



WSP USA
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Building 1, Unit 222
Midland, Texas 79705
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March 4, 2021

District 1 - Hobbs
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

**Re: Closure Request
Columbus Federal 021H & 022H CTB
Incident Numbers NRM2027647311 and NRM2029631183
Lea County, New Mexico**

To Whom It May Concern:

WSP USA, Inc., on behalf of Concho Operating, LLC (Concho), presents the following Closure Request detailing site assessment, excavation, and soil sampling activities at the Columbus Federal 021H & 022H Central Tank Battery (CTB) (Site) located in Unit A, Section 34, Township 25 South, Range 33 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following two produced water release events at the Site. Based on excavation activities and soil analytical results, Concho is submitting this Closure Request, describing remediation activities that occurred and requesting no further action (NFA) for Incident Numbers NRM2027647311 and NRM2029631183.

RELEASE BACKGROUND

On September 17, 2020, a pin hole on a surface flow line resulted in the release of approximately 87 barrels (bbls) of produced water into the surrounding pasture area east of the well pad. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 70 bbls of produced water were recovered. Concho immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on September 18, 2020 and subsequently submitted a Release Notification and Corrective Action Form C-141 (Form C-141) on October 2, 2020. The release was assigned Incident Number NRM2027647311.

On October 7, 2020, a hole developed in a flow line due to internal corrosion causing a release of approximately 30 bbls of produced water into the surrounding pasture area east of the well pad. The release extent overlapped a portion of the September 17, 2020 release event. A vacuum truck was dispatched to the Site to recover free-standing fluid; approximately 16 bbls of produced water were recovered. Concho immediately reported the release to NMOCD via email on October 8, 2020 and subsequently submitted a Form C-141 on October 20, 2020. The release was assigned Incident Number NRM2029631183.



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 02313, located approximately 0.48 miles northeast of the Site. The groundwater well has a reported depth to groundwater of 110 feet bgs and a total depth of 150 feet bgs. Based on visual observation by Concho and WSP personnel, NMOSE well C 02313 is an inactive windmill. The inactive windmill was most recently measured by Concho in January 2021 with a depth to water measurement of 130 feet bgs. Ground surface elevation at the groundwater well location is 3,323 feet above mean sea level (amsl), which is approximately 4 feet lower in elevation than the Site. 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 potential palustrine emergent wetland, located approximately 0.75 miles northeast 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

A reclamation requirement of 600 mg/kg and 100 mg/kg TPH was applied to the top 4 feet in the pasture area that was impacted by the two releases, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.



SITE ASSESSMENT AND EXCAVATION ACTIVITIES

On January 21, 2021, WSP personnel visited the Site to verify the excavation had been completed by Concho and evaluate site work. Approximately 3,480 cubic yards of impacted soil were removed by Concho operations prior to WSP personnel visiting the Site. The excavation extent was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2A (northern extent), Figure 2B (central extent), and Figure 2C (southern extent). Photographic documentation was conducted and is included in Attachment 2.

WSP personnel 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. Soil from the confirmation samples were field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photoionization detector (PID) and Hach® chloride QuanTab® test strips, respectively.

A total of 77 confirmation floor samples (FS01 through FS77) and 30 original confirmation sidewall samples (SW01 through SW30) were collected from the excavation. The confirmation floor samples were collected at approximately 4 feet bgs. The confirmation sidewall samples were collected from ground surface to a maximum depth of approximately 4 feet bgs. The confirmation soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figures 2A through 2C.

All confirmation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Xenco Laboratories (Xenco) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (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 confirmation sidewall sample SW16 (Figure 2B) indicated chloride concentrations exceeded the reclamation requirement in the top 4 feet and as a result, additional excavation in the vicinity of confirmation sidewall sample SW16 appeared warranted to address residual waste-containing soil. Based on elevated chloride concentrations in soil sample SW16, the excavation was extended. Additional soil was removed from the area around sidewall sample SW16 and subsequent sidewall sample SW31 was compliant with the reclamation requirement. The excavation soil sample was collected, handled, and analyzed as described above. The final excavation soil sample locations are presented on Figures 2A through 2C.



The excavation extent totaled approximately 15,400 square feet. At the completion of excavation activities, approximately 4,300 cubic yards of waste-containing soil were removed. The impacted soil was transported and properly disposed of at the Northern Delaware Basin Landfill located in Jal, New Mexico. The excavated area will be backfilled with material purchased locally and recontoured the Site to match pre-existing site conditions.

SOIL ANALYTICAL RESULTS

Laboratory analytical results for excavation sidewall sample SW16 indicated chloride concentrations initially exceeded the reclamation requirement applied to the top 4 feet of the subsurface in the pasture. Additional waste-containing soil was removed from the area around sidewall sample SW16 and subsequent sidewall sample SW31 was collected. At the completion of excavation activities, all floor samples (FS01 through FS77) and final sidewall samples (SW01 through SW15 and SW17 through SW31) were compliant with Closure Criteria and/or the reclamation requirement. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Attachment 3.

CLOSURE REQUEST

Site assessment and excavation activities were conducted to address the September 17, 2020, and October 7, 2020 produced water releases. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated benzene, BTEX, TPH-GRO/ TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, soil samples collected in the pasture from the top four feet of the subsurface were compliant with the reclamation requirement to have no waste-containing soil within the top 4 feet of the subsurface in locations to be reclaimed immediately. Based on the excavation soil sample analytical results, no further remediation appears necessary. Concho will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. The pasture excavation will be re-seeded with an approved BLM seed mixture.

Initial response efforts, which included removal of free-standing fluids and excavation of impacted and waste-containing soil have mitigated impacts at this Site. Depth to groundwater has been determined to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. WSP and Concho believe these remedial actions are protective of human health, the environment, and groundwater. As such, Concho respectfully requests no further action for Incident Numbers NRM2027647311 and NRM2029631183. A finalized version of the Form C-141 is included in Attachment 4.

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

Sincerely,



District 1
Page 5

WSP USA Inc.

A handwritten signature in black ink, appearing to read 'W. Mather', on a light-colored background.

William Mather
Assistant Consultant

A handwritten signature in black ink, appearing to read 'Ashley L. Ager', on a light-colored background.

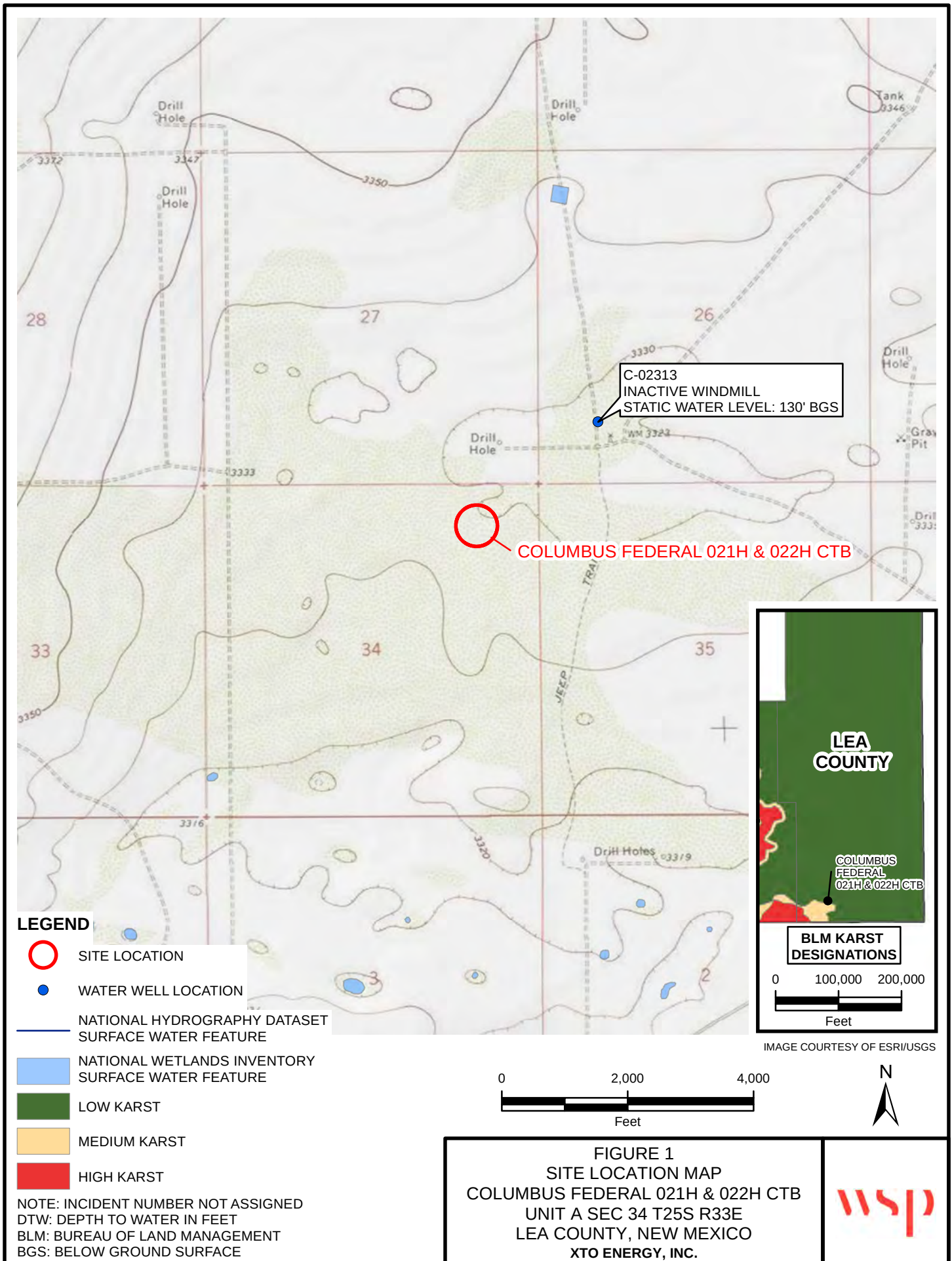
Ashley L. Ager, P.G.
Managing Director, Geologist

cc: Ike Tavaréz, Concho Operating LLC

Attachments:

Figure 1	Site Location Map
Figure 2A	Excavation Soil Sample Locations – Northern Extent
Figure 2B	Excavation Soil Sample Locations – Central Extent
Figure 2C	Excavation Soil Sample Locations – Southern Extent
Table 1	Soil Analytical Results
Attachment 1	Referenced Well Records
Attachment 2	Photographic Log
Attachment 3	Laboratory Analytical Reports
Attachment 4	Finalized Form C-141

FIGURES



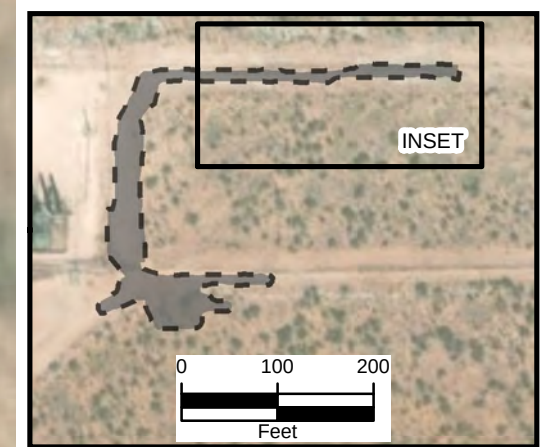
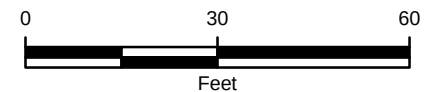


IMAGE COURTESY OF ESRI

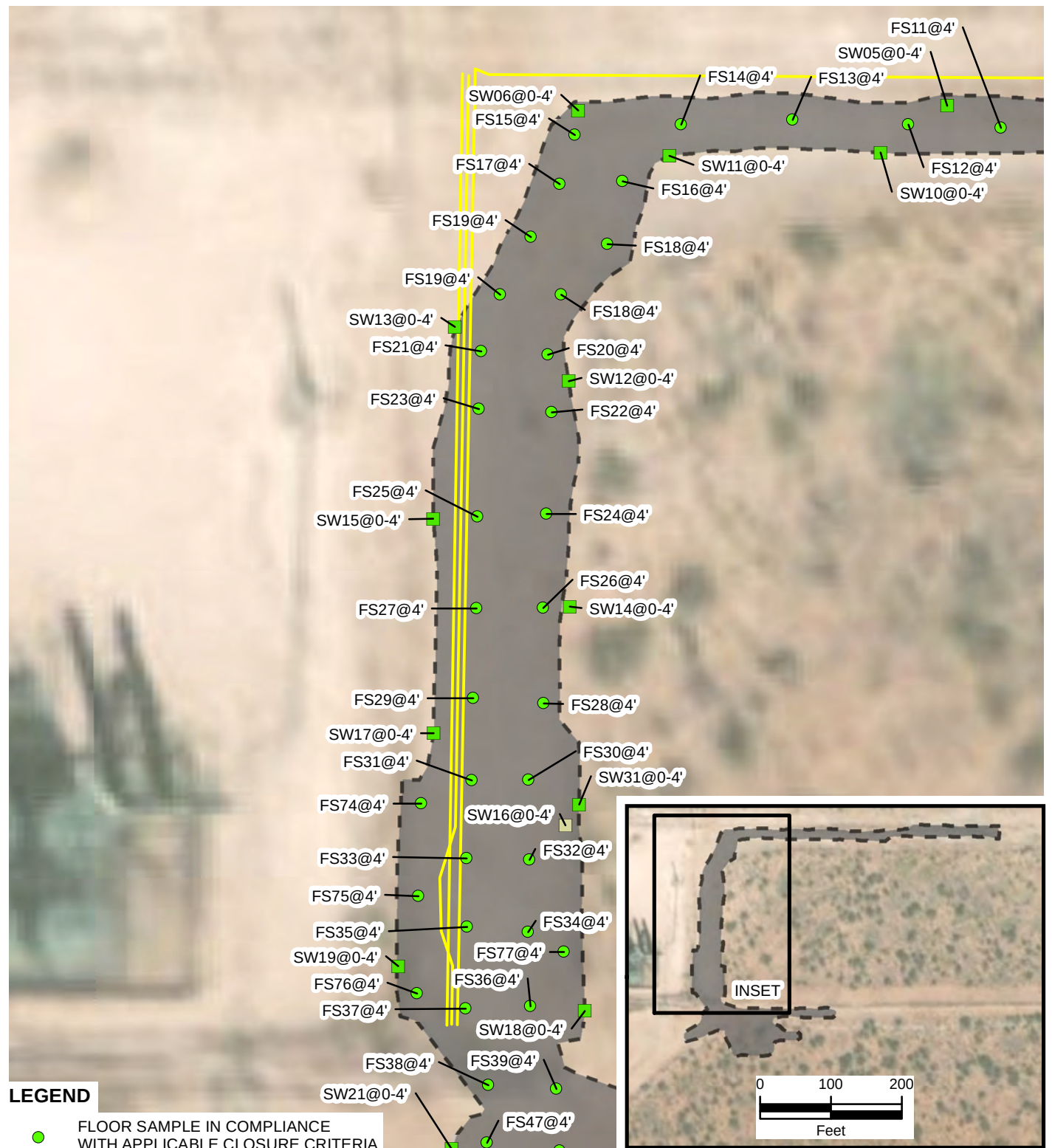
LEGEND

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- EXCAVATION EXTENT



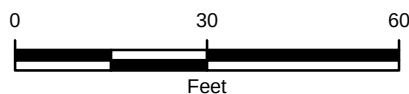
NOTE: INCIDENT NUMBER NOT ASSIGNED
SAMPLE ID@ DEPTH BELOW GROUND SURFACE (FEET)

FIGURE 2A
EXCAVATION SOIL SAMPLE LOCATIONS - NORTHERN EXTENT
COLUMBUS FEDERAL 021H & 022H CTB
UNIT A SEC 34 T25S R33E
LEA COUNTY, NEW MEXICO
CONCHO OPERATING

**LEGEND**

- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA AND HAS BEEN EXCAVATED
- SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- GAS LINE
- EXCAVATION EXTENT

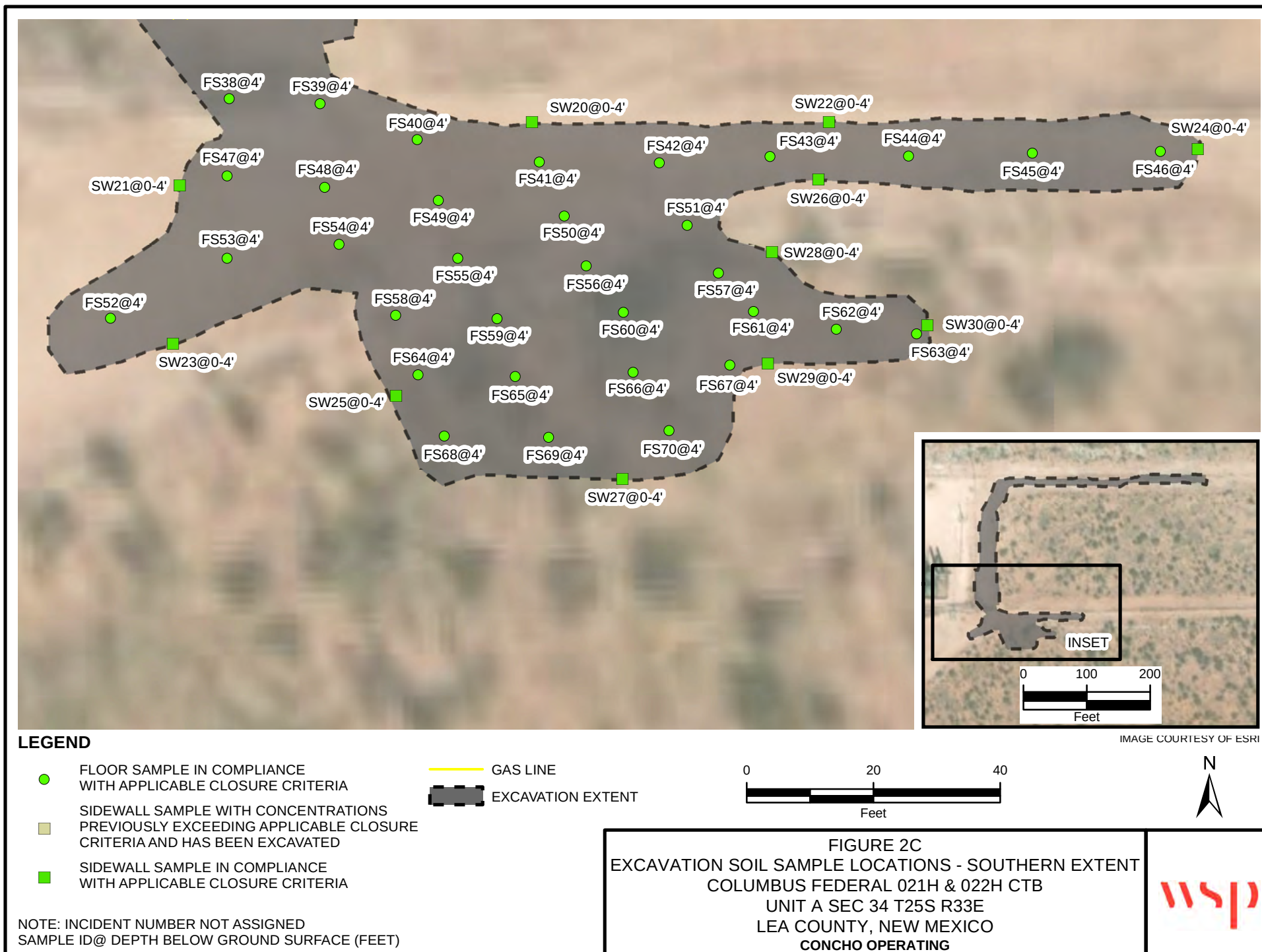
NOTE: INCIDENT NUMBER NOT ASSIGNED
 SAMPLE ID@ DEPTH BELOW GROUND
 SURFACE (FEET)

**FIGURE 2B**

EXCAVATION SOIL SAMPLE LOCATIONS - CENTRAL EXTENT
COLUMBUS FEDERAL 021H & 022H CTB
UNIT A SEC 34 T25S R33E
LEA COUNTY, NEW MEXICO
CONCHO OPERATING



IMAGE COURTESY OF ESRI



TABLES

Table 1

Soil Analytical Results
Columbus Federal 021H & 022H CTB
Incident Numbers NRM2027647311 and NRM2029631183
Lea 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
Excavation Floor Samples										
FS01	01/21/2021	4	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	1,440
FS02	01/21/2021	4	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	1,830
FS03	01/21/2021	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,320
FS04	01/21/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	2,930
FS05	01/21/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	3,080
FS06	01/21/2021	4	<0.00200	0.00372	<50.1	<50.1	<50.1	<50.1	<50.1	189
FS07	01/21/2021	4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	403
FS08	01/21/2021	4	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	561
FS09	01/21/2021	4	<0.000179	<0.000179	<50.0	<50.0	<50.0	<50.0	<50.0	2,050
FS10	01/21/2021	4	<0.00200	<0.00200	61.3	<50.0	<50.0	61.3	61.3	2,320
FS11	01/21/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,460
FS12	01/21/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,460
FS13	01/21/2021	4	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	1,430
FS14	01/21/2021	4	<0.00200	0.00430	<50.0	<50.0	<50.0	<50.0	<50.0	1,630
FS15	01/21/2021	4	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	<50.2	817
FS16	01/21/2021	4	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	854
FS17	01/21/2021	4	<0.00198	<0.00198	<50.2	<50.2	<50.2	<50.2	<50.2	3,630
FS18	02/3/2021	4	<0.00202	<0.00202	<50.3	<50.3	<50.3	<50.3	<50.3	1,700
FS19	02/3/2021	4	<0.00202	<0.00202	<49.7	<49.7	<49.7	<49.7	<49.7	1,100
FS20	01/21/2021	4	<0.00198	<0.00198	<50.3	<50.3	<50.3	<50.3	<50.3	872

Table 1

Soil Analytical Results
Columbus Federal 021H & 022H CTB
Incident Numbers NRM2027647311 and NRM2029631183
Lea 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
FS21	01/21/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,820
FS22	01/21/2021	4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	609
FS23	01/21/2021	4	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	2,430
FS24	01/21/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,490
FS25	01/21/2021	4	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	1,010
FS26	01/21/2021	4	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	1,520
FS27	01/21/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,640
FS28	01/21/2021	4	<0.00201	<0.00201	<50.1	<50.1	<50.1	<50.1	<50.1	19.0
FS29	01/21/2021	4	<0.00202	<0.00202	<50.1	<50.1	<50.1	<50.1	<50.1	407
FS30	01/21/2021	4	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	550
FS31	01/21/2021	4	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	2,070
FS32	01/21/2021	4	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	2,250
FS33	01/21/2021	4	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	3,120
FS34	01/21/2021	4	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	3,790
FS35	01/21/2021	4	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	<50.2	1,410
FS36	01/21/2021	4	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	1,640
FS37	01/21/2021	4	<0.00202	<0.00202	<50.2	<50.2	<50.2	<50.2	<50.2	817
FS38	02/1/2021	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	7,380
FS39	02/1/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	9,820
FS40	02/1/2021	4	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	3,910
FS41	02/1/2021	4	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	3,510

