ID	

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

Initial Response

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

- ■ The source of the release has been stopped.
- ■ The impacted area has been secured to protect human health and the environment.
- ■ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ■ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

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

Printed Name: Brittany N. Esparza Title: HSE Administrative Assistant

Signature: Brittany Esparza Date: 6/8/2021

email: besparza@concho.com Telephone: (432) 221-0398

OCD Only

Received by: Ramona Marcus Date: 6/8/2021

NAPP2115932981

L48 Spill Volume Estimate Form

Facility Name & Number:	Canvasback 13 Federal 003H
Asset Area:	DBWN
Release Discovery Date & Time:	5.22.21 08:28
Release Type:	Produced Water
Provide any known details about the event:	

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	83.0	26.0	0.25	3	2158.000	0.007	2.668	0.000	2.668			
Rectangle B	50.0	12.0	0.25	2	600.000	0.010	1.113	0.001	1.113			
Rectangle C	25.0	15.0	0.25	1	375.000	0.021	1.391	0.001	1.392			
Rectangle D	50.0	16.0	0.25	3	800.000	0.007	0.989	0.000	0.989			
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
								Total Volume Release:	6.163			

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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 30952
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	6/8/2021

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2115932981
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>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?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2115932981
District RP	
Facility ID	
Application ID	

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

Printed Name: Jacqui Harris Title: Environmental Coordinator

Signature: Jacqui Harris Date: 07/28/2021

email: Jacqui.Harris@conocophillips.com Telephone: (575)-496-0780

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2115932981
District RP	
Facility ID	
Application ID	

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 closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Jacqui Harris Title: Environmental Coordinator

Signature: Jacqui Harris Date: 07/28/2021

email: Jacqui.Harris@conocophillips.com Telephone: (575)-496-0780

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2115932981
District RP	
Facility ID	
Application ID	

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Printed Name: Jacqui Harris Title: Environmental Coordinator

Signature: Jacqui Harris Date: 07/28/2021

email: Jacqui.Harris@conocophillips.com Telephone: (575)-496-0780

OCD Only

Received by: Robert Hamlet Date: 10/20/2021

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: Robert Hamlet Date: 10/20/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

CONDITIONS

Action 38767

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 38767
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2115932981 CANVASBACK 13 FEDERAL 003H, thank you. This closure is approved.	10/20/2021