Table 1

Soil Analytical Results
Columbus Federal 021H & 022H CTB
Incident Numbers NRM2027647311 and NRM2029631183
Lea 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
FS42	02/1/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,560
FS43	02/1/2021	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,370
FS44	02/1/2021	4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	2,740
FS45	02/1/2021	4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	215
FS46	02/1/2021	4	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	495
FS47	02/1/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,180
FS48	02/1/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,530
FS49	02/1/2021	4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	3,500
FS50	02/1/2021	4	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	2,330
FS51	02/1/2021	4	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	1,120
FS52	02/3/2021	4	<0.00199	<0.00199	<49.7	<49.7	<49.7	<49.7	<49.7	5,330
FS53	02/3/2021	4	<0.00200	<0.00200	<49.5	<49.5	<49.5	<49.5	<49.5	679
FS54	02/1/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	3,210
FS55	02/1/2021	4	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	9,560
FS56	02/1/2021	4	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	2,720
FS57	02/1/2021	4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	1,490
FS58	02/1/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	9,420
FS59	02/1/2021	4	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	5,430
FS60	02/1/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	2,370
FS61	02/1/2021	4	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	3,820
FS62	02/1/2021	4	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	1,680

Table 1

Soil Analytical Results
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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
FS63	02/1/2021	4	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	821
FS64	02/1/2021	4	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	3,060
FS65	02/1/2021	4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	3,610
FS66	02/1/2021	4	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	2,410
FS67	02/1/2021	4	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	3,290
FS68	02/1/2021	4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	4,360
FS69	02/1/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	530
FS70	02/1/2021	4	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	410
FS71	02/3/2021	4	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	2,370
FS72	02/3/2021	4	<0.00202	<0.00202	<50.5	<50.5	<50.5	<50.5	<50.5	941
FS73	02/3/2021	4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	3,880
FS74	02/3/2021	4	<0.00200	<0.00200	<49.5	<49.5	<49.5	<49.5	<49.5	621
FS75	02/3/2021	4	<0.00200	<0.00200	<49.6	<49.6	<49.6	<49.6	<49.6	4,430
FS76	02/3/2021	4	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	792
FS77	02/3/2021	4	<0.00198	<0.00198	116	<49.6	<49.6	116	116	3,340
Excavation Sidewall Samples										
SW01	01/28/2021	0 - 4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	165*
SW02	01/28/2021	0 - 4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	265*
SW03	01/27/2021	0 - 4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<9.90*
SW04	01/27/2021	0 - 4	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	15.3*
SW05	01/27/2021	0 - 4	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	15.6*

Table 1

Soil Analytical Results
Columbus Federal 021H & 022H CTB
Incident Numbers NRM2027647311 and NRM2029631183
Lea 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
SW06	01/27/2021	0 - 4	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	33.9*
SW07	01/27/2021	0 - 4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	194*
SW08	01/27/2021	0 - 4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	253*
SW09	01/21/2021	0 - 4	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	<50.2	80.4*
SW10	01/21/2021	0 - 4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	12.9*
SW11	01/21/2021	0 - 4	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	244*
SW12	01/21/2021	0 - 4	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	<50.3	16.9*
SW13	01/21/2021	0 - 4	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	42.4*
SW14	01/21/2021	0 - 4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	242*
SW15	02/2/2021	0 - 4	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	73.5*
SW16	01/28/2021	0 - 4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	677*
SW17	02/1/2021	0 - 4	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	258*
SW18	01/28/2021	0 - 4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	50.5*
SW19	02/1/2021	0 - 4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	279*
SW20	02/2/2021	0 - 4	<0.00198	<0.00198	<49.6	<49.6	<49.6	<49.6	<49.6	355*
SW21	01/28/2021	0 - 4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	184*
SW22	02/2/2021	0 - 4	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	19.5*
SW23	02/2/2021	0 - 4	<0.00200	<0.00200	<49.5	<49.5	<49.5	<49.5	<49.5	136*
SW24	01/21/2021	0 - 4	<0.00198	<0.00198	<50.1	<50.1	<50.1	<50.1	<50.1	10.1*
SW25	02/2/2021	0 - 4	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	82.2*
SW26	01/21/2021	0 - 4	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	494*

Table 1

Soil Analytical Results
Columbus Federal 021H & 022H CTB
Incident Numbers NRM2027647311 and NRM2029631183
Lea 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
SW27	01/21/2021	0 - 4	<0.00201	<0.00201	<50.3	<50.3	<50.3	<50.3	<50.3	418*
SW28	02/1/2021	0 - 4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	15.6*
SW29	01/21/2021	0 - 4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	218*
SW30	02/1/2021	0 - 4	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	47.5*
SW31	02/11/2021	0 - 4	<0.00200	<0.00200	<50.1	<50.1	<50.1	<50.1	<50.1	210*

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

 impacted soil was removed

* - indicates sample was collected in area to be reclaimed after remediation is complete;
 closure criteria for chloride concentration in the top 4 feet of soil is 600 mg/kg

ATTACHMENT 1: REFERENCED WELL RECORD

ATTACHMENT 2: PHOTOGRAPHIC LOG

**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico****Photo No.**

1

Date

January 20, 2021

Description: View of northern excavation extent, facing east, prior to WSP excavation oversite.



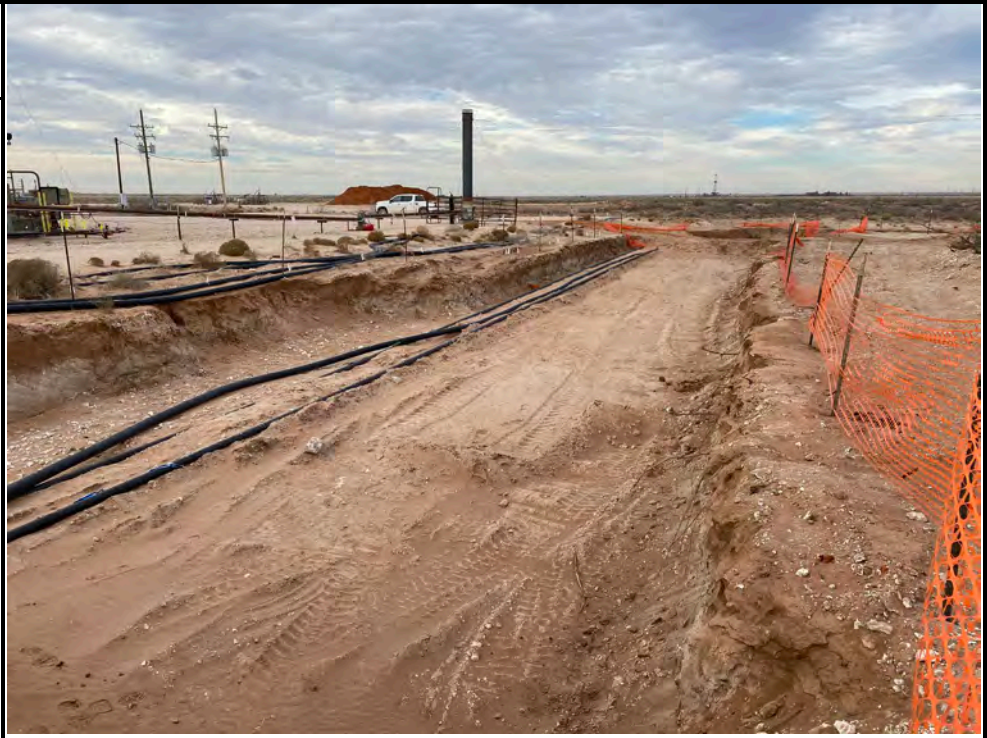
**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico****Photo No.**

2

Date

January 20, 2021

Description: View of central excavation extent, facing northwest, prior to WSP excavation oversite.



**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico****Photo No.**

3

Date

January 20, 2021

Description: View of southern
excavation extent, facing south,
prior to WSP excavation oversite.



**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico**

Photo No.	Date	
4	January 20, 2021	
Description: View of southern excavation extent, facing southeast, prior to WSP excavation oversite.		A photograph showing a large, deep excavation in a dry, brownish landscape. Orange plastic safety netting is strung across the foreground and middle ground. A black pipe or hose runs along the edge of the excavation. The sky is overcast with grey clouds.



PHOTOGRAPHIC LOG

Concho Operating, Inc.	Columbus Federal 021H & 022H CTB Lea County, New Mexico	
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Photo No.	Date	
5	January 27, 2021	
Description: View of mini-excavator removing impacted soil from the sidewalls in northern excavation extent.		 A photograph showing a mini-excavator with a black body and yellow accents, including the word 'DEERE' on its arm, working in a large, deep excavation. The excavator is positioned on the right side of the frame, with its arm extended towards the center. Two workers wearing hard hats and safety gear are visible on the left side of the excavation, standing on a pile of dirt. The ground is uneven and covered with loose soil and rocks. The background shows a flat, arid landscape under a clear blue sky.



PHOTOGRAPHIC LOG

Concho Operating, Inc.

Columbus Federal 021H & 022H CTB
Lea County, New Mexico

Photo No.

6

Date

January 27, 2021

Description: View of mini-excavator removing impacted soil from the sidewalls in southern excavation extent.



**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico****Photo No.**

7

Date

February 3, 2021

Description: View of central excavation extent, facing south, after WSP excavation oversite.



**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico****Photo No.**

8

Date

February 3, 2021

Description: View of northern excavation extent, facing east, after WSP excavation oversite.



**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico****Photo No.**

9

Date

February 3, 2021

Description: View of central excavation extent, facing north, after WSP excavation oversite.



**PHOTOGRAPHIC LOG**

Concho Operating, Inc.	Columbus Federal 021H & 022H CTB Lea County, New Mexico	
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Photo No.	Date	
10	February 3, 2021	
Description: View of southern excavation extent, facing south, after WSP excavation oversite.		 A photograph showing a large, deep excavation site in a desert environment. The ground is reddish-brown dirt and sand, with visible tire tracks from heavy machinery. The excavation is deep and wide, with a steep, eroded bank on the right side. In the background, there are some sparse desert plants and a clear blue sky with a few wispy clouds. A white pipe or structure is visible on the left side of the excavation.

**PHOTOGRAPHIC LOG****Concho Operating, Inc.****Columbus Federal 021H & 022H CTB
Lea County, New Mexico****Photo No.**

11

Date

February 3, 2021

Description: View of southern
excavation extent, facing southeast,
after WSP excavation oversight.

ATTACHMENT 3: LABORATORY ANALYTICAL RESULTS

Certificate of Analysis Summary 685783



WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
Contact: Kalei Jennings
Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
Report Date: 01.29.2021 18:14
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-001	685783-002	685783-003	685783-004	685783-005	685783-006
	Field Id:	SW09	SW10	SW11	SW12	SW13	SW14
	Depth:	0-4 ft	0-4 ft	0-4 ft	0-4 ft	0-4 ft	0-4 ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.20.2021 13:57	01.20.2021 14:01	01.20.2021 14:07	01.20.2021 14:11	01.21.2021 09:49	01.21.2021 09:53
BTEX by EPA 8021B	Extracted:	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20
	Analyzed:	01.25.2021 17:52	01.25.2021 18:14	01.25.2021 18:36	01.25.2021 18:59	01.25.2021 19:21	01.25.2021 19:44
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	Extracted:	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19
	Analyzed:	01.22.2021 22:01	01.22.2021 22:18	01.22.2021 22:24	01.22.2021 22:30	01.22.2021 22:35	01.22.2021 22:52
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		80.4 10.1	12.9 9.90	244 9.90	16.9 10.0	42.4 9.96	242 9.94
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00
	Analyzed:	01.26.2021 18:41	01.26.2021 19:44	01.26.2021 20:05	01.26.2021 20:26	01.26.2021 20:48	01.26.2021 21:09
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9
Total TPH		<50.2 50.2	<50.0 50.0	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 685783



WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
 Contact: Kalei Jennings
 Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
 Report Date: 01.29.2021 18:14
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-007	685783-008	685783-009	685783-010	685783-011	685783-012
	Field Id:	SW24	SW26	SW27	SW29	FS37	FS36
	Depth:	0-4 ft	0-4 ft	0-4 ft	0-4 ft	4- ft	4- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.21.2021 10:27	01.21.2021 10:34	01.21.2021 10:37	01.21.2021 10:42	01.21.2021 11:44	01.21.2021 11:47
BTEX by EPA 8021B	Extracted:	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20
	Analyzed:	01.25.2021 20:06	01.25.2021 20:28	01.25.2021 20:51	01.25.2021 21:13	01.25.2021 22:33	01.25.2021 22:55
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
m,p-Xylenes		<0.00397 0.00397	<0.00401 0.00401	<0.00402 0.00402	<0.00403 0.00403	<0.00404 0.00404	<0.00399 0.00399
o-Xylene		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00200 0.00200	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202	<0.00200 0.00200
Chloride by EPA 300	Extracted:	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19
	Analyzed:	01.22.2021 22:58	01.22.2021 23:04	01.22.2021 23:09	01.22.2021 23:15	01.22.2021 23:21	01.22.2021 23:38
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		10.1 9.98	494 D 49.5	418 D 49.9	218 10.1	817 DX 98.8	1640 D 101
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00
	Analyzed:	01.26.2021 21:31	01.26.2021 21:52	01.26.2021 22:14	01.26.2021 22:35	01.26.2021 23:19	01.26.2021 23:41
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.1 50.1	<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<50.2 50.2
Diesel Range Organics (DRO)		<50.1 50.1	<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<50.2 50.2
Total TPH		<50.1 50.1	<49.9 49.9	<50.3 50.3	<50.0 50.0	<50.2 50.2	<50.2 50.2

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 685783



WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
 Contact: Kalei Jennings
 Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
 Report Date: 01.29.2021 18:14
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-013	685783-014	685783-015	685783-016	685783-017	685783-018
	Field Id:	FS35	FS34	FS33	FS32	FS31	FS30
	Depth:	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.21.2021 11:42	01.21.2021 11:43	01.21.2021 11:39	01.21.2021 11:41	01.21.2021 11:35	01.21.2021 11:38
BTEX by EPA 8021B	Extracted:	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20	01.25.2021 15:20
	Analyzed:	01.25.2021 23:18	01.25.2021 23:40	01.26.2021 00:03	01.26.2021 00:25	01.26.2021 00:48	01.26.2021 01:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398	<0.00399 0.00399	<0.00399 0.00399	<0.00397 0.00397
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	Extracted:	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19	01.22.2021 17:19
	Analyzed:	01.22.2021 23:43	01.23.2021 00:00	01.23.2021 00:06	01.23.2021 00:12	01.23.2021 00:17	01.23.2021 00:23
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1410 D 100	3790 D 201	3120 D 199	2250 D 99.4	2070 D 100	550 D 100
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00
	Analyzed:	01.27.2021 00:03	01.27.2021 00:24	01.27.2021 00:47	01.27.2021 01:09	01.27.2021 01:30	01.27.2021 01:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9
Total TPH		<50.2 50.2	<50.2 50.2	<49.8 49.8	<50.3 50.3	<50.1 50.1	<49.9 49.9

BRL - Below Reporting Limit

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Certificate of Analysis Summary 685783



WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
Contact: Kalei Jennings
Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
Report Date: 01.29.2021 18:14
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-019		685783-020		685783-021		685783-022		685783-023		685783-024	
	Field Id:	FS29		FS28		FS27		FS26		FS25		FS24	
	Depth:	4- ft		4- ft		4- ft		4- ft		4- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	01.21.2021 11:33		01.21.2021 11:34		01.21.2021 11:30		01.21.2021 11:41		01.21.2021 11:28		01.21.2021 11:29	
BTEX by EPA 8021B	Extracted:	01.25.2021 15:20		01.25.2021 15:20		01.25.2021 16:22		01.25.2021 16:22		01.25.2021 16:22		01.25.2021 16:22	
	Analyzed:	01.26.2021 01:33		01.26.2021 01:55		01.26.2021 05:36		01.26.2021 06:05		01.26.2021 06:28		01.26.2021 06:50	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Toluene		<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Ethylbenzene		<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
m,p-Xylenes		<0.00403	0.00403	<0.00402	0.00402	<0.00401	0.00401	<0.00401	0.00401	<0.00399	0.00399	<0.00398	0.00398
o-Xylene		<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total Xylenes		<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Total BTEX		<0.00202	0.00202	<0.00201	0.00201	<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199
Chloride by EPA 300	Extracted:	01.22.2021 17:19		01.22.2021 17:19		01.25.2021 09:22		01.25.2021 09:22		01.25.2021 09:22		01.25.2021 09:22	
	Analyzed:	01.23.2021 00:29		01.23.2021 00:34		01.25.2021 14:12		01.25.2021 14:29		01.25.2021 14:35		01.25.2021 14:40	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		407 D	101	19.0 D	10.0	3640	100	1520	100	1010	99.4	1490	99.4
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.26.2021 12:00		01.26.2021 12:00		01.26.2021 12:00		01.26.2021 12:00		01.26.2021 12:00		01.26.2021 12:00	
	Analyzed:	01.27.2021 02:15		01.27.2021 02:37		01.26.2021 18:41		01.26.2021 19:44		01.26.2021 20:05		01.26.2021 20:26	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<50.1	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<49.8	49.8	<50.0	50.0
Diesel Range Organics (DRO)		<50.1	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.1	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<49.8	49.8	<50.0	50.0
Total TPH		<50.1	50.1	<50.1	50.1	<50.0	50.0	<50.1	50.1	<49.8	49.8	<50.0	50.0

BRL - Below Reporting Limit

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Certificate of Analysis Summary 685783



WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
Contact: Kalei Jennings
Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
Report Date: 01.29.2021 18:14
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-025	685783-026	685783-027	685783-028	685783-029	685783-030
	Field Id:	FS23	FS22	FS21	FS20	FS17	FS16
	Depth:	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.21.2021 11:26	01.21.2021 11:26	01.21.2021 11:25	01.21.2021 11:24	01.21.2021 11:17	01.21.2021 11:14
BTEX by EPA 8021B	Extracted:	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22
	Analyzed:	01.26.2021 07:13	01.26.2021 07:35	01.26.2021 07:58	01.26.2021 08:20	01.26.2021 09:27	01.26.2021 09:50
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00399 0.00399	<0.00401 0.00401	<0.00399 0.00399	<0.00397 0.00397	<0.00397 0.00397	<0.00399 0.00399
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	Extracted:	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22
	Analyzed:	01.25.2021 14:46	01.25.2021 15:03	01.25.2021 15:09	01.25.2021 15:14	01.25.2021 15:20	01.25.2021 15:26
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2430 101	609 101	3820 99.0	872 101	3630 99.6	854 100
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00
	Analyzed:	01.26.2021 20:48	01.26.2021 21:09	01.26.2021 21:31	01.26.2021 21:52	01.26.2021 22:14	01.26.2021 22:35
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.1 50.1
Diesel Range Organics (DRO)		<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.1 50.1
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.1 50.1
Total TPH		<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.3 50.3	<50.2 50.2	<50.1 50.1

BRL - Below Reporting Limit

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Certificate of Analysis Summary 685783



WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
 Contact: Kalei Jennings
 Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
 Report Date: 01.29.2021 18:14
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-031	685783-032	685783-033	685783-034	685783-035	685783-036
	Field Id:	FS15	FS14	FS13	FS12	FS11	FS10
	Depth:	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.21.2021 11:15	01.21.2021 11:13	01.21.2021 11:10	01.21.2021 11:07	01.21.2021 11:05	01.21.2021 10:53
BTEX by EPA 8021B	Extracted:	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22
	Analyzed:	01.26.2021 10:18	01.26.2021 10:47	01.26.2021 11:10	01.26.2021 11:32	01.26.2021 11:55	01.26.2021 12:17
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	0.00430 0.00401	<0.00403 0.00403	<0.00401 0.00401	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	0.00430 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	0.00430 0.00200	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	Extracted:	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22
	Analyzed:	01.25.2021 15:31	01.25.2021 15:48	01.25.2021 15:54	01.25.2021 16:11	01.25.2021 16:17	01.25.2021 16:22
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		817 100	1630 99.8	1430 99.8	3460 99.2	3460 99.6	2320 99.8
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00
	Analyzed:	01.26.2021 23:19	01.26.2021 23:41	01.27.2021 00:03	01.27.2021 00:24	01.27.2021 00:47	01.27.2021 01:09
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.0 50.0	<50.0 50.0	61.3 50.0
Diesel Range Organics (DRO)		<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.0 50.0	<50.0 50.0	<50.0 50.0
Total TPH		<50.2 50.2	<50.0 50.0	<50.1 50.1	<50.0 50.0	<50.0 50.0	61.3 50.0

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Certificate of Analysis Summary 685783



WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
Contact: Kalei Jennings
Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
Report Date: 01.29.2021 18:14
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-037	685783-038	685783-039	685783-040	685783-041	685783-042
	Field Id:	FS09	FS08	FS07	FS06	FS05	FS04
	Depth:	4- ft	4- ft	4- ft	4- ft	4- ft	4- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	01.21.2021 10:47	01.21.2021 10:42	01.21.2021 10:36	01.21.2021 10:30	01.21.2021 10:22	01.21.2021 10:17
BTEX by EPA 8021B	Extracted:	01.25.2021 16:22	01.25.2021 16:22	01.25.2021 16:22	01.26.2021 16:00	01.26.2021 16:00	01.26.2021 16:00
	Analyzed:	01.26.2021 12:39	01.26.2021 13:02	01.26.2021 13:24	01.26.2021 20:04	01.26.2021 20:27	01.26.2021 20:49
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.000179 0.000179	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Toluene		<0.000179 0.000179	<0.00200 0.00200	<0.00199 0.00199	0.00372 X 0.00200	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene		<0.000179 0.000179	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes		<0.000357 0.000357	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398
o-Xylene		<0.000179 0.000179	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes		<0.000179 0.000179	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total BTEX		<0.000179 0.000179	<0.00200 0.00200	<0.00199 0.00199	0.00372 0.00200	<0.00199 0.00199	<0.00199 0.00199
Chloride by EPA 300	Extracted:	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	01.25.2021 09:22	*** ** *	*** ** *
	Analyzed:	01.25.2021 16:28	01.25.2021 16:34	01.25.2021 16:39	01.25.2021 16:45	01.23.2021 01:08	01.23.2021 01:25
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2050 99.6	561 100	403 99.0	189 49.9	3080 50.2	2930 101
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.26.2021 12:00	01.27.2021 12:00	01.27.2021 12:00
	Analyzed:	01.27.2021 01:30	01.27.2021 01:53	01.27.2021 02:15	01.27.2021 02:37	01.27.2021 15:15	01.27.2021 17:22
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0
Total TPH		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.1 50.1	<50.0 50.0	<50.0 50.0

BRL - Below Reporting Limit

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Certificate of Analysis Summary 685783

WSP USA, Dallas, TX

Project Name: Columbus Federal 021 H & 022 H CTB

Project Id: 31402909.01
Contact: Kalei Jennings
Project Location: Lea

Date Received in Lab: Fri 01.22.2021 13:45
Report Date: 01.29.2021 18:14
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	685783-043	685783-044	685783-045			
	Field Id:	FS03	FS02	FS01			
	Depth:	4- ft	4- ft	4- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	01.21.2021 10:09	01.21.2021 10:05	01.21.2021 09:57			
BTEX by EPA 8021B	Extracted:	01.26.2021 16:00	01.26.2021 16:00	01.26.2021 16:00			
	Analyzed:	01.26.2021 21:12	01.26.2021 21:34	01.26.2021 21:56			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201			
Toluene		<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201			
Ethylbenzene		<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201			
m,p-Xylenes		<0.00397 0.00397	<0.00403 0.00403	<0.00402 0.00402			
o-Xylene		<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201			
Total Xylenes		<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201			
Total BTEX		<0.00198 0.00198	<0.00202 0.00202	<0.00201 0.00201			
Chloride by EPA 300	Extracted:	*** ** *	*** ** *	*** ** *			
	Analyzed:	01.23.2021 01:31	01.23.2021 01:37	01.23.2021 01:42			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		1320 99.0	1830 99.0	1440 99.0			
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	01.27.2021 12:00	01.27.2021 12:00	01.27.2021 12:00			
	Analyzed:	01.27.2021 17:43	01.27.2021 18:04	01.27.2021 18:46			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0			
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0			
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0			
Total TPH		<50.0 50.0	<49.9 49.9	<50.0 50.0			

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico





Analytical Report 685783

for

WSP USA

Project Manager: Kalei Jennings

Columbus Federal 021 H & 022 H CTB

31402909.01

01.29.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



01.29.2021

Project Manager: **Kalei Jennings**

WSP USA

2777 N. Stemmons Freeway, Suite 1600

Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **685783**

Columbus Federal 021 H & 022 H CTB

Project Address: Lea

Kalei Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 685783. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 685783 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Sample Cross Reference 685783

WSP USA, Dallas, TX

Columbus Federal 021 H & 022 H CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW09	S	01.20.2021 13:57	0 - 4 ft	685783-001
SW10	S	01.20.2021 14:01	0 - 4 ft	685783-002
SW11	S	01.20.2021 14:07	0 - 4 ft	685783-003
SW12	S	01.20.2021 14:11	0 - 4 ft	685783-004
SW13	S	01.21.2021 09:49	0 - 4 ft	685783-005
SW14	S	01.21.2021 09:53	0 - 4 ft	685783-006
SW24	S	01.21.2021 10:27	0 - 4 ft	685783-007
SW26	S	01.21.2021 10:34	0 - 4 ft	685783-008
SW27	S	01.21.2021 10:37	0 - 4 ft	685783-009
SW29	S	01.21.2021 10:42	0 - 4 ft	685783-010
FS37	S	01.21.2021 11:44	4 ft	685783-011
FS36	S	01.21.2021 11:47	4 ft	685783-012
FS35	S	01.21.2021 11:42	4 ft	685783-013
FS34	S	01.21.2021 11:43	4 ft	685783-014
FS33	S	01.21.2021 11:39	4 ft	685783-015
FS32	S	01.21.2021 11:41	4 ft	685783-016
FS31	S	01.21.2021 11:35	4 ft	685783-017
FS30	S	01.21.2021 11:38	4 ft	685783-018
FS29	S	01.21.2021 11:33	4 ft	685783-019
FS28	S	01.21.2021 11:34	4 ft	685783-020
FS27	S	01.21.2021 11:30	4 ft	685783-021
FS26	S	01.21.2021 11:41	4 ft	685783-022
FS25	S	01.21.2021 11:28	4 ft	685783-023
FS24	S	01.21.2021 11:29	4 ft	685783-024
FS23	S	01.21.2021 11:26	4 ft	685783-025
FS22	S	01.21.2021 11:26	4 ft	685783-026
FS21	S	01.21.2021 11:25	4 ft	685783-027
FS20	S	01.21.2021 11:24	4 ft	685783-028
FS17	S	01.21.2021 11:17	4 ft	685783-029
FS16	S	01.21.2021 11:14	4 ft	685783-030
FS15	S	01.21.2021 11:15	4 ft	685783-031
FS14	S	01.21.2021 11:13	4 ft	685783-032
FS13	S	01.21.2021 11:10	4 ft	685783-033
FS12	S	01.21.2021 11:07	4 ft	685783-034
FS11	S	01.21.2021 11:05	4 ft	685783-035
FS10	S	01.21.2021 10:53	4 ft	685783-036
FS09	S	01.21.2021 10:47	4 ft	685783-037
FS08	S	01.21.2021 10:42	4 ft	685783-038
FS07	S	01.21.2021 10:36	4 ft	685783-039
FS06	S	01.21.2021 10:30	4 ft	685783-040
FS05	S	01.21.2021 10:22	4 ft	685783-041
FS04	S	01.21.2021 10:17	4 ft	685783-042
FS03	S	01.21.2021 10:09	4 ft	685783-043



Sample Cross Reference 685783

WSP USA, Dallas, TX

Columbus Federal 021 H & 022 H CTB

FS02	S	01.21.2021 10:05	4 ft	685783-044
FS01	S	01.21.2021 09:57	4 ft	685783-045

**CASE NARRATIVE****Client Name: WSP USA****Project Name: Columbus Federal 021 H & 022 H CTB**Project ID: 31402909.01
Work Order Number(s): 685783Report Date: 01.29.2021
Date Received: 01.22.2021**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3148799 Chloride by EPA 300

Lab Sample ID 685783-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 685783-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3149067 BTEX by EPA 8021B

Lab Sample ID 685783-040 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 685783-040, -041, -042, -043, -044, -045.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3149243 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7720106-1-BKS, 7720106-1-BLK, 7720106-1-BSD.

Batch: LBA-3149245 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 685783-021 S, 685783-021 SD.

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7720108-1-BLK.

Batch: LBA-3149366 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered below QC limits Data confirmed by re-analysis. Samples affected are: 7720230-1-BKS, 685827-041 S, 685827-041 SD.



CASE NARRATIVE

Client Name: WSP USA

Project Name: Columbus Federal 021 H & 022 H CTB

Project ID: 31402909.01
Work Order Number(s): 685783

Report Date: 01.29.2021
Date Received: 01.22.2021



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW09** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-001 Date Collected: 01.20.2021 13:57 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	80.4	10.1	mg/kg	01.22.2021 22:01		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.26.2021 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.26.2021 18:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.26.2021 18:41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.26.2021 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	01.26.2021 18:41	
o-Terphenyl	84-15-1	119	%	70-130	01.26.2021 18:41	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW09**
Lab Sample Id: 685783-001

Matrix: Soil
Date Collected: 01.20.2021 13:57

Date Received: 01.22.2021 13:45
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.2021 17:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.2021 17:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.2021 17:52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.25.2021 17:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.2021 17:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.2021 17:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.2021 17:52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	96	%	70-130	01.25.2021 17:52		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.25.2021 17:52		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **SW10** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-002 Date Collected: 01.20.2021 14:01 Sample Depth: 0 - 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.9	9.90	mg/kg	01.22.2021 22:18		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149243 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.26.2021 19:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.26.2021 19:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.26.2021 19:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.26.2021 19:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.26.2021 19:44	
o-Terphenyl	84-15-1	109	%	70-130	01.26.2021 19:44	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW10**
Lab Sample Id: 685783-002

Matrix: Soil
Date Collected: 01.20.2021 14:01

Date Received: 01.22.2021 13:45
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.2021 18:14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.2021 18:14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.2021 18:14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.25.2021 18:14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.2021 18:14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.2021 18:14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.2021 18:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.25.2021 18:14		
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.25.2021 18:14		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **SW11** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-003 Date Collected: 01.20.2021 14:07 Sample Depth: 0 - 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	244	9.90	mg/kg	01.22.2021 22:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149243 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.26.2021 20:05	
o-Terphenyl	84-15-1	112	%	70-130	01.26.2021 20:05	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW11**
Lab Sample Id: 685783-003

Matrix: Soil
Date Collected: 01.20.2021 14:07

Date Received: 01.22.2021 13:45
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.25.2021 18:36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.25.2021 18:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.25.2021 18:36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.25.2021 18:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.25.2021 18:36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.25.2021 18:36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.25.2021 18:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.25.2021 18:36	
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.25.2021 18:36	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW12** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-004 Date Collected: 01.20.2021 14:11 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.9	10.0	mg/kg	01.22.2021 22:30		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.26.2021 20:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.26.2021 20:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.26.2021 20:26	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.26.2021 20:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	01.26.2021 20:26	
o-Terphenyl	84-15-1	108	%	70-130	01.26.2021 20:26	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW12**
Lab Sample Id: 685783-004

Matrix: Soil
Date Collected: 01.20.2021 14:11

Date Received: 01.22.2021 13:45
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.2021 18:59	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.2021 18:59	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.2021 18:59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.25.2021 18:59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.2021 18:59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.2021 18:59	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.2021 18:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	94	%	70-130	01.25.2021 18:59	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.25.2021 18:59	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW13** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-005 Date Collected: 01.21.2021 09:49 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	42.4	9.96	mg/kg	01.22.2021 22:35		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.26.2021 20:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.26.2021 20:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.26.2021 20:48	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.26.2021 20:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	01.26.2021 20:48	
o-Terphenyl	84-15-1	116	%	70-130	01.26.2021 20:48	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW13**
Lab Sample Id: 685783-005

Matrix: Soil
Date Collected: 01.21.2021 09:49

Date Received: 01.22.2021 13:45
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.25.2021 19:21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.25.2021 19:21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.25.2021 19:21	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.25.2021 19:21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.25.2021 19:21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.25.2021 19:21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.25.2021 19:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.25.2021 19:21	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.25.2021 19:21	



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Sample Id: **SW14** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-006 Date Collected: 01.21.2021 09:53 Sample Depth: 0 - 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	242	9.94	mg/kg	01.22.2021 22:52		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149243 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	01.26.2021 21:09	
o-Terphenyl	84-15-1	111	%	70-130	01.26.2021 21:09	



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Sample Id: **SW14** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-006 Date Collected: 01.21.2021 09:53 Sample Depth: 0 - 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 15:20 % Moisture:
 Seq Number: 3149002 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.2021 19:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.2021 19:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.2021 19:44	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.25.2021 19:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.2021 19:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.2021 19:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.2021 19:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.25.2021 19:44		
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.25.2021 19:44		



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Sample Id: **SW24** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-007 Date Collected: 01.21.2021 10:27 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.1	9.98	mg/kg	01.22.2021 22:58		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.26.2021 21:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.26.2021 21:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.26.2021 21:31	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.26.2021 21:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.26.2021 21:31	
o-Terphenyl	84-15-1	115	%	70-130	01.26.2021 21:31	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW24**
Lab Sample Id: 685783-007

Matrix: Soil
Date Collected: 01.21.2021 10:27

Date Received: 01.22.2021 13:45
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.25.2021 20:06	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.25.2021 20:06	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.25.2021 20:06	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.25.2021 20:06	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.25.2021 20:06	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.25.2021 20:06	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.25.2021 20:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.25.2021 20:06		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.25.2021 20:06		



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Sample Id: **SW26** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-008 Date Collected: 01.21.2021 10:34 Sample Depth: 0 - 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	494	49.5	mg/kg	01.26.2021 18:08	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149243 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.26.2021 21:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.26.2021 21:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.26.2021 21:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.26.2021 21:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-130	01.26.2021 21:52	
o-Terphenyl	84-15-1	99	%	70-130	01.26.2021 21:52	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW26** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-008 Date Collected: 01.21.2021 10:34 Sample Depth: 0 - 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 15:20 % Moisture:
 Seq Number: 3149002 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.2021 20:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.2021 20:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.2021 20:28	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.25.2021 20:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.2021 20:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.2021 20:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.2021 20:28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.25.2021 20:28	
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.25.2021 20:28	



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Sample Id: **SW27** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-009 Date Collected: 01.21.2021 10:37 Sample Depth: 0 - 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	418	49.9	mg/kg	01.26.2021 18:14	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149243 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.26.2021 22:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.26.2021 22:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.26.2021 22:14	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.26.2021 22:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.26.2021 22:14	
o-Terphenyl	84-15-1	116	%	70-130	01.26.2021 22:14	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW27** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-009 Date Collected: 01.21.2021 10:37 Sample Depth: 0 - 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 15:20 % Moisture:
 Seq Number: 3149002 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.25.2021 20:51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.25.2021 20:51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.25.2021 20:51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.25.2021 20:51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.25.2021 20:51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.25.2021 20:51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.25.2021 20:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.25.2021 20:51		
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.25.2021 20:51		



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Sample Id: **SW29** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-010 Date Collected: 01.21.2021 10:42 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	218	10.1	mg/kg	01.22.2021 23:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.26.2021 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.26.2021 22:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.26.2021 22:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.26.2021 22:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.26.2021 22:35	
o-Terphenyl	84-15-1	107	%	70-130	01.26.2021 22:35	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **SW29** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-010 Date Collected: 01.21.2021 10:42 Sample Depth: 0 - 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 15:20 % Moisture:
 Seq Number: 3149002 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.25.2021 21:13	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.25.2021 21:13	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.25.2021 21:13	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.25.2021 21:13	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.25.2021 21:13	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.25.2021 21:13	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.25.2021 21:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.25.2021 21:13		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.25.2021 21:13		



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Sample Id: **FS37** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-011 Date Collected: 01.21.2021 11:44 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	817	98.8	mg/kg	01.25.2021 19:35	DX	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.26.2021 23:19	
o-Terphenyl	84-15-1	116	%	70-130	01.26.2021 23:19	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS37** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-011 Date Collected: 01.21.2021 11:44 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 15:20 % Moisture:
 Seq Number: 3149002 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.25.2021 22:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.25.2021 22:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.25.2021 22:33	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.25.2021 22:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.25.2021 22:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.25.2021 22:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.25.2021 22:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.25.2021 22:33		
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.25.2021 22:33		



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Sample Id: **FS36** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-012 Date Collected: 01.21.2021 11:47 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1640	101	mg/kg	01.25.2021 20:21	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.26.2021 23:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.26.2021 23:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.26.2021 23:41	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.26.2021 23:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-130	01.26.2021 23:41	
o-Terphenyl	84-15-1	105	%	70-130	01.26.2021 23:41	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS36**
Lab Sample Id: 685783-012

Matrix: Soil
Date Collected: 01.21.2021 11:47

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.2021 22:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.2021 22:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.2021 22:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.25.2021 22:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.2021 22:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.2021 22:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.2021 22:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.25.2021 22:55		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.25.2021 22:55		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS35** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-013 Date Collected: 01.21.2021 11:42 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1410	100	mg/kg	01.25.2021 20:27	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.27.2021 00:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.27.2021 00:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.27.2021 00:03	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.27.2021 00:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	01.27.2021 00:03	
o-Terphenyl	84-15-1	107	%	70-130	01.27.2021 00:03	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS35**
Lab Sample Id: 685783-013

Matrix: Soil
Date Collected: 01.21.2021 11:42

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.25.2021 23:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.25.2021 23:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.25.2021 23:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.25.2021 23:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.25.2021 23:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.25.2021 23:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.25.2021 23:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.25.2021 23:18	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.25.2021 23:18	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS34** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-014 Date Collected: 01.21.2021 11:43 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3790	201	mg/kg	01.26.2021 18:20	D	20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.27.2021 00:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.27.2021 00:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.27.2021 00:24	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.27.2021 00:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.27.2021 00:24	
o-Terphenyl	84-15-1	111	%	70-130	01.27.2021 00:24	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS34**
Lab Sample Id: 685783-014

Matrix: Soil
Date Collected: 01.21.2021 11:43

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.25.2021 23:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.25.2021 23:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.25.2021 23:40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.25.2021 23:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.25.2021 23:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.25.2021 23:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.25.2021 23:40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.25.2021 23:40		
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.25.2021 23:40		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **FS33** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-015 Date Collected: 01.21.2021 11:39 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3120	199	mg/kg	01.26.2021 18:25	D	20

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149243 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.27.2021 00:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.27.2021 00:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.27.2021 00:47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.27.2021 00:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	01.27.2021 00:47	
o-Terphenyl	84-15-1	115	%	70-130	01.27.2021 00:47	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS33**
Lab Sample Id: 685783-015

Matrix: Soil
Date Collected: 01.21.2021 11:39

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.26.2021 00:03	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.26.2021 00:03	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.26.2021 00:03	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.26.2021 00:03	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.26.2021 00:03	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.26.2021 00:03	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.26.2021 00:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.26.2021 00:03		
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.26.2021 00:03		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS32** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-016 Date Collected: 01.21.2021 11:41 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2250	99.4	mg/kg	01.25.2021 20:44	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.27.2021 01:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.27.2021 01:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.27.2021 01:09	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.27.2021 01:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-130	01.27.2021 01:09	
o-Terphenyl	84-15-1	108	%	70-130	01.27.2021 01:09	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS32**
Lab Sample Id: 685783-016

Matrix: Soil
Date Collected: 01.21.2021 11:41

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 00:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 00:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 00:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 00:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 00:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 00:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 00:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.26.2021 00:25	
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.26.2021 00:25	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS31** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-017 Date Collected: 01.21.2021 11:35 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2070	100	mg/kg	01.25.2021 20:49	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.27.2021 01:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.27.2021 01:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.27.2021 01:30	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.27.2021 01:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-130	01.27.2021 01:30	
o-Terphenyl	84-15-1	112	%	70-130	01.27.2021 01:30	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS31**
Lab Sample Id: 685783-017

Matrix: Soil
Date Collected: 01.21.2021 11:35

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 00:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 00:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 00:48	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 00:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 00:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 00:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 00:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.26.2021 00:48		
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.26.2021 00:48		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS30** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-018 Date Collected: 01.21.2021 11:38 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	550	100	mg/kg	01.25.2021 20:55	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.27.2021 01:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.27.2021 01:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.27.2021 01:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.27.2021 01:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	01.27.2021 01:53	
o-Terphenyl	84-15-1	106	%	70-130	01.27.2021 01:53	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS30** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-018 Date Collected: 01.21.2021 11:38 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 15:20 % Moisture:
 Seq Number: 3149002 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.26.2021 01:10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.26.2021 01:10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.26.2021 01:10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.26.2021 01:10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.26.2021 01:10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.26.2021 01:10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.26.2021 01:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.26.2021 01:10		
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.26.2021 01:10		



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Sample Id: **FS29** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-019 Date Collected: 01.21.2021 11:33 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	407	101	mg/kg	01.25.2021 21:01	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.27.2021 02:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.27.2021 02:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.27.2021 02:15	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.27.2021 02:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	01.27.2021 02:15	
o-Terphenyl	84-15-1	119	%	70-130	01.27.2021 02:15	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS29**
Lab Sample Id: 685783-019

Matrix: Soil
Date Collected: 01.21.2021 11:33

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.26.2021 01:33	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.26.2021 01:33	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.26.2021 01:33	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.26.2021 01:33	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.26.2021 01:33	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.26.2021 01:33	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.26.2021 01:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.26.2021 01:33		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.26.2021 01:33		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS28** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-020 Date Collected: 01.21.2021 11:34 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 17:19 % Moisture:
 Seq Number: 3148799 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.0	10.0	mg/kg	01.25.2021 21:06	D	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149243 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	01.27.2021 02:37	
o-Terphenyl	84-15-1	115	%	70-130	01.27.2021 02:37	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS28**
Lab Sample Id: 685783-020

Matrix: Soil
Date Collected: 01.21.2021 11:34

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 15:20

% Moisture:
Basis: Wet Weight

Seq Number: 3149002

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.26.2021 01:55	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.26.2021 01:55	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.26.2021 01:55	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.26.2021 01:55	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.26.2021 01:55	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.26.2021 01:55	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.26.2021 01:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.26.2021 01:55	
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.26.2021 01:55	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS27** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-021 Date Collected: 01.21.2021 11:30 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3640	100	mg/kg	01.25.2021 14:12		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.26.2021 18:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.26.2021 18:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.26.2021 18:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.26.2021 18:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.26.2021 18:41	
o-Terphenyl	84-15-1	93	%	70-130	01.26.2021 18:41	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS27**
Lab Sample Id: 685783-021

Matrix: Soil
Date Collected: 01.21.2021 11:30

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 05:36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 05:36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 05:36	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.26.2021 05:36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 05:36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 05:36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 05:36	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	01.26.2021 05:36		
1,4-Difluorobenzene	540-36-3	95	%	70-130	01.26.2021 05:36		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS26** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-022 Date Collected: 01.21.2021 11:41 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1520	100	mg/kg	01.25.2021 14:29		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.26.2021 19:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.26.2021 19:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.26.2021 19:44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.26.2021 19:44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	80	%	70-130	01.26.2021 19:44		
o-Terphenyl	84-15-1	93	%	70-130	01.26.2021 19:44		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS26**
Lab Sample Id: 685783-022

Matrix: Soil
Date Collected: 01.21.2021 11:41

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 06:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 06:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 06:05	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.26.2021 06:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 06:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 06:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 06:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	01.26.2021 06:05	
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.26.2021 06:05	



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Sample Id: **FS25** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-023 Date Collected: 01.21.2021 11:28 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	99.4	mg/kg	01.25.2021 14:35		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149245 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.26.2021 20:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	81	%	70-130	01.26.2021 20:05		
o-Terphenyl	84-15-1	95	%	70-130	01.26.2021 20:05		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS25**
Lab Sample Id: 685783-023

Matrix: Soil
Date Collected: 01.21.2021 11:28

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 06:28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 06:28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 06:28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 06:28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 06:28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 06:28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 06:28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.26.2021 06:28		
1,4-Difluorobenzene	540-36-3	108	%	70-130	01.26.2021 06:28		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS24** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-024 Date Collected: 01.21.2021 11:29 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1490	99.4	mg/kg	01.25.2021 14:40		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.26.2021 20:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.26.2021 20:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.26.2021 20:26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.26.2021 20:26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.26.2021 20:26	
o-Terphenyl	84-15-1	90	%	70-130	01.26.2021 20:26	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS24**
Lab Sample Id: 685783-024

Matrix: Soil
Date Collected: 01.21.2021 11:29

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.26.2021 06:50	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.26.2021 06:50	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.26.2021 06:50	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.26.2021 06:50	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.26.2021 06:50	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.26.2021 06:50	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.26.2021 06:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.26.2021 06:50	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.26.2021 06:50	



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WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **FS23** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-025 Date Collected: 01.21.2021 11:26 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2430	101	mg/kg	01.25.2021 14:46		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149245 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.26.2021 20:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.26.2021 20:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.26.2021 20:48	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.26.2021 20:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	80	%	70-130	01.26.2021 20:48		
o-Terphenyl	84-15-1	94	%	70-130	01.26.2021 20:48		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS23**
Lab Sample Id: 685783-025

Matrix: Soil
Date Collected: 01.21.2021 11:26

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 07:13	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 07:13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 07:13	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 07:13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 07:13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 07:13	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 07:13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.26.2021 07:13		
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.26.2021 07:13		



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Sample Id: **FS22** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-026 Date Collected: 01.21.2021 11:26 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	609	101	mg/kg	01.25.2021 15:03		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149245 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.26.2021 21:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	01.26.2021 21:09	
o-Terphenyl	84-15-1	94	%	70-130	01.26.2021 21:09	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS22**
Lab Sample Id: 685783-026

Matrix: Soil
Date Collected: 01.21.2021 11:26

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 07:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 07:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 07:35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.26.2021 07:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 07:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 07:35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 07:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.26.2021 07:35		
1,4-Difluorobenzene	540-36-3	96	%	70-130	01.26.2021 07:35		



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WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **FS21** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-027 Date Collected: 01.21.2021 11:25 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3820	99.0	mg/kg	01.25.2021 15:09		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149245 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.26.2021 21:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.26.2021 21:31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.26.2021 21:31	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.26.2021 21:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.26.2021 21:31	
o-Terphenyl	84-15-1	94	%	70-130	01.26.2021 21:31	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS21**
Lab Sample Id: 685783-027

Matrix: Soil
Date Collected: 01.21.2021 11:25

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 07:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 07:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 07:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 07:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 07:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 07:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 07:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.26.2021 07:58		
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.26.2021 07:58		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS20** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-028 Date Collected: 01.21.2021 11:24 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	872	101	mg/kg	01.25.2021 15:14		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	01.26.2021 21:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	01.26.2021 21:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.26.2021 21:52	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.26.2021 21:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	01.26.2021 21:52	
o-Terphenyl	84-15-1	93	%	70-130	01.26.2021 21:52	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS20**
Lab Sample Id: 685783-028

Matrix: Soil
Date Collected: 01.21.2021 11:24

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.26.2021 08:20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.26.2021 08:20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.26.2021 08:20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.26.2021 08:20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.26.2021 08:20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.26.2021 08:20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.26.2021 08:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.26.2021 08:20	
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.26.2021 08:20	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **FS17** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-029 Date Collected: 01.21.2021 11:17 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3630	99.6	mg/kg	01.25.2021 15:20		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149245 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.26.2021 22:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.26.2021 22:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.26.2021 22:14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.26.2021 22:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	01.26.2021 22:14	
o-Terphenyl	84-15-1	96	%	70-130	01.26.2021 22:14	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS17**
Lab Sample Id: 685783-029

Matrix: Soil
Date Collected: 01.21.2021 11:17

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.26.2021 09:27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.26.2021 09:27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.26.2021 09:27	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.26.2021 09:27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.26.2021 09:27	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.26.2021 09:27	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.26.2021 09:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.26.2021 09:27		
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.26.2021 09:27		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS16** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-030 Date Collected: 01.21.2021 11:14 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	854	100	mg/kg	01.25.2021 15:26		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.26.2021 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.26.2021 22:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.26.2021 22:35	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.26.2021 22:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	01.26.2021 22:35	
o-Terphenyl	84-15-1	88	%	70-130	01.26.2021 22:35	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS16**
Lab Sample Id: 685783-030

Matrix: Soil
Date Collected: 01.21.2021 11:14

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 09:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 09:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 09:50	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 09:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 09:50	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 09:50	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 09:50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.26.2021 09:50		
1,4-Difluorobenzene	540-36-3	105	%	70-130	01.26.2021 09:50		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS15** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-031 Date Collected: 01.21.2021 11:15 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	817	100	mg/kg	01.25.2021 15:31		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.26.2021 23:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	01.26.2021 23:19	
o-Terphenyl	84-15-1	93	%	70-130	01.26.2021 23:19	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS15**
Lab Sample Id: 685783-031

Matrix: Soil
Date Collected: 01.21.2021 11:15

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.26.2021 10:18	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.26.2021 10:18	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.26.2021 10:18	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.26.2021 10:18	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.26.2021 10:18	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.26.2021 10:18	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.26.2021 10:18	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	01.26.2021 10:18		
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.26.2021 10:18		



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS14** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-032 Date Collected: 01.21.2021 11:13 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1630	99.8	mg/kg	01.25.2021 15:48		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.26.2021 23:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.26.2021 23:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.26.2021 23:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.26.2021 23:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	01.26.2021 23:41	
o-Terphenyl	84-15-1	93	%	70-130	01.26.2021 23:41	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS14** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-032 Date Collected: 01.21.2021 11:13 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 16:22 % Moisture:
 Seq Number: 3149003 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 10:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 10:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 10:47	U	1
m,p-Xylenes	179601-23-1	0.00430	0.00401	mg/kg	01.26.2021 10:47		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 10:47	U	1
Total Xylenes	1330-20-7	0.00430	0.00200	mg/kg	01.26.2021 10:47		1
Total BTEX		0.00430	0.00200	mg/kg	01.26.2021 10:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.26.2021 10:47	
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.26.2021 10:47	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS13** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-033 Date Collected: 01.21.2021 11:10 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1430	99.8	mg/kg	01.25.2021 15:54		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.27.2021 00:03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.27.2021 00:03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.27.2021 00:03	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.27.2021 00:03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	01.27.2021 00:03	
o-Terphenyl	84-15-1	89	%	70-130	01.27.2021 00:03	



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WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS13** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-033 Date Collected: 01.21.2021 11:10 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 16:22 % Moisture:
 Seq Number: 3149003 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.26.2021 11:10	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.26.2021 11:10	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.26.2021 11:10	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.26.2021 11:10	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.26.2021 11:10	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.26.2021 11:10	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.26.2021 11:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	01.26.2021 11:10		
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.26.2021 11:10		



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WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **FS12** Matrix: Soil Date Received: 01.22.2021 13:45
Lab Sample Id: 685783-034 Date Collected: 01.21.2021 11:07 Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MAB
Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3460	99.2	mg/kg	01.25.2021 16:11		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
Tech: DVM
Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
Seq Number: 3149245 Basis: Wet Weight
SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.27.2021 00:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 00:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 00:24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.27.2021 00:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	75	%	70-130	01.27.2021 00:24		
o-Terphenyl	84-15-1	87	%	70-130	01.27.2021 00:24		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS12**
Lab Sample Id: 685783-034

Matrix: Soil
Date Collected: 01.21.2021 11:07

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 11:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 11:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 11:32	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.26.2021 11:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 11:32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 11:32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 11:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.26.2021 11:32		
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.26.2021 11:32		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS11** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-035 Date Collected: 01.21.2021 11:05 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3460	99.6	mg/kg	01.25.2021 16:17		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.27.2021 00:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 00:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 00:47	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.27.2021 00:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	72	%	70-130	01.27.2021 00:47	
o-Terphenyl	84-15-1	84	%	70-130	01.27.2021 00:47	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS11**
Lab Sample Id: 685783-035

Matrix: Soil
Date Collected: 01.21.2021 11:05

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 11:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 11:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 11:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 11:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 11:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 11:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 11:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.26.2021 11:55		
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.26.2021 11:55		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS10** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-036 Date Collected: 01.21.2021 10:53 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2320	99.8	mg/kg	01.25.2021 16:22		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	61.3	50.0	mg/kg	01.27.2021 01:09		1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 01:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 01:09	U	1
Total TPH	PHC635	61.3	50.0	mg/kg	01.27.2021 01:09		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	87	%	70-130	01.27.2021 01:09		
o-Terphenyl	84-15-1	104	%	70-130	01.27.2021 01:09		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS10** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-036 Date Collected: 01.21.2021 10:53 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 16:22 % Moisture:
 Seq Number: 3149003 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 12:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 12:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 12:17	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 12:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 12:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 12:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 12:17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.26.2021 12:17		
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.26.2021 12:17		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS09** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-037 Date Collected: 01.21.2021 10:47 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2050	99.6	mg/kg	01.25.2021 16:28		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.27.2021 01:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 01:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 01:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.27.2021 01:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-130	01.27.2021 01:30	
o-Terphenyl	84-15-1	87	%	70-130	01.27.2021 01:30	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS09**
Lab Sample Id: 685783-037

Matrix: Soil
Date Collected: 01.21.2021 10:47

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.25.2021 16:22

% Moisture:
Basis: Wet Weight

Seq Number: 3149003

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.000179	0.000179	mg/kg	01.26.2021 12:39	U	1
Toluene	108-88-3	<0.000179	0.000179	mg/kg	01.26.2021 12:39	U	1
Ethylbenzene	100-41-4	<0.000179	0.000179	mg/kg	01.26.2021 12:39	U	1
m,p-Xylenes	179601-23-1	<0.000357	0.000357	mg/kg	01.26.2021 12:39	U	1
o-Xylene	95-47-6	<0.000179	0.000179	mg/kg	01.26.2021 12:39	U	1
Total Xylenes	1330-20-7	<0.000179	0.000179	mg/kg	01.26.2021 12:39	U	1
Total BTEX		<0.000179	0.000179	mg/kg	01.26.2021 12:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.26.2021 12:39		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.26.2021 12:39		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX
Columbus Federal 021 H & 022 H CTB

Sample Id: **FS08** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-038 Date Collected: 01.21.2021 10:42 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	561	100	mg/kg	01.25.2021 16:34		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	01.27.2021 01:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	01.27.2021 01:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.27.2021 01:53	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.27.2021 01:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-130	01.27.2021 01:53	
o-Terphenyl	84-15-1	84	%	70-130	01.27.2021 01:53	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS08** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-038 Date Collected: 01.21.2021 10:42 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 16:22 % Moisture:
 Seq Number: 3149003 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 13:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.26.2021 13:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 13:02	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.26.2021 13:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 13:02	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 13:02	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.26.2021 13:02	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.26.2021 13:02		
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.26.2021 13:02		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS07** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-039 Date Collected: 01.21.2021 10:36 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	403	99.0	mg/kg	01.25.2021 16:39		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.27.2021 02:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.27.2021 02:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.27.2021 02:15	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.27.2021 02:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	71	%	70-130	01.27.2021 02:15	
o-Terphenyl	84-15-1	81	%	70-130	01.27.2021 02:15	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS07** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-039 Date Collected: 01.21.2021 10:36 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 16:22 % Moisture:
 Seq Number: 3149003 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.26.2021 13:24	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.26.2021 13:24	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.26.2021 13:24	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.26.2021 13:24	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.26.2021 13:24	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.26.2021 13:24	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.26.2021 13:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.26.2021 13:24		
4-Bromofluorobenzene	460-00-4	102	%	70-130	01.26.2021 13:24		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS06** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-040 Date Collected: 01.21.2021 10:30 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.25.2021 09:22 % Moisture:
 Seq Number: 3148914 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	189	49.9	mg/kg	01.25.2021 16:45		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.26.2021 12:00 % Moisture:
 Seq Number: 3149245 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.27.2021 02:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	01.27.2021 02:37	
o-Terphenyl	84-15-1	89	%	70-130	01.27.2021 02:37	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS06** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-040 Date Collected: 01.21.2021 10:30 Sample Depth: 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.26.2021 16:00 % Moisture:
 Seq Number: 3149067 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.26.2021 20:04	U	1
Toluene	108-88-3	0.00372	0.00200	mg/kg	01.26.2021 20:04	X	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.26.2021 20:04	UX	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.26.2021 20:04	UX	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.26.2021 20:04	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.26.2021 20:04	U	1
Total BTEX		0.00372	0.00200	mg/kg	01.26.2021 20:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.26.2021 20:04	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.26.2021 20:04	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS05** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-041 Date Collected: 01.21.2021 10:22 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 12:25 % Moisture:
 Seq Number: 3148800 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3080	50.2	mg/kg	01.23.2021 01:08		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.27.2021 12:00 % Moisture:
 Seq Number: 3149366 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.27.2021 15:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 15:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 15:15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.27.2021 15:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	01.27.2021 15:15	
o-Terphenyl	84-15-1	94	%	70-130	01.27.2021 15:15	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS05**
Lab Sample Id: 685783-041

Matrix: Soil
Date Collected: 01.21.2021 10:22

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.26.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149067

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.26.2021 20:27	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.26.2021 20:27	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.26.2021 20:27	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.26.2021 20:27	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.26.2021 20:27	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.26.2021 20:27	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.26.2021 20:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.26.2021 20:27		
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.26.2021 20:27		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS04** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-042 Date Collected: 01.21.2021 10:17 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 12:25 % Moisture:
 Seq Number: 3148800 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2930	101	mg/kg	01.25.2021 21:40		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.27.2021 12:00 % Moisture:
 Seq Number: 3149366 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.27.2021 17:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 17:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 17:22	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.27.2021 17:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.27.2021 17:22	
o-Terphenyl	84-15-1	95	%	70-130	01.27.2021 17:22	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS04**
Lab Sample Id: 685783-042

Matrix: Soil
Date Collected: 01.21.2021 10:17

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.26.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149067

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.26.2021 20:49	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.26.2021 20:49	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.26.2021 20:49	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.26.2021 20:49	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.26.2021 20:49	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.26.2021 20:49	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.26.2021 20:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.26.2021 20:49		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.26.2021 20:49		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS03** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-043 Date Collected: 01.21.2021 10:09 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 12:25 % Moisture:
 Seq Number: 3148800 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1320	99.0	mg/kg	01.25.2021 21:46		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.27.2021 12:00 % Moisture:
 Seq Number: 3149366 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.27.2021 17:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 17:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 17:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.27.2021 17:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	01.27.2021 17:43	
o-Terphenyl	84-15-1	91	%	70-130	01.27.2021 17:43	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS03**
Lab Sample Id: 685783-043

Matrix: Soil
Date Collected: 01.21.2021 10:09

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.26.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149067

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.26.2021 21:12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.26.2021 21:12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.26.2021 21:12	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.26.2021 21:12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.26.2021 21:12	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.26.2021 21:12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.26.2021 21:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.26.2021 21:12		
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.26.2021 21:12		



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS02** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-044 Date Collected: 01.21.2021 10:05 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 12:25 % Moisture:
 Seq Number: 3148800 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1830	99.0	mg/kg	01.25.2021 21:52		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.27.2021 12:00 % Moisture:
 Seq Number: 3149366 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	01.27.2021 18:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	01.27.2021 18:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.27.2021 18:04	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.27.2021 18:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	01.27.2021 18:04	
o-Terphenyl	84-15-1	96	%	70-130	01.27.2021 18:04	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS02**
Lab Sample Id: 685783-044

Matrix: Soil
Date Collected: 01.21.2021 10:05

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.26.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149067

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.26.2021 21:34	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.26.2021 21:34	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.26.2021 21:34	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	01.26.2021 21:34	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.26.2021 21:34	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.26.2021 21:34	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.26.2021 21:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.26.2021 21:34	
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.26.2021 21:34	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS01** Matrix: Soil Date Received: 01.22.2021 13:45
 Lab Sample Id: 685783-045 Date Collected: 01.21.2021 09:57 Sample Depth: 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.22.2021 12:25 % Moisture:
 Seq Number: 3148800 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1440	99.0	mg/kg	01.25.2021 21:57		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 01.27.2021 12:00 % Moisture:
 Seq Number: 3149366 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	01.27.2021 18:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	01.27.2021 18:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.27.2021 18:46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.27.2021 18:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	01.27.2021 18:46	
o-Terphenyl	84-15-1	94	%	70-130	01.27.2021 18:46	



Certificate of Analytical Results 685783

WSP USA, Dallas, TX Columbus Federal 021 H & 022 H CTB

Sample Id: **FS01**
Lab Sample Id: 685783-045

Matrix: Soil
Date Collected: 01.21.2021 09:57

Date Received: 01.22.2021 13:45
Sample Depth: 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.26.2021 16:00

% Moisture:
Basis: Wet Weight

Seq Number: 3149067

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.26.2021 21:56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.26.2021 21:56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.26.2021 21:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.26.2021 21:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.26.2021 21:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.26.2021 21:56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.26.2021 21:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.26.2021 21:56	
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.26.2021 21:56	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



WSP USA

Columbus Federal 021 H & 022 H CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3148800

MB Sample Id: 7719911-1-BLK

Matrix: Solid

LCS Sample Id: 7719911-1-BKS

Prep Method: E300P

Date Prep: 01.22.2021

LCSD Sample Id: 7719911-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	215	108	212	106	90-110	1	20	mg/kg	01.23.2021 00:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3148799

MB Sample Id: 7719908-1-BLK

Matrix: Solid

LCS Sample Id: 7719908-1-BKS

Prep Method: E300P

Date Prep: 01.22.2021

LCSD Sample Id: 7719908-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	215	108	212	106	90-110	1	20	mg/kg	01.22.2021 21:50	

Analytical Method: Chloride by EPA 300

Seq Number: 3148914

MB Sample Id: 7719910-1-BLK

Matrix: Solid

LCS Sample Id: 7719910-1-BKS

Prep Method: E300P

Date Prep: 01.25.2021

LCSD Sample Id: 7719910-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	216	108	213	107	90-110	1	20	mg/kg	01.25.2021 14:01	

Analytical Method: Chloride by EPA 300

Seq Number: 3148800

Parent Sample Id: 685783-041

Matrix: Soil

MS Sample Id: 685783-041 S

Prep Method: E300P

Date Prep: 01.22.2021

MSD Sample Id: 685783-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3080	201	3260	90	3280	100	90-110	1	20	mg/kg	01.23.2021 01:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3148800

Parent Sample Id: 685808-008

Matrix: Soil

MS Sample Id: 685808-008 S

Prep Method: E300P

Date Prep: 01.22.2021

MSD Sample Id: 685808-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	568	200	779	106	779	106	90-110	0	20	mg/kg	01.23.2021 02:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3148799

Parent Sample Id: 685783-001

Matrix: Soil

MS Sample Id: 685783-001 S

Prep Method: E300P

Date Prep: 01.22.2021

MSD Sample Id: 685783-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	80.4	200	296	108	295	107	90-110	0	20	mg/kg	01.22.2021 22:07	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



WSP USA
Columbus Federal 021 H & 022 H CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3148799

Parent Sample Id: 685783-011

Matrix: Soil

MS Sample Id: 685783-011 S

Prep Method: E300P

Date Prep: 01.22.2021

MSD Sample Id: 685783-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	817	254	1030	84	1050	93	90-110	2	20	mg/kg	01.25.2021 19:41	X

Analytical Method: Chloride by EPA 300

Seq Number: 3148914

Parent Sample Id: 685783-021

Matrix: Soil

MS Sample Id: 685783-021 S

Prep Method: E300P

Date Prep: 01.25.2021

MSD Sample Id: 685783-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3640	201	3860	109	3840	101	90-110	1	20	mg/kg	01.25.2021 14:18	

Analytical Method: Chloride by EPA 300

Seq Number: 3148914

Parent Sample Id: 685783-031

Matrix: Soil

MS Sample Id: 685783-031 S

Prep Method: E300P

Date Prep: 01.25.2021

MSD Sample Id: 685783-031 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	817	200	1030	107	1030	108	90-110	0	20	mg/kg	01.25.2021 15:37	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149243

MB Sample Id: 7720106-1-BLK

Matrix: Solid

LCS Sample Id: 7720106-1-BKS

Prep Method: SW8015P

Date Prep: 01.26.2021

LCSD Sample Id: 7720106-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1010	101	960	96	70-130	5	20	mg/kg	01.26.2021 17:59	
Diesel Range Organics (DRO)	<50.0	1000	1010	101	1010	101	70-130	0	20	mg/kg	01.26.2021 17:59	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		115		102		70-130	%	01.26.2021 17:59
o-Terphenyl	153	**	138	**	138	**	70-130	%	01.26.2021 17:59

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149245

MB Sample Id: 7720108-1-BLK

Matrix: Solid

LCS Sample Id: 7720108-1-BKS

Prep Method: SW8015P

Date Prep: 01.26.2021

LCSD Sample Id: 7720108-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	820	82	882	88	70-130	7	20	mg/kg	01.26.2021 17:59	
Diesel Range Organics (DRO)	<50.0	1000	939	94	1050	105	70-130	11	20	mg/kg	01.26.2021 17:59	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		108		120		70-130	%	01.26.2021 17:59
o-Terphenyl	137	**	107		120		70-130	%	01.26.2021 17:59

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



WSP USA
Columbus Federal 021 H & 022 H CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149366

MB Sample Id: 7720230-1-BLK

Matrix: Solid

LCS Sample Id: 7720230-1-BKS

Prep Method: SW8015P

Date Prep: 01.27.2021

LCSD Sample Id: 7720230-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	882	88	888	89	70-130	1	20	mg/kg	01.27.2021 13:28	
Diesel Range Organics (DRO)	<50.0	1000	953	95	883	88	70-130	8	20	mg/kg	01.27.2021 13:28	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane	98		4	**	93		70-130	%	01.27.2021 13:28			
o-Terphenyl	117		99		99		70-130	%	01.27.2021 13:28			

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149243

Matrix: Solid

MB Sample Id: 7720106-1-BLK

Prep Method: SW8015P

Date Prep: 01.26.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.26.2021 17:38	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149245

Matrix: Solid

MB Sample Id: 7720108-1-BLK

Prep Method: SW8015P

Date Prep: 01.26.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.26.2021 17:38	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149366

Matrix: Solid

MB Sample Id: 7720230-1-BLK

Prep Method: SW8015P

Date Prep: 01.27.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.27.2021 13:07	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149243

Matrix: Soil

Parent Sample Id: 685783-001

MS Sample Id: 685783-001 S

Prep Method: SW8015P

Date Prep: 01.26.2021

MSD Sample Id: 685783-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	999	938	94	919	92	70-130	2	20	mg/kg	01.26.2021 19:02	
Diesel Range Organics (DRO)	<50.0	999	930	93	939	94	70-130	1	20	mg/kg	01.26.2021 19:02	
Surrogate			MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date			
1-Chlorooctane			95		86		70-130	%	01.26.2021 19:02			
o-Terphenyl			108		109		70-130	%	01.26.2021 19:02			

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: TPH by SW8015 Mod

Seq Number: 3149245

Parent Sample Id: 685783-021

Matrix: Soil

MS Sample Id: 685783-021 S

Prep Method: SW8015P

Date Prep: 01.26.2021

MSD Sample Id: 685783-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	766	77	774	77	70-130	1	20	mg/kg	01.26.2021 19:02	
Diesel Range Organics (DRO)	<50.1	1000	983	98	1010	100	70-130	3	20	mg/kg	01.26.2021 19:02	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	4	**	4	**	70-130	%	01.26.2021 19:02
o-Terphenyl	83		84		70-130	%	01.26.2021 19:02

Analytical Method: TPH by SW8015 Mod

Seq Number: 3149366

Parent Sample Id: 685827-041

Matrix: Soil

MS Sample Id: 685827-041 S

Prep Method: SW8015P

Date Prep: 01.27.2021

MSD Sample Id: 685827-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	874	88	873	88	70-130	0	20	mg/kg	01.27.2021 14:33	
Diesel Range Organics (DRO)	<49.9	997	915	92	926	93	70-130	1	20	mg/kg	01.27.2021 14:33	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	4	**	4	**	70-130	%	01.27.2021 14:33
o-Terphenyl	88		91		70-130	%	01.27.2021 14:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149002

MB Sample Id: 7719957-1-BLK

Matrix: Solid

LCS Sample Id: 7719957-1-BKS

Prep Method: SW5035A

Date Prep: 01.25.2021

LCSD Sample Id: 7719957-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.100	100	0.0999	100	70-130	0	35	mg/kg	01.25.2021 15:47	
Toluene	<0.00200	0.100	0.0989	99	0.0981	98	70-130	1	35	mg/kg	01.25.2021 15:47	
Ethylbenzene	<0.00200	0.100	0.0972	97	0.0973	97	71-129	0	35	mg/kg	01.25.2021 15:47	
m,p-Xylenes	<0.00400	0.200	0.195	98	0.195	98	70-135	0	35	mg/kg	01.25.2021 15:47	
o-Xylene	<0.00200	0.100	0.0994	99	0.101	101	71-133	2	35	mg/kg	01.25.2021 15:47	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		94		100		70-130	%	01.25.2021 15:47
4-Bromofluorobenzene	113		99		100		70-130	%	01.25.2021 15:47

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: BTEX by EPA 8021B

Seq Number: 3149003

Matrix: Solid

Prep Method: SW5035A

Date Prep: 01.25.2021

MB Sample Id: 7719958-1-BLK

LCS Sample Id: 7719958-1-BKS

LCSD Sample Id: 7719958-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.101	101	0.0983	98	70-130	3	35	mg/kg	01.26.2021 03:38	
Toluene	<0.00200	0.100	0.0996	100	0.0972	97	70-130	2	35	mg/kg	01.26.2021 03:38	
Ethylbenzene	<0.00200	0.100	0.101	101	0.0981	98	71-129	3	35	mg/kg	01.26.2021 03:38	
m,p-Xylenes	<0.00400	0.200	0.202	101	0.197	99	70-135	3	35	mg/kg	01.26.2021 03:38	
o-Xylene	<0.00200	0.100	0.100	100	0.103	103	71-133	3	35	mg/kg	01.26.2021 03:38	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		100		70-130	%	01.26.2021 03:38
4-Bromofluorobenzene	109		98		101		70-130	%	01.26.2021 03:38

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149067

Matrix: Solid

Prep Method: SW5035A

Date Prep: 01.26.2021

MB Sample Id: 7720055-1-BLK

LCS Sample Id: 7720055-1-BKS

LCSD Sample Id: 7720055-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.102	102	0.0985	99	70-130	3	35	mg/kg	01.26.2021 18:00	
Toluene	<0.00200	0.100	0.103	103	0.0969	97	70-130	6	35	mg/kg	01.26.2021 18:00	
Ethylbenzene	<0.00200	0.100	0.105	105	0.0964	96	71-129	9	35	mg/kg	01.26.2021 18:00	
m,p-Xylenes	<0.00400	0.200	0.208	104	0.193	97	70-135	7	35	mg/kg	01.26.2021 18:00	
o-Xylene	<0.00200	0.100	0.104	104	0.0977	98	71-133	6	35	mg/kg	01.26.2021 18:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		101		96		70-130	%	01.26.2021 18:00
4-Bromofluorobenzene	104		103		97		70-130	%	01.26.2021 18:00

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149002

Matrix: Soil

Prep Method: SW5035A

Date Prep: 01.25.2021

Parent Sample Id: 685783-001

MS Sample Id: 685783-001 S

MSD Sample Id: 685783-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0939	94	0.0970	97	70-130	3	35	mg/kg	01.25.2021 16:32	
Toluene	<0.00200	0.0998	0.0922	92	0.100	100	70-130	8	35	mg/kg	01.25.2021 16:32	
Ethylbenzene	<0.00200	0.0998	0.0942	94	0.100	100	71-129	6	35	mg/kg	01.25.2021 16:32	
m,p-Xylenes	<0.00399	0.200	0.186	93	0.206	103	70-135	10	35	mg/kg	01.25.2021 16:32	
o-Xylene	<0.00200	0.0998	0.0946	95	0.101	101	71-133	7	35	mg/kg	01.25.2021 16:32	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		98		70-130	%	01.25.2021 16:32
4-Bromofluorobenzene	104		101		70-130	%	01.25.2021 16:32

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Analytical Method: BTEX by EPA 8021B

Seq Number: 3149003

Parent Sample Id: 685783-021

Matrix: Soil

MS Sample Id: 685783-021 S

Prep Method: SW5035A

Date Prep: 01.25.2021

MSD Sample Id: 685783-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0971	96	0.0864	86	70-130	12	35	mg/kg	01.26.2021 04:23	
Toluene	<0.00202	0.101	0.102	101	0.0856	85	70-130	17	35	mg/kg	01.26.2021 04:23	
Ethylbenzene	<0.00202	0.101	0.0956	95	0.0743	74	71-129	25	35	mg/kg	01.26.2021 04:23	
m,p-Xylenes	<0.00403	0.202	0.198	98	0.150	75	70-135	28	35	mg/kg	01.26.2021 04:23	
o-Xylene	<0.00202	0.101	0.103	102	0.0796	79	71-133	26	35	mg/kg	01.26.2021 04:23	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		93		70-130	%	01.26.2021 04:23
4-Bromofluorobenzene	102		100		70-130	%	01.26.2021 04:23

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149067

Parent Sample Id: 685783-040

Matrix: Soil

MS Sample Id: 685783-040 S

Prep Method: SW5035A

Date Prep: 01.26.2021

MSD Sample Id: 685783-040 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0877	87	0.0779	78	70-130	12	35	mg/kg	01.26.2021 18:45	
Toluene	0.00372	0.101	0.0873	83	0.0730	69	70-130	18	35	mg/kg	01.26.2021 18:45	X
Ethylbenzene	<0.00201	0.101	0.0842	83	0.0678	68	71-129	22	35	mg/kg	01.26.2021 18:45	X
m,p-Xylenes	<0.00402	0.201	0.171	85	0.131	66	70-135	26	35	mg/kg	01.26.2021 18:45	X
o-Xylene	<0.00201	0.101	0.0895	89	0.0677	68	71-133	28	35	mg/kg	01.26.2021 18:45	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	92		97		70-130	%	01.26.2021 18:45
4-Bromofluorobenzene	98		100		70-130	%	01.26.2021 18:45

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



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Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 281-7550
Hobbs, NM (575-382-7550)

Chain of Custody

Work Order No: 685783

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

Work Order Comments			
Program: UST/PST	☐ RP	☐ Growfields	☐ RC \$perfund
State of Project:			
Reporting Level II	☐ Level III	☐ P/T/UST	☐ RP ☐ Level IV
Deliverables: EDD	☐	ADAPT	☐ Other:

[illegible][illegible]

Total 200.7 / 6010		200.8 / 6020:	
Circle Method(s) and Metal(s) to be analyzed			
8RCRA	13PPM	1exas 11	Al Sb As Ba Be B Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
TCLP / SPLP 6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7471 : Hg

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[illegible]



Chain of Custody

Work Order No: 10855783

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Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavaraz
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, itavaraz@concho.com
Project Name:	Columbus Federal 021H & 022H CTB	Turn Around	
Project Number:	31402909.01	Routine	☒
P.O. Number:	Lee	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT		Temp Blank:	Yes	No	Well Ice:	Yes	No
Temperature (°C):		Thermometer ID					
Received Intact:	Yes	No	See Back				
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	ANALYSIS REQUEST										Work Order Notes
					Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)							
FS37	S	1/21/2021	11:44	4'	1	X	X	X							Composite
FS36	S	1/21/2021	11:47	4'	1	X	X	X							Composite
FS35	S	1/21/2021	11:42	4'	1	X	X	X							Composite
FS34	S	1/21/2021	11:43	4'	1	X	X	X							Composite
FS33	S	1/21/2021	11:39	4'	1	X	X	X							Composite
FS32	S	1/21/2021	11:41	4'	1	X	X	X							Composite
FS31	S	1/21/2021	11:35	4'	1	X	X	X							Composite
FS30	S	1/21/2021	11:38	4'	1	X	X	X							Composite
FS29	S	1/21/2021	11:33	4'	1	X	X	X							Composite
FS28	S	1/21/2021	11:34	4'	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 Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	1-22-21 1345			



Chain of Custody

Work Order No: 685783

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Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavaraz
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, itavaraz@concho.com

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

Project Name:	Columbus Federal 021H & 022H CTB	Turn Around	☒
Project Number:	31402909.01	Routine	☒
P.O. Number:	Lea	Rush:	
Sampler's Name:	William Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):		Thermometer ID				
Received In tact:	Yes	No	See Tag			
Cooler Custody Seals:	Yes	No	N/A	Correction Factor:		
Sample Custody Seals:	Yes	No	N/A	Total Containers:		

8:45 AM

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8015)	Chloride (EPA 8015)	Sample Comments															
FS27					S	1/21/2021	11:30	4'	1	X	X	X	Composite															
FS26					S	1/21/2021	11:41	4'	1	X	X	X	Composite															
FS25					S	1/21/2021	11:28	4'	1	X	X	X	Composite															
FS24					S	1/21/2021	11:29	4'	1	X	X	X	Composite															
FS23					S	1/21/2021	11:26	4'	1	X	X	X	Composite															
FS22					S	1/21/2021	11:26	4'	1	X	X	X	Composite															
FS21					S	1/21/2021	11:25	4'	1	X	X	X	Composite															
FS20					S	1/21/2021	11:24	4'	1	X	X	X	Composite															
FS17					S	1/21/2021	11:17	4'	1	X	X	X	Composite															
FS16					S	1/21/2021	11:14	4'	1	X	X	X	Composite															
Total 200.7 / 6010					200.8 / 6020:					APCDA 122PM T-10014 21.01.21																		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	1-22-21 1345 ²			



Chain of Custody

Work Order No: 1685783

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Hobbs, NM (575-392-7550) Phoenix, AZ (480-555-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavaraz
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, itavaraz@concho.com
Project Name:	Columbus Federal 021H & 022H CTB	Turn Around	
Project Number:	31402909.01	Routine	☒
P.O. Number:	Lea	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	See Page 1					
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	ANALYSIS REQUEST																Work Order Notes	
FS15	S	1/21/2021	11:15	4'	1	X	X	X	X													
FS14	S	1/21/2021	11:13	4'	1	X	X	X	X													Composite
FS13	S	1/21/2021	11:10	4'	1	X	X	X	X													Composite
FS12	S	1/21/2021	11:07	4'	1	X	X	X	X													Composite
FS11	S	1/21/2021	11:05	4'	1	X	X	X	X													Composite
FS10	S	1/21/2021	10:53	4'	1	X	X	X	X													Composite
FS09	S	1/21/2021	10:47	4'	1	X	X	X	X													Composite
FS08	S	1/21/2021	10:42	4'	1	X	X	X	X													Composite
FS07	S	1/21/2021	10:36	4'	1	X	X	X	X													Composite
FS06	S	1/21/2021	10:30	4'	1	X	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 Ti Sn U V Zn
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 1-22-21 1345

Relinquished by: (Signature) [Signature] Received by: (Signature) [Signature] Date/Time 1-22-21 1345



Work Order No. 655783

Hobbs, NM (575-392-7550) Phoenix AZ (480-355-0909) Wichita KS (781-444-4444)

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Work Order Comments									
Program: UST/PST		☐ RP	☐ Growfields	☐ RC	☐ \$ perFund				
State of Project:									
Reporting Level II		☐ Level III	☐ PT/UST	☐ RP	☐ Level IV				
Deliverables: EDD		☐	Adapt	☐	Other:				

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

Work Order Comments	
Program: UST/PST ☐ RP ☐ Growfields ☐ RC ☐ \$/perfund ☐ State of Project: Reporting Level: II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐ Deliverables: EDD ☐ ADaPT ☐ Other: ☐	Work Order Notes

Work Order Comments	
Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ \$/perfund ☐ State of Project: Reporting Level: ☐ I ☐ Level II ☐ Level III ☐ ST/UST ☐ RP ☐ Level IV ☐ Deliverables: ☐ EDD ☐ ADaPT ☐ Other:	ST Work Order Notes
TAT starts the day received by the	

[illegible]

Conc.	200.1 / 15010	200.8 / 16020:	
Circle Method(s) and Metal(s) to be analyzed	8RCRA	13PPM	Texas 11
	Al	Sb	As
	Ba	Be	B
	Cd	Cr	Co
	Cu	Fe	Pb
	Mn	Mo	Ni
	K	Se	Ag
	SiO2	Na	Sr
	Ti	Sn	U
	V	Zn	
TCLP / SPLP 6010:	8RCRA	Sb	As
	Ba	Be	B
	Cd	Cr	Co
	Cu	Pb	Mn
	Mo	Ni	Se
	Ag	Ti	U
	V	Zn	

10531 / 245.1 / 7470 / 7471 : Hg

[illegible]

Inter-Office Shipment

IOS Number : **76960**

Date/Time: 01.25.2021

Created by: Cloe Clifton

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 772722801088

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
685783-001	S	SW09	01.20.2021 13:57	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.03.2021	JKR	PHCC10C28 PHCC28C35	
685783-002	S	SW10	01.20.2021 14:01	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.03.2021	JKR	PHCC10C28 PHCC28C35	
685783-003	S	SW11	01.20.2021 14:07	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.03.2021	JKR	PHCC10C28 PHCC28C35	
685783-004	S	SW12	01.20.2021 14:11	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.03.2021	JKR	PHCC10C28 PHCC28C35	
685783-005	S	SW13	01.21.2021 09:49	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-006	S	SW14	01.21.2021 09:53	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-007	S	SW24	01.21.2021 10:27	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-008	S	SW26	01.21.2021 10:34	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-009	S	SW27	01.21.2021 10:37	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-010	S	SW29	01.21.2021 10:42	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-011	S	FS37	01.21.2021 11:44	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-012	S	FS36	01.21.2021 11:47	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-013	S	FS35	01.21.2021 11:42	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-014	S	FS34	01.21.2021 11:43	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-015	S	FS33	01.21.2021 11:39	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-016	S	FS32	01.21.2021 11:41	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-017	S	FS31	01.21.2021 11:35	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-018	S	FS30	01.21.2021 11:38	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-019	S	FS29	01.21.2021 11:33	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-020	S	FS28	01.21.2021 11:34	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-021	S	FS27	01.21.2021 11:30	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-022	S	FS26	01.21.2021 11:41	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-023	S	FS25	01.21.2021 11:28	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-024	S	FS24	01.21.2021 11:29	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-025	S	FS23	01.21.2021 11:26	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	

Inter-Office Shipment

IOS Number : **76960**

Date/Time: 01.25.2021

Created by: Cloe Clifton

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 772722801088

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
685783-026	S	FS22	01.21.2021 11:26	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-027	S	FS21	01.21.2021 11:25	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-028	S	FS20	01.21.2021 11:24	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-029	S	FS17	01.21.2021 11:17	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-030	S	FS16	01.21.2021 11:14	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-031	S	FS15	01.21.2021 11:15	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-032	S	FS14	01.21.2021 11:13	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-033	S	FS13	01.21.2021 11:10	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-034	S	FS12	01.21.2021 11:07	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-035	S	FS11	01.21.2021 11:05	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-036	S	FS10	01.21.2021 10:53	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-037	S	FS09	01.21.2021 10:47	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-038	S	FS08	01.21.2021 10:42	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-039	S	FS07	01.21.2021 10:36	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-040	S	FS06	01.21.2021 10:30	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-041	S	FS05	01.21.2021 10:22	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-042	S	FS04	01.21.2021 10:17	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-043	S	FS03	01.21.2021 10:09	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-044	S	FS02	01.21.2021 10:05	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	
685783-045	S	FS01	01.21.2021 09:57	SW8015MOD_NM	TPH by SW8015 Mod	01.28.2021	02.04.2021	JKR	PHCC10C28 PHCC28C35	

Inter Office Shipment or Sample Comments:

Relinquished By:



Cloe Clifton

Received By:



Jessica Kramer

Date Relinquished: 01.25.2021

Date Received: 01.26.2021

Inter-Office Shipment

IOS Number : 76960

Date/Time: 01.25.2021

Created by: Cloe Clifton

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.: 772722801088

E-Mail: jessica.kramer@eurofinset.com

Inter Office Shipment or Sample Comments:

Cooler Temperature: 0.3 _____

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 76960

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Cloe Clifton

Date Sent: 01.25.2021 12.38 PM

Received By: Jessica Kramer

Date Received: 01.26.2021 02.07 PM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.3
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: 01.26.2021

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.22.2021 01.45.00 PM

Work Order #: 685783

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T_NM_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

TPH Vials sent to Midland.

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.25.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.26.2021

Certificate of Analysis Summary 686580



WSP USA, Dallas, TX

Project Name: Columbus Federal 021H &022H CTB

Project Id: 31402909.01
Contact: Kalei Jennings
Project Location: Lea

Date Received in Lab: Fri 01.29.2021 09:35
Report Date: 02.04.2021 16:28
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	686580-001	686580-002	686580-003	686580-004	686580-005	686580-006
	<i>Field Id:</i>	SW03	SW04	SW05	SW06	SW08	SW07
	<i>Depth:</i>	0-4 ft	0-4 ft	0-4 ft	0-4 ft	0-4 ft	0-4 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	01.27.2021 13:24	01.27.2021 13:29	01.27.2021 13:31	01.27.2021 13:44	01.27.2021 13:20	01.27.2021 15:03
BTEX by EPA 8021B	<i>Extracted:</i>	01.29.2021 16:21	01.29.2021 16:21	01.29.2021 16:21	01.29.2021 16:21	01.29.2021 16:21	01.29.2021 16:21
	<i>Analyzed:</i>	01.30.2021 16:53	01.30.2021 17:15	01.30.2021 17:38	01.30.2021 18:00	01.30.2021 18:22	01.30.2021 18:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397	<0.00400 0.00400	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	01.30.2021 08:59	01.30.2021 08:59	01.30.2021 08:59	01.30.2021 08:59	01.30.2021 08:59	01.30.2021 08:59
	<i>Analyzed:</i>	01.30.2021 11:20	01.30.2021 11:37	01.30.2021 11:43	01.30.2021 11:49	01.30.2021 11:54	01.30.2021 12:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<9.90 9.90	15.3 9.94	15.6 10.1	33.9 10.1	253 9.92	194 49.9
TPH by SW8015 Mod SUB: T104704400-20-21	<i>Extracted:</i>	02.03.2021 17:00	02.03.2021 17:00	02.03.2021 17:00	02.03.2021 17:00	02.03.2021 17:00	02.03.2021 17:00
	<i>Analyzed:</i>	02.03.2021 22:43	02.03.2021 23:47	02.04.2021 00:08	02.04.2021 00:29	02.04.2021 00:50	02.04.2021 01:11
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Certificate of Analysis Summary 686580



WSP USA, Dallas, TX

Project Name: Columbus Federal 021H &022H CTB

Project Id: 31402909.01
Contact: Kalei Jennings
Project Location: Lea

Date Received in Lab: Fri 01.29.2021 09:35
Report Date: 02.04.2021 16:28
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	686580-007	686580-008	686580-009	686580-010	686580-011	
	Field Id:	SW16	SW18	SW01	SW02	SW21	
	Depth:	0-4 ft	0-4 ft	0-4 ft	0-4 ft	0-4 ft	
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	
	Sampled:	01.28.2021 10:19	01.28.2021 11:46	01.28.2021 13:11	01.28.2021 13:13	01.28.2021 14:56	
BTEX by EPA 8021B	Extracted:	01.29.2021 16:21	01.29.2021 17:24	01.29.2021 17:24	01.29.2021 17:24	01.29.2021 17:24	
	Analyzed:	01.30.2021 19:07	01.30.2021 12:15	01.31.2021 02:25	01.31.2021 02:48	01.30.2021 13:35	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
m,p-Xylenes		<0.00400 0.00400	<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00401 0.00401	
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	
Chloride by EPA 300	Extracted:	01.30.2021 08:59	01.30.2021 08:59	01.30.2021 08:59	01.30.2021 08:59	01.30.2021 08:59	
	Analyzed:	01.30.2021 12:17	01.30.2021 12:23	01.30.2021 12:29	01.30.2021 12:34	01.30.2021 12:40	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		677 49.9	50.5 10.0	165 10.0	265 10.1	184 9.94	
TPH by SW8015 Mod SUB: T104704400-20-21	Extracted:	02.03.2021 17:00	02.03.2021 17:00	02.03.2021 17:00	02.03.2021 17:00	02.03.2021 17:00	
	Analyzed:	02.04.2021 01:32	02.04.2021 01:53	02.04.2021 02:15	02.04.2021 02:36	02.04.2021 03:19	
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	
Total TPH		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



Analytical Report 686580

for

WSP USA

Project Manager: Kalei Jennings

Columbus Federal 021H &022H CTB

31402909.01

02.04.2021

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



02.04.2021

Project Manager: **Kalei Jennings**

WSP USA

2777 N. Stemmons Freeway, Suite 1600
Dallas, TX 75207

Reference: Eurofins Xenco, LLC Report No(s): **686580**

Columbus Federal 021H & 022H CTB

Project Address: Lea

Kalei Jennings:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 686580. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 686580 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

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

Jessica Kramer

Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 686580****WSP USA, Dallas, TX**

Columbus Federal 021H &022H CTB

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SW03	S	01.27.2021 13:24	0 - 4 ft	686580-001
SW04	S	01.27.2021 13:29	0 - 4 ft	686580-002
SW05	S	01.27.2021 13:31	0 - 4 ft	686580-003
SW06	S	01.27.2021 13:44	0 - 4 ft	686580-004
SW08	S	01.27.2021 13:20	0 - 4 ft	686580-005
SW07	S	01.27.2021 15:03	0 - 4 ft	686580-006
SW16	S	01.28.2021 10:19	0 - 4 ft	686580-007
SW18	S	01.28.2021 11:46	0 - 4 ft	686580-008
SW01	S	01.28.2021 13:11	0 - 4 ft	686580-009
SW02	S	01.28.2021 13:13	0 - 4 ft	686580-010
SW21	S	01.28.2021 14:56	0 - 4 ft	686580-011



CASE NARRATIVE

Client Name: WSP USA

Project Name: Columbus Federal 021H &022H CTB

Project ID: 31402909.01
Work Order Number(s): 686580

Report Date: 02.04.2021
Date Received: 01.29.2021

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW03** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-001 Date Collected: 01.27.2021 13:24 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.90	9.90	mg/kg	01.30.2021 11:20	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.03.2021 22:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.03.2021 22:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.03.2021 22:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.03.2021 22:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	02.03.2021 22:43	
o-Terphenyl	84-15-1	92	%	70-130	02.03.2021 22:43	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW03**
Lab Sample Id: 686580-001

Matrix: Soil
Date Collected: 01.27.2021 13:24

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 16:53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 16:53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 16:53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 16:53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 16:53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 16:53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 16:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.30.2021 16:53		
1,4-Difluorobenzene	540-36-3	98	%	70-130	01.30.2021 16:53		



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW04** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-002 Date Collected: 01.27.2021 13:29 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.3	9.94	mg/kg	01.30.2021 11:37		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.03.2021 23:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.03.2021 23:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.03.2021 23:47	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.03.2021 23:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	02.03.2021 23:47	
o-Terphenyl	84-15-1	103	%	70-130	02.03.2021 23:47	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW04**
Lab Sample Id: 686580-002

Matrix: Soil
Date Collected: 01.27.2021 13:29

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.30.2021 17:15	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.30.2021 17:15	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.30.2021 17:15	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.30.2021 17:15	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.30.2021 17:15	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.30.2021 17:15	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.30.2021 17:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.30.2021 17:15	
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.30.2021 17:15	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW05** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-003 Date Collected: 01.27.2021 13:31 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.6	10.1	mg/kg	01.30.2021 11:43		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	02.04.2021 00:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	02.04.2021 00:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	02.04.2021 00:08	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	02.04.2021 00:08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	02.04.2021 00:08	
o-Terphenyl	84-15-1	114	%	70-130	02.04.2021 00:08	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW05** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-003 Date Collected: 01.27.2021 13:31 Sample Depth: 0 - 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.29.2021 16:21 % Moisture:
 Seq Number: 3149555 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 17:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 17:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 17:38	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.30.2021 17:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 17:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 17:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 17:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.30.2021 17:38	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.30.2021 17:38	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW06** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-004 Date Collected: 01.27.2021 13:44 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	33.9	10.1	mg/kg	01.30.2021 11:49		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.04.2021 00:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.04.2021 00:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.04.2021 00:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.04.2021 00:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	02.04.2021 00:29	
o-Terphenyl	84-15-1	101	%	70-130	02.04.2021 00:29	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW06**
Lab Sample Id: 686580-004

Matrix: Soil
Date Collected: 01.27.2021 13:44

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.30.2021 18:00	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.30.2021 18:00	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.30.2021 18:00	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.30.2021 18:00	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.30.2021 18:00	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.30.2021 18:00	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.30.2021 18:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	01.30.2021 18:00	
4-Bromofluorobenzene	460-00-4	108	%	70-130	01.30.2021 18:00	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW08** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-005 Date Collected: 01.27.2021 13:20 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	253	9.92	mg/kg	01.30.2021 11:54		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.04.2021 00:50	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.04.2021 00:50	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.04.2021 00:50	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.04.2021 00:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	02.04.2021 00:50	
o-Terphenyl	84-15-1	116	%	70-130	02.04.2021 00:50	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW08**
Lab Sample Id: 686580-005

Matrix: Soil
Date Collected: 01.27.2021 13:20

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 18:22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 18:22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 18:22	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.30.2021 18:22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 18:22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 18:22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 18:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	01.30.2021 18:22	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.30.2021 18:22	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW07** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-006 Date Collected: 01.27.2021 15:03 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	194	49.9	mg/kg	01.30.2021 12:12		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.04.2021 01:11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.04.2021 01:11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.04.2021 01:11	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.04.2021 01:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-130	02.04.2021 01:11	
o-Terphenyl	84-15-1	107	%	70-130	02.04.2021 01:11	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW07**
Lab Sample Id: 686580-006

Matrix: Soil
Date Collected: 01.27.2021 15:03

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 18:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 18:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 18:45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.30.2021 18:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 18:45	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 18:45	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 18:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	01.30.2021 18:45	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.30.2021 18:45	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW16** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-007 Date Collected: 01.28.2021 10:19 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	677	49.9	mg/kg	01.30.2021 12:17		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.04.2021 01:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.04.2021 01:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.04.2021 01:32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.04.2021 01:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	02.04.2021 01:32	
o-Terphenyl	84-15-1	115	%	70-130	02.04.2021 01:32	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW16**
Lab Sample Id: 686580-007

Matrix: Soil
Date Collected: 01.28.2021 10:19

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 16:21

% Moisture:
Basis: Wet Weight

Seq Number: 3149555

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 19:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 19:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 19:07	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.30.2021 19:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 19:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 19:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 19:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.30.2021 19:07		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.30.2021 19:07		



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW18** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-008 Date Collected: 01.28.2021 11:46 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.5	10.0	mg/kg	01.30.2021 12:23		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.04.2021 01:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.04.2021 01:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.04.2021 01:53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.04.2021 01:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	02.04.2021 01:53	
o-Terphenyl	84-15-1	111	%	70-130	02.04.2021 01:53	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW18**
Lab Sample Id: 686580-008

Matrix: Soil
Date Collected: 01.28.2021 11:46

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 17:24

% Moisture:
Basis: Wet Weight

Seq Number: 3149548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 12:15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 12:15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 12:15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.30.2021 12:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 12:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 12:15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 12:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	127	%	70-130	01.30.2021 12:15	
1,4-Difluorobenzene	540-36-3	87	%	70-130	01.30.2021 12:15	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW01** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-009 Date Collected: 01.28.2021 13:11 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	165	10.0	mg/kg	01.30.2021 12:29		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.04.2021 02:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.04.2021 02:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.04.2021 02:15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.04.2021 02:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	90	%	70-130	02.04.2021 02:15	
o-Terphenyl	84-15-1	106	%	70-130	02.04.2021 02:15	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW01**
Lab Sample Id: 686580-009

Matrix: Soil
Date Collected: 01.28.2021 13:11

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 17:24

% Moisture:
Basis: Wet Weight

Seq Number: 3149548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.31.2021 02:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.31.2021 02:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.31.2021 02:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.31.2021 02:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.31.2021 02:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.31.2021 02:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.31.2021 02:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	88	%	70-130	01.31.2021 02:25	
4-Bromofluorobenzene	460-00-4	120	%	70-130	01.31.2021 02:25	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW02** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-010 Date Collected: 01.28.2021 13:13 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	265	10.1	mg/kg	01.30.2021 12:34		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	02.04.2021 02:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	02.04.2021 02:36	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	02.04.2021 02:36	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	02.04.2021 02:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	02.04.2021 02:36	
o-Terphenyl	84-15-1	108	%	70-130	02.04.2021 02:36	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW02**
Lab Sample Id: 686580-010

Matrix: Soil
Date Collected: 01.28.2021 13:13

Date Received: 01.29.2021 09:35
Sample Depth: 0 - 4 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 01.29.2021 17:24

% Moisture:
Basis: Wet Weight

Seq Number: 3149548

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.31.2021 02:48	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.31.2021 02:48	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.31.2021 02:48	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.31.2021 02:48	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.31.2021 02:48	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.31.2021 02:48	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.31.2021 02:48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	129	%	70-130	01.31.2021 02:48		
1,4-Difluorobenzene	540-36-3	92	%	70-130	01.31.2021 02:48		



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW21** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-011 Date Collected: 01.28.2021 14:56 Sample Depth: 0 - 4 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: MAB
 Analyst: MAB Date Prep: 01.30.2021 08:59 % Moisture:
 Seq Number: 3149466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	184	9.94	mg/kg	01.30.2021 12:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DVM
 Analyst: ARM Date Prep: 02.03.2021 17:00 % Moisture:
 Seq Number: 3150009 Basis: Wet Weight
 SUB: T104704400-20-21

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	02.04.2021 03:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	02.04.2021 03:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	02.04.2021 03:19	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	02.04.2021 03:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	02.04.2021 03:19	
o-Terphenyl	84-15-1	117	%	70-130	02.04.2021 03:19	



Certificate of Analytical Results 686580

WSP USA, Dallas, TX Columbus Federal 021H & 022H CTB

Sample Id: **SW21** Matrix: Soil Date Received: 01.29.2021 09:35
 Lab Sample Id: 686580-011 Date Collected: 01.28.2021 14:56 Sample Depth: 0 - 4 ft
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: MAB
 Analyst: MAB Date Prep: 01.29.2021 17:24 % Moisture:
 Seq Number: 3149548 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.30.2021 13:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.30.2021 13:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.30.2021 13:35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.30.2021 13:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.30.2021 13:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.30.2021 13:35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.30.2021 13:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	93	%	70-130	01.30.2021 13:35		
4-Bromofluorobenzene	460-00-4	125	%	70-130	01.30.2021 13:35		

Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



WSP USA
Columbus Federal 021H &022H CTB

Analytical Method: Chloride by EPA 300

Seq Number: 3149466

MB Sample Id: 7720394-1-BLK

Matrix: Solid

LCS Sample Id: 7720394-1-BKS

Prep Method: E300P

Date Prep: 01.30.2021

LCSD Sample Id: 7720394-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	200	206	103	204	102	90-110	1	20	mg/kg	01.30.2021 11:09	

Analytical Method: Chloride by EPA 300

Seq Number: 3149466

Parent Sample Id: 686580-001

Matrix: Soil

MS Sample Id: 686580-001 S

Prep Method: E300P

Date Prep: 01.30.2021

MSD Sample Id: 686580-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	208	105	207	104	90-110	0	20	mg/kg	01.30.2021 11:26	

Analytical Method: Chloride by EPA 300

Seq Number: 3149466

Parent Sample Id: 686580-011

Matrix: Soil

MS Sample Id: 686580-011 S

Prep Method: E300P

Date Prep: 01.30.2021

MSD Sample Id: 686580-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	184	200	396	106	402	109	90-110	2	20	mg/kg	01.30.2021 12:46	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3150009

MB Sample Id: 7720763-1-BLK

Matrix: Solid

LCS Sample Id: 7720763-1-BKS

Prep Method: SW8015P

Date Prep: 02.03.2021

LCSD Sample Id: 7720763-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	917	92	904	90	70-130	1	20	mg/kg	02.03.2021 22:01	
Diesel Range Organics (DRO)	<50.0	1000	1040	104	1030	103	70-130	1	20	mg/kg	02.03.2021 22:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		105		106		70-130	%	02.03.2021 22:01
o-Terphenyl	125		111		111		70-130	%	02.03.2021 22:01

Analytical Method: TPH by SW8015 Mod

Seq Number: 3150009

Matrix: Solid

MB Sample Id: 7720763-1-BLK

Prep Method: SW8015P

Date Prep: 02.03.2021

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	02.03.2021 21:39	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



WSP USA
Columbus Federal 021H &022H CTB

Analytical Method: TPH by SW8015 Mod

Seq Number: 3150009

Parent Sample Id: 686580-001

Matrix: Soil

MS Sample Id: 686580-001 S

Prep Method: SW8015P

Date Prep: 02.03.2021

MSD Sample Id: 686580-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	833	84	846	85	70-130	2	20	mg/kg	02.03.2021 23:04	
Diesel Range Organics (DRO)	<49.9	997	899	90	933	93	70-130	4	20	mg/kg	02.03.2021 23:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	84		87		70-130	%	02.03.2021 23:04
o-Terphenyl	84		87		70-130	%	02.03.2021 23:04

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149555

MB Sample Id: 7720402-1-BLK

Matrix: Solid

LCS Sample Id: 7720402-1-BKS

Prep Method: SW5035A

Date Prep: 01.29.2021

LCSD Sample Id: 7720402-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0908	91	0.0929	93	70-130	2	35	mg/kg	01.30.2021 08:59	
Toluene	<0.00200	0.100	0.0894	89	0.0932	93	70-130	4	35	mg/kg	01.30.2021 08:59	
Ethylbenzene	<0.00200	0.100	0.0944	94	0.0938	94	71-129	1	35	mg/kg	01.30.2021 08:59	
m,p-Xylenes	<0.00400	0.200	0.183	92	0.185	93	70-135	1	35	mg/kg	01.30.2021 08:59	
o-Xylene	<0.00200	0.100	0.0933	93	0.0933	93	71-133	0	35	mg/kg	01.30.2021 08:59	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		96		70-130	%	01.30.2021 08:59
4-Bromofluorobenzene	108		99		99		70-130	%	01.30.2021 08:59

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149548

MB Sample Id: 7720403-1-BLK

Matrix: Solid

LCS Sample Id: 7720403-1-BKS

Prep Method: SW5035A

Date Prep: 01.29.2021

LCSD Sample Id: 7720403-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0765	77	0.0800	80	70-130	4	35	mg/kg	01.30.2021 10:35	
Toluene	<0.00200	0.100	0.0928	93	0.0983	98	70-130	6	35	mg/kg	01.30.2021 10:35	
Ethylbenzene	<0.00200	0.100	0.103	103	0.107	107	71-129	4	35	mg/kg	01.30.2021 10:35	
m,p-Xylenes	<0.00400	0.200	0.223	112	0.229	115	70-135	3	35	mg/kg	01.30.2021 10:35	
o-Xylene	<0.00200	0.100	0.112	112	0.119	119	71-133	6	35	mg/kg	01.30.2021 10:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		86		88		70-130	%	01.30.2021 10:35
4-Bromofluorobenzene	120		124		122		70-130	%	01.30.2021 10:35

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



WSP USA
Columbus Federal 021H &022H CTB

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149555

Parent Sample Id: 686527-009

Matrix: Soil

MS Sample Id: 686527-009 S

Prep Method: SW5035A

Date Prep: 01.29.2021

MSD Sample Id: 686527-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0949	95	0.0960	96	70-130	1	35	mg/kg	01.30.2021 09:44	
Toluene	<0.00200	0.100	0.0947	95	0.0953	96	70-130	1	35	mg/kg	01.30.2021 09:44	
Ethylbenzene	<0.00200	0.100	0.0951	95	0.0942	95	71-129	1	35	mg/kg	01.30.2021 09:44	
m,p-Xylenes	<0.00400	0.200	0.191	96	0.188	94	70-135	2	35	mg/kg	01.30.2021 09:44	
o-Xylene	<0.00200	0.100	0.0962	96	0.0969	97	71-133	1	35	mg/kg	01.30.2021 09:44	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		96		70-130	%	01.30.2021 09:44
4-Bromofluorobenzene	102		100		70-130	%	01.30.2021 09:44

Analytical Method: BTEX by EPA 8021B

Seq Number: 3149548

Parent Sample Id: 686580-008

Matrix: Soil

MS Sample Id: 686580-008 S

Prep Method: SW5035A

Date Prep: 01.29.2021

MSD Sample Id: 686580-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0789	78	0.0790	78	70-130	0	35	mg/kg	01.30.2021 11:20	
Toluene	<0.00201	0.101	0.0889	88	0.0943	93	70-130	6	35	mg/kg	01.30.2021 11:20	
Ethylbenzene	<0.00201	0.101	0.0984	97	0.106	105	71-129	7	35	mg/kg	01.30.2021 11:20	
m,p-Xylenes	<0.00402	0.201	0.209	104	0.223	110	70-135	6	35	mg/kg	01.30.2021 11:20	
o-Xylene	<0.00201	0.101	0.109	108	0.113	112	71-133	4	35	mg/kg	01.30.2021 11:20	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		89		70-130	%	01.30.2021 11:20
4-Bromofluorobenzene	128		127		70-130	%	01.30.2021 11:20

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Work Order No: 1686580

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) 365-0900 Atlanta, GA (770) 449-8800 Tampa, FL (813) 620-2000

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Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavares
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 itavares@concho.com

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

ANALYSIS REQUEST

Work Order Notes

Project Name:	Columbus Federal 021H & 022H CTB	Turn Around	
Project Number:	31402909.01	Route	F
P.O. Number:	Lea	Rush:	
Sampler's Name:	William Mather	Due Date:	
SAMPLE RECEIPT			
Temperature (°C):	0.4/0.2	Temp Blank:	Yes ☒ No ☐
Received Intact:	Yes ☒ No ☐	Wet Ice:	Yes ☒ No ☐
Cooler Custody Seals:	Yes ☒ No ☐	Thermometer ID	7MM007
Sample Custody Seals:	Yes ☒ No ☐	Correction Factor:	-0.2
		Total Containers:	11

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers										Sample Comments
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)								
SW03	S	1/27/2021	13:24	0-4'	1	X	X	X							Composite
SW04	S	1/27/2021	13:29	0-4'	1	X	X	X							Composite
SW05	S	1/27/2021	13:31	0-4'	1	X	X	X							Composite
SW06	S	1/27/2021	13:44	0-4'	1	X	X	X							Composite
SW07	S	1/27/2021	13:20	0-4'	1	X	X	X							Composite
SW08	S	1/27/2021	15:03	0-4'	1	X	X	X							Composite
SW16	S	1/28/2021	10:19	0-4'	1	X	X	X							Composite
SW18	S	1/28/2021	11:46	0-4'	1	X	X	X							Composite
SW01	S	1/28/2021	13:11	0-4'	1	X	X	X							Composite
SW02	S	1/28/2021	13:13	0-4'	1	X	X	X							Composite

Total 200.7 / 6010 200.8 / 6020:

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

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

1631 / 245.1 / 7470 / 7471 : Hg

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

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time



Chain of Custody

Work Order No: 1581580

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
(575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-222-2222)

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta GA (770-449-8800) Tampa FL (813-620-2000)

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Project Manager:		Kalel Jennings	Bill to: (if different)		Ike Tavaraz
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, kalel.jennings@wsp.com, itavaraz@concho.com

Program: UST/PST ☐ RP ☐ Growfields ☐ RC ☐ perfund State of Project:	
Reporting Level II ☐ Level III ☐ PST/UST ☐ RP ☐ Level IV ☐	Deliverables: EDD ☐ ADAPT ☐ Other:

www.xenco.com Page <u>1</u> of <u>1</u>	
Work Order Comments	

ANALYSIS REQUEST										Work Order Notes	
Project Name:	Columbus Federal 021H & 022H CTB					Turn Around					
Project Number:	31402909.01					Routine		1			
P.O. Number:	Lea					Rush:					
Sampler's Name:	William Mather					Due Date:					
SAMPLE RECEIPT											
Temperature (°C):		Temp Blank:	Yes	No	Wet Ice:	Yes	No				
Received In tact:	Yes <i>Yes</i>		No <i>No</i>		Thermometer ID						
Cooler Custody Seals:	Yes	No	N/A		Correction Factor:						
Sample Custody Seals:	Yes	No	N/A		Total Containers:						
of Containers											
8015)											
A 0=8021)											
(EPA 300.0)											
TAT starts the day received by the											

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA)	BTEX (EPA)	Chloride (EPA)	Other	Sample Comments
SW21	S	1/28/2021	14:56	0-4'	1	X	X	X		
										Composite
										Sample Comments
lab, if received by 4:30pm										

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

Sample Comments

Composite

Total	200.7 / 6010	200.8 / 6020:
-------	--------------	---------------

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

[illegible]

1631 / 245.1 / 7470 / 7471 : Ho

10. Xencio 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 Xencio. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xencio, but not analyzed. These terms will be enforced unless previously negotiated.

	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
1		1/29/21 09:35		
2				
3				
4				
5				

Inter-Office Shipment

IOS Number : **77325**

Date/Time: 01.29.2021

Created by: Cloe Clifton

Please send report to: Jessica Kramer

Lab# From: **Carlsbad**

Delivery Priority:

Address: 1089 N Canal Street

Lab# To: **Midland**

Air Bill No.:

E-Mail: jessica.kramer@eurofinset.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
686580-001	S	SW03	01.27.2021 13:24	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.10.2021	JKR	PHCC10C28 PHCC28C35	
686580-002	S	SW04	01.27.2021 13:29	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.10.2021	JKR	PHCC10C28 PHCC28C35	
686580-003	S	SW05	01.27.2021 13:31	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.10.2021	JKR	PHCC10C28 PHCC28C35	
686580-004	S	SW06	01.27.2021 13:44	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.10.2021	JKR	PHCC10C28 PHCC28C35	
686580-005	S	SW08	01.27.2021 13:20	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.10.2021	JKR	PHCC10C28 PHCC28C35	
686580-006	S	SW07	01.27.2021 15:03	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.10.2021	JKR	PHCC10C28 PHCC28C35	
686580-007	S	SW16	01.28.2021 10:19	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.11.2021	JKR	PHCC10C28 PHCC28C35	
686580-008	S	SW18	01.28.2021 11:46	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.11.2021	JKR	PHCC10C28 PHCC28C35	
686580-009	S	SW01	01.28.2021 13:11	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.11.2021	JKR	PHCC10C28 PHCC28C35	
686580-010	S	SW02	01.28.2021 13:13	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.11.2021	JKR	PHCC10C28 PHCC28C35	
686580-011	S	SW21	01.28.2021 14:56	SW8015MOD_NM	TPH by SW8015 Mod	02.04.2021	02.11.2021	JKR	PHCC10C28 PHCC28C35	

Inter Office Shipment or Sample Comments:

Relinquished By:



Cloe Clifton

Date Relinquished: 01.29.2021

Received By:



Jessica Kramer

Date Received: 02.01.2021

Cooler Temperature: 2.5

Inter Office Report- Sample Receipt Checklist

Sent To: Midland

IOS #: 77325

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sent By: Cloe Clifton

Date Sent: 01.29.2021 12.59 PM

Received By: Jessica Kramer

Date Received: 02.01.2021 10.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:



Jessica Kramer

Date: 02.01.2021

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: WSP USA

Date/ Time Received: 01.29.2021 09.35.00 AM

Work Order #: 686580

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : t_nm_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	Yes
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

TPH sent to Midland

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 01.29.2021

Checklist reviewed by:



Jessica Kramer

Date: 01.29.2021



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-117-1

Client Project/Site: Columbus Federal 021H & 022H CTB

For:

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

Attn: Dan Moir

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

Authorized for release by:
2/8/2021 8:04:59 PM

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

LINKS

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

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

Client: WSP USA Inc.

Laboratory Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Eurofins Xenco, Carlsbad

Case Narrative

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Job ID: 890-117-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-117-1

Receipt

The samples were received on 2/1/2021 3:57 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 890-123 and analytical batch 890-145 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Detection Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS38

Lab Sample ID: 890-117-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7380		99.4	mg/Kg	10		300.0	Soluble

Client Sample ID: FS39

Lab Sample ID: 890-117-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9820		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS40

Lab Sample ID: 890-117-3

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3910		100	mg/Kg	10		300.0	Soluble

Client Sample ID: FS41

Lab Sample ID: 890-117-4

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3510		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS42

Lab Sample ID: 890-117-5

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1560		100	mg/Kg	10		300.0	Soluble

Client Sample ID: FS43

Lab Sample ID: 890-117-6

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1370		99.8	mg/Kg	10		300.0	Soluble

Client Sample ID: FS44

Lab Sample ID: 890-117-7

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2740		99.0	mg/Kg	10		300.0	Soluble

Client Sample ID: FS45

Lab Sample ID: 890-117-8

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	215		10.0	mg/Kg	1		300.0	Soluble

Client Sample ID: FS46

Lab Sample ID: 890-117-9

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	495		9.92	mg/Kg	1		300.0	Soluble

Client Sample ID: FS47

Lab Sample ID: 890-117-10

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1180		99.2	mg/Kg	10		300.0	Soluble

Client Sample ID: FS48

Lab Sample ID: 890-117-11

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3530		99.0	mg/Kg	10		300.0	Soluble

Client Sample ID: FS49

Lab Sample ID: 890-117-12

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3500		99.4	mg/Kg	10		300.0	Soluble

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Carlsbad

Detection Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS50

Lab Sample ID: 890-117-13

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2330		100	mg/Kg	10		300.0	Soluble

Client Sample ID: FS51

Lab Sample ID: 890-117-14

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1120		99.6	mg/Kg	10		300.0	Soluble

Client Sample ID: FS54

Lab Sample ID: 890-117-15

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3210		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS55

Lab Sample ID: 890-117-16

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9560		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS56

Lab Sample ID: 890-117-17

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2720		99.6	mg/Kg	10		300.0	Soluble

Client Sample ID: FS57

Lab Sample ID: 890-117-18

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1490		99.4	mg/Kg	10		300.0	Soluble

Client Sample ID: FS58

Lab Sample ID: 890-117-19

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9420		100	mg/Kg	10		300.0	Soluble

Client Sample ID: FS59

Lab Sample ID: 890-117-20

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5430		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS60

Lab Sample ID: 890-117-21

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2370		99.0	mg/Kg	10		300.0	Soluble

Client Sample ID: FS61

Lab Sample ID: 890-117-22

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3820		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS62

Lab Sample ID: 890-117-23

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1680		99.4	mg/Kg	10		300.0	Soluble

Client Sample ID: FS63

Lab Sample ID: 890-117-24

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	821		101	mg/Kg	10		300.0	Soluble

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Carlsbad

Detection Summary

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Client Sample ID: FS64

Lab Sample ID: 890-117-25

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3060		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS65

Lab Sample ID: 890-117-26

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3610		101	mg/Kg	10		300.0	Soluble

Client Sample ID: FS66

Lab Sample ID: 890-117-27

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2410		99.6	mg/Kg	10		300.0	Soluble

Client Sample ID: FS67

Lab Sample ID: 890-117-28

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3290		99.6	mg/Kg	10		300.0	Soluble

Client Sample ID: FS68

Lab Sample ID: 890-117-29

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4360		99.2	mg/Kg	10		300.0	Soluble

Client Sample ID: FS69

Lab Sample ID: 890-117-30

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	530		10.0	mg/Kg	1		300.0	Soluble

Client Sample ID: FS70

Lab Sample ID: 890-117-31

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	410		10.1	mg/Kg	1		300.0	Soluble

Client Sample ID: SW17

Lab Sample ID: 890-117-32

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	258		9.96	mg/Kg	1		300.0	Soluble

Client Sample ID: SW19

Lab Sample ID: 890-117-33

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	279		10.0	mg/Kg	1		300.0	Soluble

Client Sample ID: SW28

Lab Sample ID: 890-117-34

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15.6		10.1	mg/Kg	1		300.0	Soluble

Client Sample ID: SW30

Lab Sample ID: 890-117-35

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Chloride	47.5		9.94	mg/Kg	1		300.0	Soluble

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS38

Lab Sample ID: 890-117-1

Date Collected: 02/01/21 09:51

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 03:47	1
Ethylbenzene	<0.00198	U F1 F2	0.00198	mg/Kg		02/02/21 20:58	02/04/21 03:47	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 03:47	1
Total BTEX	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 03:47	1
Xylenes, Total	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 03:47	1
m,p-Xylenes	<0.00397	U	0.00397	mg/Kg		02/02/21 20:58	02/04/21 03:47	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 03:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130	02/02/21 20:58	02/04/21 03:47	1
4-Bromofluorobenzene (Surr)	104		70 - 130	02/02/21 20:58	02/04/21 03:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7380		99.4	mg/Kg			02/02/21 21:41	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:57	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:57	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:57	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69		70 - 135	02/05/21 12:00	02/05/21 12:57	1
o-Terphenyl	87		70 - 135	02/05/21 12:00	02/05/21 12:57	1

Client Sample ID: FS39

Lab Sample ID: 890-117-2

Date Collected: 02/01/21 09:52

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 04:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 04:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 04:55	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 04:55	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 04:55	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/02/21 20:58	02/04/21 04:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 04:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	103		70 - 130	02/02/21 20:58	02/04/21 04:55	1
4-Bromofluorobenzene (Surr)	104		70 - 130	02/02/21 20:58	02/04/21 04:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9820		101	mg/Kg			02/02/21 21:58	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:01	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS39

Lab Sample ID: 890-117-2

Date Collected: 02/01/21 09:52

Matrix: Solid

Date Received: 02/01/21 15:57

Method: SW8015-MOD - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:01	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:01	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	69		70 - 135				02/05/21 12:00	02/05/21 14:01	1
o-Terphenyl	87		70 - 135				02/05/21 12:00	02/05/21 14:01	1

Client Sample ID: FS40

Lab Sample ID: 890-117-3

Date Collected: 02/01/21 09:54

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 05:17	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 05:17	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 05:17	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 05:17	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 05:17	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/02/21 20:58	02/04/21 05:17	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 05:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130			02/02/21 20:58	02/04/21 05:17	1
4-Bromofluorobenzene (Surr)	103		70 - 130			02/02/21 20:58	02/04/21 05:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3910		100	mg/Kg			02/02/21 22:04	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 14:22	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 14:22	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 14:22	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 14:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 135				02/05/21 12:00	02/05/21 14:22	1
o-Terphenyl	88		70 - 135				02/05/21 12:00	02/05/21 14:22	1

Client Sample ID: FS41

Lab Sample ID: 890-117-4

Date Collected: 02/01/21 09:55

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 05:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 05:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 05:40	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 05:40	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 05:40	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS41

Lab Sample ID: 890-117-4

Date Collected: 02/01/21 09:55

Matrix: Solid

Date Received: 02/01/21 15:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/02/21 20:58	02/04/21 05:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 05:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130			02/02/21 20:58	02/04/21 05:40	1
4-Bromofluorobenzene (Surr)	104		70 - 130			02/02/21 20:58	02/04/21 05:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3510		101	mg/Kg			02/02/21 22:10	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:44	1
Gasoline Range Hydrocarbons (GRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:44	1
Motor Oil Range Hydrocarbons (MRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:44	1
Total TPH	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 135				02/05/21 12:00	02/05/21 14:44	1
o-Terphenyl	88		70 - 135				02/05/21 12:00	02/05/21 14:44	1

Client Sample ID: FS42

Lab Sample ID: 890-117-5

Date Collected: 02/01/21 09:56

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 06:02	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 06:02	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 06:02	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 06:02	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 06:02	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/02/21 20:58	02/04/21 06:02	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 06:02	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130			02/02/21 20:58	02/04/21 06:02	1
4-Bromofluorobenzene (Surr)	106		70 - 130			02/02/21 20:58	02/04/21 06:02	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1560		100	mg/Kg			02/02/21 22:15	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:05	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:05	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:05	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:05	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS42

Date Collected: 02/01/21 09:56

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-5

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	65		70 - 135	02/05/21 12:00	02/05/21 15:05	1
o-Terphenyl	78		70 - 135	02/05/21 12:00	02/05/21 15:05	1

Client Sample ID: FS43

Date Collected: 02/01/21 09:57

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-6

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 06:47	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 06:47	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 06:47	1
Total BTEX	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 06:47	1
Xylenes, Total	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 06:47	1
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/02/21 20:58	02/04/21 06:47	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 06:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130			02/02/21 20:58	02/04/21 06:47	1
4-Bromofluorobenzene (Surr)	102		70 - 130			02/02/21 20:58	02/04/21 06:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1370		99.8	mg/Kg			02/02/21 22:33	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:27	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:27	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:27	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	67		70 - 135				02/05/21 12:00	02/05/21 15:27	1
o-Terphenyl	82		70 - 135				02/05/21 12:00	02/05/21 15:27	1

Client Sample ID: FS44

Date Collected: 02/01/21 09:59

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-7

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 07:09	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 07:09	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 07:09	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 07:09	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 07:09	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		02/02/21 20:58	02/04/21 07:09	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 07:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130			02/02/21 20:58	02/04/21 07:09	

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS44

Lab Sample ID: 890-117-7

Date Collected: 02/01/21 09:59

Matrix: Solid

Date Received: 02/01/21 15:57

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	02/02/21 20:58	02/04/21 07:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2740		99.0	mg/Kg			02/02/21 22:38	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:48	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:48	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:48	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	64		70 - 135	02/05/21 12:00	02/05/21 15:48	1
o-Terphenyl	79		70 - 135	02/05/21 12:00	02/05/21 15:48	1

Client Sample ID: FS45

Lab Sample ID: 890-117-8

Date Collected: 02/01/21 10:01

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 07:32	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 07:32	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 07:32	1
Total BTEX	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 07:32	1
Xylenes, Total	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 07:32	1
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/02/21 20:58	02/04/21 07:32	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 07:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	02/02/21 20:58	02/04/21 07:32	1
4-Bromofluorobenzene (Surr)	106		70 - 130	02/02/21 20:58	02/04/21 07:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	215		10.0	mg/Kg			02/02/21 22:44	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:10	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:10	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:10	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 135	02/05/21 12:00	02/05/21 16:10	1
o-Terphenyl	90		70 - 135	02/05/21 12:00	02/05/21 16:10	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS46

Lab Sample ID: 890-117-9

Date Collected: 02/01/21 10:02

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 07:54	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 07:54	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 07:54	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 07:54	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 07:54	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/02/21 20:58	02/04/21 07:54	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 07:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	108		70 - 130	02/02/21 20:58	02/04/21 07:54	1
4-Bromofluorobenzene (Surr)	105		70 - 130	02/02/21 20:58	02/04/21 07:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	495		9.92	mg/Kg			02/02/21 22:50	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 16:31	1
Gasoline Range Hydrocarbons (GRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 16:31	1
Motor Oil Range Hydrocarbons (MRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 16:31	1
Total TPH	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	66		70 - 135	02/05/21 12:00	02/05/21 16:31	1
o-Terphenyl	81		70 - 135	02/05/21 12:00	02/05/21 16:31	1

Client Sample ID: FS47

Lab Sample ID: 890-117-10

Date Collected: 02/01/21 10:05

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 08:17	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 08:17	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 08:17	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 08:17	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 08:17	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/02/21 20:58	02/04/21 08:17	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 08:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130	02/02/21 20:58	02/04/21 08:17	1
4-Bromofluorobenzene (Surr)	102		70 - 130	02/02/21 20:58	02/04/21 08:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1180		99.2	mg/Kg			02/02/21 22:55	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:53	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS47

Lab Sample ID: 890-117-10

Date Collected: 02/01/21 10:05

Matrix: Solid

Date Received: 02/01/21 15:57

Method: SW8015-MOD - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:53	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:53	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	69		70 - 135				02/05/21 12:00	02/05/21 16:53	1
o-Terphenyl	86		70 - 135				02/05/21 12:00	02/05/21 16:53	1

Client Sample ID: FS48

Lab Sample ID: 890-117-11

Date Collected: 02/01/21 10:07

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 08:39	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 08:39	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 08:39	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 08:39	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 08:39	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/02/21 20:58	02/04/21 08:39	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 08:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130			02/02/21 20:58	02/04/21 08:39	1
4-Bromofluorobenzene (Surr)	101		70 - 130			02/02/21 20:58	02/04/21 08:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3530		99.0	mg/Kg			02/02/21 23:01	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:36	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:36	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:36	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	67		70 - 135				02/05/21 12:00	02/05/21 17:36	1
o-Terphenyl	85		70 - 135				02/05/21 12:00	02/05/21 17:36	1

Client Sample ID: FS49

Lab Sample ID: 890-117-12

Date Collected: 02/01/21 10:08

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 09:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 09:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 09:01	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 09:01	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 09:01	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS49

Lab Sample ID: 890-117-12

Date Collected: 02/01/21 10:08

Matrix: Solid

Date Received: 02/01/21 15:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/02/21 20:58	02/04/21 09:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 09:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	107		70 - 130			02/02/21 20:58	02/04/21 09:01	1
4-Bromofluorobenzene (Surr)	100		70 - 130			02/02/21 20:58	02/04/21 09:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3500		99.4	mg/Kg			02/02/21 23:18	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:57	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:57	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:57	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	67		70 - 135				02/05/21 12:00	02/05/21 17:57	1
o-Terphenyl	85		70 - 135				02/05/21 12:00	02/05/21 17:57	1

Client Sample ID: FS50

Lab Sample ID: 890-117-13

Date Collected: 02/01/21 10:09

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:24	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:24	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:24	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:24	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:24	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/02/21 20:58	02/04/21 09:24	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130			02/02/21 20:58	02/04/21 09:24	1
4-Bromofluorobenzene (Surr)	104		70 - 130			02/02/21 20:58	02/04/21 09:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2330		100	mg/Kg			02/02/21 23:24	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 18:19	1
Gasoline Range Hydrocarbons (GRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 18:19	1
Motor Oil Range Hydrocarbons (MRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 18:19	1
Total TPH	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 18:19	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS50

Date Collected: 02/01/21 10:09

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-13

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69		70 - 135	02/05/21 12:00	02/05/21 18:19	1
o-Terphenyl	84		70 - 135	02/05/21 12:00	02/05/21 18:19	1

Client Sample ID: FS51

Date Collected: 02/01/21 10:11

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-14

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:46	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:46	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:46	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:46	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:46	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/02/21 20:58	02/04/21 09:46	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 09:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130			02/02/21 20:58	02/04/21 09:46	1
4-Bromofluorobenzene (Surr)	102		70 - 130			02/02/21 20:58	02/04/21 09:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1120		99.6	mg/Kg			02/02/21 23:41	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:40	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:40	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:40	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 135				02/05/21 12:00	02/05/21 18:40	1
o-Terphenyl	95		70 - 135				02/05/21 12:00	02/05/21 18:40	1

Client Sample ID: FS54

Date Collected: 02/01/21 10:13

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-15

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 10:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 10:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 10:09	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 10:09	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 10:09	1
m,p-Xylenes	<0.00401	U	0.00401	mg/Kg		02/02/21 20:58	02/04/21 10:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 10:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130			02/02/21 20:58	02/04/21 10:09	

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS54

Lab Sample ID: 890-117-15

Date Collected: 02/01/21 10:13

Matrix: Solid

Date Received: 02/01/21 15:57

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	02/02/21 20:58	02/04/21 10:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3210		101	mg/Kg			02/02/21 23:46	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 19:01	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 19:01	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 19:01	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 135	02/05/21 12:00	02/05/21 19:01	1
o-Terphenyl	99		70 - 135	02/05/21 12:00	02/05/21 19:01	1

Client Sample ID: FS55

Lab Sample ID: 890-117-16

Date Collected: 02/01/21 10:15

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 10:54	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 10:54	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 10:54	1
Total BTEX	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 10:54	1
Xylenes, Total	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 10:54	1
m,p-Xylenes	<0.00397	U	0.00397	mg/Kg		02/02/21 20:58	02/04/21 10:54	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/02/21 20:58	02/04/21 10:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130	02/02/21 20:58	02/04/21 10:54	1
4-Bromofluorobenzene (Surr)	101		70 - 130	02/02/21 20:58	02/04/21 10:54	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9560		101	mg/Kg			02/02/21 23:52	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 19:23	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 19:23	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 19:23	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69		70 - 135	02/05/21 12:00	02/05/21 19:23	1
o-Terphenyl	89		70 - 135	02/05/21 12:00	02/05/21 19:23	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS56

Lab Sample ID: 890-117-17

Date Collected: 02/01/21 10:16

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 11:16	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 11:16	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 11:16	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 11:16	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 11:16	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/02/21 20:58	02/04/21 11:16	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 11:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130	02/02/21 20:58	02/04/21 11:16	1
4-Bromofluorobenzene (Surr)	100		70 - 130	02/02/21 20:58	02/04/21 11:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2720		99.6	mg/Kg			02/02/21 23:58	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 19:44	1
Gasoline Range Hydrocarbons (GRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 19:44	1
Motor Oil Range Hydrocarbons (MRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 19:44	1
Total TPH	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 19:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69		70 - 135	02/05/21 12:00	02/05/21 19:44	1
o-Terphenyl	85		70 - 135	02/05/21 12:00	02/05/21 19:44	1

Client Sample ID: FS57

Lab Sample ID: 890-117-18

Date Collected: 02/01/21 10:17

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 11:39	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 11:39	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 11:39	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 11:39	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 11:39	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		02/02/21 20:58	02/04/21 11:39	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/02/21 20:58	02/04/21 11:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	02/02/21 20:58	02/04/21 11:39	1
4-Bromofluorobenzene (Surr)	96		70 - 130	02/02/21 20:58	02/04/21 11:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1490		99.4	mg/Kg			02/03/21 00:03	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:06	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS57

Lab Sample ID: 890-117-18

Date Collected: 02/01/21 10:17

Matrix: Solid

Date Received: 02/01/21 15:57

Method: SW8015-MOD - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:06	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:06	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 135				02/05/21 12:00	02/05/21 20:06	1
o-Terphenyl	84		70 - 135				02/05/21 12:00	02/05/21 20:06	1

Client Sample ID: FS58

Lab Sample ID: 890-117-19

Date Collected: 02/01/21 10:19

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 12:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 12:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 12:01	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 12:01	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 12:01	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/02/21 20:58	02/04/21 12:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/02/21 20:58	02/04/21 12:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	107		70 - 130			02/02/21 20:58	02/04/21 12:01	1
4-Bromofluorobenzene (Surr)	100		70 - 130			02/02/21 20:58	02/04/21 12:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9420		100	mg/Kg			02/03/21 00:09	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:27	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:27	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:27	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 20:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	68		70 - 135				02/05/21 12:00	02/05/21 20:27	1
o-Terphenyl	87		70 - 135				02/05/21 12:00	02/05/21 20:27	1

Client Sample ID: FS59

Lab Sample ID: 890-117-20

Date Collected: 02/01/21 10:21

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 12:24	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 12:24	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 12:24	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 12:24	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 12:24	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS59

Lab Sample ID: 890-117-20

Date Collected: 02/01/21 10:21

Matrix: Solid

Date Received: 02/01/21 15:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/02/21 20:58	02/04/21 12:24	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/02/21 20:58	02/04/21 12:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130			02/02/21 20:58	02/04/21 12:24	1
4-Bromofluorobenzene (Surr)	103		70 - 130			02/02/21 20:58	02/04/21 12:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5430		101	mg/Kg			02/03/21 00:15	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 20:49	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 20:49	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 20:49	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 20:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 135				02/05/21 12:00	02/05/21 20:49	1
o-Terphenyl	89		70 - 135				02/05/21 12:00	02/05/21 20:49	1

Client Sample ID: FS60

Lab Sample ID: 890-117-21

Date Collected: 02/01/21 10:24

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 15:52	1
Ethylbenzene	<0.00200	U F1	0.00200	mg/Kg		02/04/21 10:03	02/04/21 15:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 15:52	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 15:52	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 15:52	1
m,p-Xylenes	<0.00399	U F1	0.00399	mg/Kg		02/04/21 10:03	02/04/21 15:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 15:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130			02/04/21 10:03	02/04/21 15:52	1
4-Bromofluorobenzene (Surr)	97		70 - 130			02/04/21 10:03	02/04/21 15:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2370		99.0	mg/Kg			02/03/21 00:49	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:30	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:30	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:30	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 12:30	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS60

Date Collected: 02/01/21 10:24

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-21

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 135	02/05/21 12:00	02/05/21 12:30	1
o-Terphenyl	87		70 - 135	02/05/21 12:00	02/05/21 12:30	1

Client Sample ID: FS61

Date Collected: 02/01/21 10:25

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-22

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 16:59	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 16:59	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 16:59	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 16:59	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 16:59	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/04/21 10:03	02/04/21 16:59	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 16:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130			02/04/21 10:03	02/04/21 16:59	1
4-Bromofluorobenzene (Surr)	102		70 - 130			02/04/21 10:03	02/04/21 16:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3820		101	mg/Kg			02/03/21 01:06	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 13:34	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 13:34	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 13:34	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 13:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 135				02/05/21 12:00	02/05/21 13:34	1
o-Terphenyl	109		70 - 135				02/05/21 12:00	02/05/21 13:34	1

Client Sample ID: FS62

Date Collected: 02/01/21 10:26

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-23

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 17:21	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 17:21	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 17:21	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 17:21	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 17:21	1
m,p-Xylenes	<0.00404	U	0.00404	mg/Kg		02/04/21 10:03	02/04/21 17:21	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 17:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	111		70 - 130			02/04/21 10:03	02/04/21 17:21	

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS62

Lab Sample ID: 890-117-23

Date Collected: 02/01/21 10:26

Matrix: Solid

Date Received: 02/01/21 15:57

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	02/04/21 10:03	02/04/21 17:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1680		99.4	mg/Kg			02/03/21 01:12	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 13:56	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 13:56	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 13:56	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 135	02/05/21 12:00	02/05/21 13:56	1
o-Terphenyl	98		70 - 135	02/05/21 12:00	02/05/21 13:56	1

Client Sample ID: FS63

Lab Sample ID: 890-117-24

Date Collected: 02/01/21 10:28

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 17:44	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 17:44	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 17:44	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 17:44	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 17:44	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/04/21 10:03	02/04/21 17:44	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	109		70 - 130	02/04/21 10:03	02/04/21 17:44	1
4-Bromofluorobenzene (Surr)	106		70 - 130	02/04/21 10:03	02/04/21 17:44	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	821		101	mg/Kg			02/03/21 01:17	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:17	1
Gasoline Range Hydrocarbons (GRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:17	1
Motor Oil Range Hydrocarbons (MRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:17	1
Total TPH	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 14:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 135	02/05/21 12:00	02/05/21 14:17	1
o-Terphenyl	94		70 - 135	02/05/21 12:00	02/05/21 14:17	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS64

Lab Sample ID: 890-117-25

Date Collected: 02/01/21 10:29

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 18:06	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 18:06	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 18:06	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 18:06	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 18:06	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/04/21 10:03	02/04/21 18:06	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 18:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	107		70 - 130	02/04/21 10:03	02/04/21 18:06	1
4-Bromofluorobenzene (Surr)	107		70 - 130	02/04/21 10:03	02/04/21 18:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3060		101	mg/Kg			02/03/21 01:23	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:39	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:39	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:39	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 14:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 135	02/05/21 12:00	02/05/21 14:39	1
o-Terphenyl	98		70 - 135	02/05/21 12:00	02/05/21 14:39	1

Client Sample ID: FS65

Lab Sample ID: 890-117-26

Date Collected: 02/01/21 10:31

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 18:51	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 18:51	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 18:51	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 18:51	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 18:51	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/04/21 10:03	02/04/21 18:51	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 18:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130	02/04/21 10:03	02/04/21 18:51	1
4-Bromofluorobenzene (Surr)	102		70 - 130	02/04/21 10:03	02/04/21 18:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3610		101	mg/Kg			02/03/21 01:40	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:00	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS65

Lab Sample ID: 890-117-26

Date Collected: 02/01/21 10:31

Matrix: Solid

Date Received: 02/01/21 15:57

Method: SW8015-MOD - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:00	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:00	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 135				02/05/21 12:00	02/05/21 15:00	1
o-Terphenyl	93		70 - 135				02/05/21 12:00	02/05/21 15:00	1

Client Sample ID: FS66

Lab Sample ID: 890-117-27

Date Collected: 02/01/21 10:32

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:14	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:14	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:14	1
Total BTEX	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:14	1
Xylenes, Total	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:14	1
m,p-Xylenes	<0.00397	U	0.00397	mg/Kg		02/04/21 10:03	02/04/21 19:14	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130			02/04/21 10:03	02/04/21 19:14	1
4-Bromofluorobenzene (Surr)	97		70 - 130			02/04/21 10:03	02/04/21 19:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2410		99.6	mg/Kg			02/03/21 01:46	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:24	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:24	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:24	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 15:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 135				02/05/21 12:00	02/05/21 15:24	1
o-Terphenyl	93		70 - 135				02/05/21 12:00	02/05/21 15:24	1

Client Sample ID: FS67

Lab Sample ID: 890-117-28

Date Collected: 02/01/21 10:34

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:36	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:36	1
Toluene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:36	1
Total BTEX	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:36	1
Xylenes, Total	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:36	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS67

Lab Sample ID: 890-117-28

Date Collected: 02/01/21 10:34

Matrix: Solid

Date Received: 02/01/21 15:57

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.00396	U	0.00396	mg/Kg		02/04/21 10:03	02/04/21 19:36	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		02/04/21 10:03	02/04/21 19:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130			02/04/21 10:03	02/04/21 19:36	1
4-Bromofluorobenzene (Surr)	103		70 - 130			02/04/21 10:03	02/04/21 19:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3290		99.6	mg/Kg			02/03/21 01:51	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 15:46	1
Gasoline Range Hydrocarbons (GRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 15:46	1
Motor Oil Range Hydrocarbons (MRO)	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 15:46	1
Total TPH	<49.8		49.8		mg/kg		02/05/21 12:00	02/05/21 15:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 135				02/05/21 12:00	02/05/21 15:46	1
o-Terphenyl	98		70 - 135				02/05/21 12:00	02/05/21 15:46	1

Client Sample ID: FS68

Lab Sample ID: 890-117-29

Date Collected: 02/01/21 10:35

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 19:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 19:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 19:59	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 19:59	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 19:59	1
m,p-Xylenes	<0.00399	U	0.00399	mg/Kg		02/04/21 10:03	02/04/21 19:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 19:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130			02/04/21 10:03	02/04/21 19:59	1
4-Bromofluorobenzene (Surr)	103		70 - 130			02/04/21 10:03	02/04/21 19:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4360		99.2	mg/Kg			02/03/21 01:57	10

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:07	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:07	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:07	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:07	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS68

Date Collected: 02/01/21 10:35

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-29

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 135	02/05/21 12:00	02/05/21 16:07	1
o-Terphenyl	99		70 - 135	02/05/21 12:00	02/05/21 16:07	1

Client Sample ID: FS69

Date Collected: 02/01/21 10:36

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-30

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 20:21	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 20:21	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 20:21	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 20:21	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 20:21	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/04/21 10:03	02/04/21 20:21	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 20:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130			02/04/21 10:03	02/04/21 20:21	1
4-Bromofluorobenzene (Surr)	99		70 - 130			02/04/21 10:03	02/04/21 20:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	530		10.0	mg/Kg			02/03/21 02:03	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:29	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:29	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:29	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 16:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 135				02/05/21 12:00	02/05/21 16:29	1
o-Terphenyl	91		70 - 135				02/05/21 12:00	02/05/21 16:29	1

Client Sample ID: FS70

Date Collected: 02/01/21 10:37

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-31

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 20:43	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 20:43	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 20:43	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 20:43	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 20:43	1
m,p-Xylenes	<0.00403	U	0.00403	mg/Kg		02/04/21 10:03	02/04/21 20:43	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 20:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130			02/04/21 10:03	02/04/21 20:43	

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS70

Lab Sample ID: 890-117-31

Date Collected: 02/01/21 10:37

Matrix: Solid

Date Received: 02/01/21 15:57

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	02/04/21 10:03	02/04/21 20:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	410		10.1	mg/Kg			02/03/21 02:08	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:12	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:12	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:12	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 135	02/05/21 12:00	02/05/21 17:12	1
o-Terphenyl	93		70 - 135	02/05/21 12:00	02/05/21 17:12	1

Client Sample ID: SW17

Lab Sample ID: 890-117-32

Date Collected: 02/01/21 09:19

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:06	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:06	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:06	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:06	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:06	1
m,p-Xylenes	<0.00403	U	0.00403	mg/Kg		02/04/21 10:03	02/04/21 21:06	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130	02/04/21 10:03	02/04/21 21:06	1
4-Bromofluorobenzene (Surr)	100		70 - 130	02/04/21 10:03	02/04/21 21:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	258		9.96	mg/Kg			02/03/21 02:25	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:34	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:34	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:34	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 12:00	02/05/21 17:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 135	02/05/21 12:00	02/05/21 17:34	1
o-Terphenyl	92		70 - 135	02/05/21 12:00	02/05/21 17:34	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: SW19

Lab Sample ID: 890-117-33

Date Collected: 02/01/21 09:17

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 21:28	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 21:28	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 21:28	1
Total BTEX	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 21:28	1
Xylenes, Total	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 21:28	1
m,p-Xylenes	<0.00398	U	0.00398	mg/Kg		02/04/21 10:03	02/04/21 21:28	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/04/21 10:03	02/04/21 21:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130	02/04/21 10:03	02/04/21 21:28	1
4-Bromofluorobenzene (Surr)	102		70 - 130	02/04/21 10:03	02/04/21 21:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	279		10.0	mg/Kg			02/03/21 02:31	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:57	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:57	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:57	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 135	02/05/21 12:00	02/05/21 17:57	1
o-Terphenyl	106		70 - 135	02/05/21 12:00	02/05/21 17:57	1

Client Sample ID: SW28

Lab Sample ID: 890-117-34

Date Collected: 02/01/21 09:27

Matrix: Solid

Date Received: 02/01/21 15:57

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:51	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:51	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:51	1
Total BTEX	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:51	1
Xylenes, Total	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:51	1
m,p-Xylenes	<0.00403	U	0.00403	mg/Kg		02/04/21 10:03	02/04/21 21:51	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/04/21 10:03	02/04/21 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130	02/04/21 10:03	02/04/21 21:51	1
4-Bromofluorobenzene (Surr)	98		70 - 130	02/04/21 10:03	02/04/21 21:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.6		10.1	mg/Kg			02/03/21 02:48	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:18	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: SW28

Date Collected: 02/01/21 09:27

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-34

Matrix: Solid

Method: SW8015-MOD - SW846 8015B TPH ORO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:18	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:18	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 135				02/05/21 12:00	02/05/21 18:18	1
o-Terphenyl	90		70 - 135				02/05/21 12:00	02/05/21 18:18	1

Client Sample ID: SW30

Date Collected: 02/01/21 09:25

Date Received: 02/01/21 15:57

Lab Sample ID: 890-117-35

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 22:13	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 22:13	1
Toluene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 22:13	1
Total BTEX	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 22:13	1
Xylenes, Total	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 22:13	1
m,p-Xylenes	<0.00402	U	0.00402	mg/Kg		02/04/21 10:03	02/04/21 22:13	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		02/04/21 10:03	02/04/21 22:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	105		70 - 130			02/04/21 10:03	02/04/21 22:13	1
4-Bromofluorobenzene (Surr)	102		70 - 130			02/04/21 10:03	02/04/21 22:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.5		9.94	mg/Kg			02/03/21 02:54	1

Method: SW8015-MOD - SW846 8015B TPH ORO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:39	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:39	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:39	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 12:00	02/05/21 18:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 135				02/05/21 12:00	02/05/21 18:39	1
o-Terphenyl	84		70 - 135				02/05/21 12:00	02/05/21 18:39	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Method: 8021B - Volatile Organic Compounds (GC)
Matrix: Solid
Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DFBZ1 (70-130)	BFB1 (70-130)
890-117-1	FS38	104	104
890-117-1 MS	FS38	102	101
890-117-1 MSD	FS38	102	99
890-117-2	FS39	103	104
890-117-3	FS40	104	103
890-117-4	FS41	102	104
890-117-5	FS42	106	106
890-117-6	FS43	106	102
890-117-7	FS44	106	103
890-117-8	FS45	101	106
890-117-9	FS46	108	105
890-117-10	FS47	105	102
890-117-11	FS48	105	101
890-117-12	FS49	107	100
890-117-13	FS50	106	104
890-117-14	FS51	104	102
890-117-15	FS54	102	100
890-117-16	FS55	102	101
890-117-17	FS56	106	100
890-117-18	FS57	101	96
890-117-19	FS58	107	100
890-117-20	FS59	105	103
890-117-21	FS60	105	97
890-117-21 MS	FS60	101	101
890-117-21 MSD	FS60	100	93
890-117-22	FS61	104	102
890-117-23	FS62	111	101
890-117-24	FS63	109	106
890-117-25	FS64	107	107
890-117-26	FS65	106	102
890-117-27	FS66	104	97
890-117-28	FS67	106	103
890-117-29	FS68	106	103
890-117-30	FS69	105	99
890-117-31	FS70	104	98
890-117-32	SW17	104	100
890-117-33	SW19	105	102
890-117-34	SW28	104	98
890-117-35	SW30	105	102
LCS 890-122/2-A	Lab Control Sample	98	97
LCS 890-123/2-A	Lab Control Sample	101	96
LCSD 890-122/3-A	Lab Control Sample Dup	97	94
LCSD 890-123/3-A	Lab Control Sample Dup	101	94
MB 890-122/1-A	Method Blank	108	100
MB 890-123/1-A	Method Blank	104	101

Surrogate Legend

DFBZ = 1,4-Difluorobenzene

BFB = 4-Bromofluorobenzene (Surr)

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Method: SW8015-MOD - SW846 8015B TPH ORO

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO (70-135)	OTPH (70-135)
890-117-1	FS38	69	87
890-117-2	FS39	69	87
890-117-3	FS40	72	88
890-117-4	FS41	70	88
890-117-5	FS42	65	78
890-117-6	FS43	67	82
890-117-7	FS44	64	79
890-117-8	FS45	78	90
890-117-9	FS46	66	81
890-117-10	FS47	69	86
890-117-11	FS48	67	85
890-117-12	FS49	67	85
890-117-13	FS50	69	84
890-117-14	FS51	82	95
890-117-15	FS54	83	99
890-117-16	FS55	69	89
890-117-17	FS56	69	85
890-117-18	FS57	70	84
890-117-19	FS58	68	87
890-117-20	FS59	71	89
890-117-21	FS60	87	87
890-117-22	FS61	106	109
890-117-23	FS62	99	98
890-117-24	FS63	93	94
890-117-25	FS64	97	98
890-117-26	FS65	91	93
890-117-27	FS66	94	93
890-117-28	FS67	101	98
890-117-29	FS68	96	99
890-117-30	FS69	94	91
890-117-31	FS70	95	93
890-117-32	SW17	93	92
890-117-33	SW19	98	106
890-117-34	SW28	89	90
890-117-35	SW30	83	84

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-122/1-A

Matrix: Solid

Analysis Batch: 125

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 122

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 02:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 02:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 02:40	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 02:40	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 02:40	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/02/21 20:58	02/04/21 02:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/02/21 20:58	02/04/21 02:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	108		70 - 130	02/02/21 20:58	02/04/21 02:40	1
4-Bromofluorobenzene (Surr)	100		70 - 130	02/02/21 20:58	02/04/21 02:40	1

Lab Sample ID: LCS 890-122/2-A

Matrix: Solid

Analysis Batch: 125

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09593		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09403		mg/Kg		94	71 - 129
Toluene	0.100	0.09711		mg/Kg		97	70 - 130
m,p-Xylenes	0.200	0.1838		mg/Kg		92	70 - 135
o-Xylene	0.100	0.09575		mg/Kg		96	71 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Difluorobenzene	98		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 890-122/3-A

Matrix: Solid

Analysis Batch: 125

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 122

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09250		mg/Kg		93	70 - 130	4	35
Ethylbenzene	0.100	0.09084		mg/Kg		91	71 - 129	3	35
Toluene	0.100	0.09330		mg/Kg		93	70 - 130	4	35
m,p-Xylenes	0.200	0.1798		mg/Kg		90	70 - 135	2	35
o-Xylene	0.100	0.09233		mg/Kg		92	71 - 133	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene	97		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-117-1 MS

Matrix: Solid

Analysis Batch: 125

Client Sample ID: FS38

Prep Type: Total/NA

Prep Batch: 122

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U	0.100	0.08908		mg/Kg		88	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

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

Lab Sample ID: 890-117-1 MS

Matrix: Solid

Analysis Batch: 125

Client Sample ID: FS38

Prep Type: Total/NA

Prep Batch: 122

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00198	U F1 F2	0.100	0.06620	F1	mg/Kg		66	71 - 129
Toluene	<0.00198	U	0.100	0.08490		mg/Kg		85	70 - 130
m,p-Xylenes	<0.00397	U	0.200	0.1566		mg/Kg		78	70 - 135
o-Xylene	<0.00198	U	0.100	0.08003		mg/Kg		80	71 - 133
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,4-Difluorobenzene	102		70 - 130						
4-Bromofluorobenzene (Surr)	101		70 - 130						

Lab Sample ID: 890-117-1 MSD

Matrix: Solid

Analysis Batch: 125

Client Sample ID: FS38

Prep Type: Total/NA

Prep Batch: 122

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U	0.101	0.08034		mg/Kg		79	70 - 130	10	35
Ethylbenzene	<0.00198	U F1 F2	0.101	0.03165	F1 F2	mg/Kg		31	71 - 129	71	35
Toluene	<0.00198	U	0.101	0.07216		mg/Kg		72	70 - 130	16	35
m,p-Xylenes	<0.00397	U	0.202	0.1409		mg/Kg		70	70 - 135	11	35
o-Xylene	<0.00198	U	0.101	0.07414		mg/Kg		74	71 - 133	8	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1,4-Difluorobenzene	102		70 - 130								
4-Bromofluorobenzene (Surr)	99		70 - 130								

Lab Sample ID: MB 890-123/1-A

Matrix: Solid

Analysis Batch: 145

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 123

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 14:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 14:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 14:44	1
Total BTEX	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 14:44	1
Xylenes, Total	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 14:44	1
m,p-Xylenes	<0.00400	U	0.00400	mg/Kg		02/04/21 10:03	02/04/21 14:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/04/21 10:03	02/04/21 14:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	104		70 - 130			02/04/21 10:03	02/04/21 14:44	1
4-Bromofluorobenzene (Surr)	101		70 - 130			02/04/21 10:03	02/04/21 14:44	1

Lab Sample ID: LCS 890-123/2-A

Matrix: Solid

Analysis Batch: 145

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1015		mg/Kg		102	70 - 130
Ethylbenzene	0.100	0.09908		mg/Kg		99	71 - 129

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

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

Lab Sample ID: LCS 890-123/2-A

Matrix: Solid

Analysis Batch: 145

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	0.100	0.09841		mg/Kg		98	70 - 130
m,p-Xylenes	0.200	0.1951		mg/Kg		98	70 - 135
o-Xylene	0.100	0.09718		mg/Kg		97	71 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Difluorobenzene	101		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 890-123/3-A

Matrix: Solid

Analysis Batch: 145

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 123

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09578		mg/Kg		96	70 - 130	6	35
Ethylbenzene	0.100	0.09083		mg/Kg		91	71 - 129	9	35
Toluene	0.100	0.09396		mg/Kg		94	70 - 130	5	35
m,p-Xylenes	0.200	0.1803		mg/Kg		90	70 - 135	8	35
o-Xylene	0.100	0.09083		mg/Kg		91	71 - 133	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene	101		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-117-21 MS

Matrix: Solid

Analysis Batch: 145

Client Sample ID: FS60

Prep Type: Total/NA

Prep Batch: 123

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.0994	0.08724		mg/Kg		88	70 - 130
Ethylbenzene	<0.00200	U F1	0.0994	0.07451		mg/Kg		75	71 - 129
Toluene	<0.00200	U	0.0994	0.08177		mg/Kg		82	70 - 130
m,p-Xylenes	<0.00399	U F1	0.199	0.1395		mg/Kg		70	70 - 135
o-Xylene	<0.00200	U	0.0994	0.07624		mg/Kg		77	71 - 133

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

Lab Sample ID: 890-117-21 MSD

Matrix: Solid

Analysis Batch: 145

Client Sample ID: FS60

Prep Type: Total/NA

Prep Batch: 123

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00200	U	0.0996	0.08528		mg/Kg		86	70 - 130	2	35
Ethylbenzene	<0.00200	U F1	0.0996	0.06727	F1	mg/Kg		68	71 - 129	10	35
Toluene	<0.00200	U	0.0996	0.07942		mg/Kg		80	70 - 130	3	35
m,p-Xylenes	<0.00399	U F1	0.199	0.1308	F1	mg/Kg		66	70 - 135	6	35
o-Xylene	<0.00200	U	0.0996	0.07608		mg/Kg		76	71 - 133	0	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

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

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,4-Difluorobenzene	100		70 - 130
4-Bromofluorobenzene (Surr)	93		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-114/1-A

Matrix: Solid

Analysis Batch: 116

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			02/02/21 21:24	1

Lab Sample ID: LCS 890-114/2-A

Matrix: Solid

Analysis Batch: 116

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	500	501.4		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 890-114/3-A

Matrix: Solid

Analysis Batch: 116

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	500	508.0		mg/Kg		102	90 - 110	1	20

Lab Sample ID: 890-117-1 MS

Matrix: Solid

Analysis Batch: 116

Client Sample ID: FS38

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	7380		498	7474	4	mg/Kg		19	90 - 110

Lab Sample ID: 890-117-1 MSD

Matrix: Solid

Analysis Batch: 116

Client Sample ID: FS38

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	7380		498	7413	4	mg/Kg		7	90 - 110	1	20

Lab Sample ID: 890-117-11 MS

Matrix: Solid

Analysis Batch: 116

Client Sample ID: FS48

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3530		495	3824	4	mg/Kg		59	90 - 110

Lab Sample ID: 890-117-11 MSD

Matrix: Solid

Analysis Batch: 116

Client Sample ID: FS48

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3530		499	3883	4	mg/Kg		70	90 - 110	2	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 890-115/1-A

Matrix: Solid

Analysis Batch: 117

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			02/03/21 00:32	1

Lab Sample ID: LCS 890-115/2-A

Matrix: Solid

Analysis Batch: 117

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	500	495.1		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 890-115/3-A

Matrix: Solid

Analysis Batch: 117

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	500	485.4		mg/Kg		97	90 - 110	2	20

Lab Sample ID: 890-117-21 MS

Matrix: Solid

Analysis Batch: 117

Client Sample ID: FS60

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2370		497	2681	4	mg/Kg		62	90 - 110

Lab Sample ID: 890-117-21 MSD

Matrix: Solid

Analysis Batch: 117

Client Sample ID: FS60

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2370		503	2682	4	mg/Kg		61	90 - 110	0	20

Lab Sample ID: 890-117-31 MS

Matrix: Solid

Analysis Batch: 117

Client Sample ID: FS70

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	410		501	892.0		mg/Kg		96	90 - 110

Lab Sample ID: 890-117-31 MSD

Matrix: Solid

Analysis Batch: 117

Client Sample ID: FS70

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	410		501	891.7		mg/Kg		96	90 - 110	0	20

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QC Sample Results

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Method: SW8015-MOD - SW846 8015B TPH ORO

Lab Sample ID: 7721003-1-BLK

Matrix: SOIL

Analysis Batch: 3150316

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3150316_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	U		50		mg/kg		02/05/21 12:00	02/05/21 11:26	1
Gasoline Range Hydrocarbons (GRO)	U		50		mg/kg		02/05/21 12:00	02/05/21 11:26	1
Motor Oil Range Hydrocarbons (MRO)	U		50		mg/kg		02/05/21 12:00	02/05/21 11:26	1

Lab Sample ID: 7721003-1-BKS

Matrix: SOIL

Analysis Batch: 3150316

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3150316_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	864		mg/kg		86	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	836		mg/kg		84	70 - 135

Lab Sample ID: 7721003-1-BSD

Matrix: SOIL

Analysis Batch: 3150316

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3150316_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	876		mg/kg		88	70 - 135	1	20
Gasoline Range Hydrocarbons (GRO)	1000	854		mg/kg		85	70 - 135	2	20

Lab Sample ID: 686905-021 S

Matrix: SOIL

Analysis Batch: 3150316

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3150316_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	<49.8		997	921		mg/kg		92	70 - 135
Gasoline Range Hydrocarbons (GRO)	<49.8		997	896		mg/kg		90	70 - 135

Lab Sample ID: 686905-021 SD

Matrix: SOIL

Analysis Batch: 3150316

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3150316_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	<49.8		996	948		mg/kg		95	70 - 135	3	20
Gasoline Range Hydrocarbons (GRO)	<49.8		996	1030		mg/kg		103	70 - 135	14	20

Lab Sample ID: 7721006-1-BLK

Matrix: SOIL

Analysis Batch: 3150320

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3150320_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	U		50		mg/kg		02/05/21 12:00	02/05/21 11:53	1
Gasoline Range Hydrocarbons (GRO)	U		50		mg/kg		02/05/21 12:00	02/05/21 11:53	1
Motor Oil Range Hydrocarbons (MRO)	U		50		mg/kg		02/05/21 12:00	02/05/21 11:53	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Method: SW8015-MOD - SW846 8015B TPH ORO (Continued)

Lab Sample ID: 7721006-1-BKS

Matrix: SOIL

Analysis Batch: 3150320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3150320_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	833		mg/kg		83	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	868		mg/kg		87	70 - 135

Lab Sample ID: 7721006-1-BSD

Matrix: SOIL

Analysis Batch: 3150320

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3150320_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	827		mg/kg		83	70 - 135	1	20
Gasoline Range Hydrocarbons (GRO)	1000	847		mg/kg		85	70 - 135	2	20

Lab Sample ID: 686905-001 S

Matrix: SOIL

Analysis Batch: 3150320

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3150320_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	<49.8		997	812		mg/kg		81	70 - 135
Gasoline Range Hydrocarbons (GRO)	<49.8		997	814		mg/kg		82	70 - 135

Lab Sample ID: 686905-001 SD

Matrix: SOIL

Analysis Batch: 3150320

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3150320_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	<49.8		996	795		mg/kg		80	70 - 135	2	20
Gasoline Range Hydrocarbons (GRO)	<49.8		996	801		mg/kg		80	70 - 135	2	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

GC VOA

Prep Batch: 122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-1	FS38	Total/NA	Solid	5030C	
890-117-2	FS39	Total/NA	Solid	5030C	
890-117-3	FS40	Total/NA	Solid	5030C	
890-117-4	FS41	Total/NA	Solid	5030C	
890-117-5	FS42	Total/NA	Solid	5030C	
890-117-6	FS43	Total/NA	Solid	5030C	
890-117-7	FS44	Total/NA	Solid	5030C	
890-117-8	FS45	Total/NA	Solid	5030C	
890-117-9	FS46	Total/NA	Solid	5030C	
890-117-10	FS47	Total/NA	Solid	5030C	
890-117-11	FS48	Total/NA	Solid	5030C	
890-117-12	FS49	Total/NA	Solid	5030C	
890-117-13	FS50	Total/NA	Solid	5030C	
890-117-14	FS51	Total/NA	Solid	5030C	
890-117-15	FS54	Total/NA	Solid	5030C	
890-117-16	FS55	Total/NA	Solid	5030C	
890-117-17	FS56	Total/NA	Solid	5030C	
890-117-18	FS57	Total/NA	Solid	5030C	
890-117-19	FS58	Total/NA	Solid	5030C	
890-117-20	FS59	Total/NA	Solid	5030C	
MB 890-122/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-122/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-122/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
890-117-1 MS	FS38	Total/NA	Solid	5030C	
890-117-1 MSD	FS38	Total/NA	Solid	5030C	

Prep Batch: 123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-21	FS60	Total/NA	Solid	5030C	
890-117-22	FS61	Total/NA	Solid	5030C	
890-117-23	FS62	Total/NA	Solid	5030C	
890-117-24	FS63	Total/NA	Solid	5030C	
890-117-25	FS64	Total/NA	Solid	5030C	
890-117-26	FS65	Total/NA	Solid	5030C	
890-117-27	FS66	Total/NA	Solid	5030C	
890-117-28	FS67	Total/NA	Solid	5030C	
890-117-29	FS68	Total/NA	Solid	5030C	
890-117-30	FS69	Total/NA	Solid	5030C	
890-117-31	FS70	Total/NA	Solid	5030C	
890-117-32	SW17	Total/NA	Solid	5030C	
890-117-33	SW19	Total/NA	Solid	5030C	
890-117-34	SW28	Total/NA	Solid	5030C	
890-117-35	SW30	Total/NA	Solid	5030C	
MB 890-123/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-123/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-123/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
890-117-21 MS	FS60	Total/NA	Solid	5030C	
890-117-21 MSD	FS60	Total/NA	Solid	5030C	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

GC VOA

Analysis Batch: 125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-1	FS38	Total/NA	Solid	8021B	122
890-117-2	FS39	Total/NA	Solid	8021B	122
890-117-3	FS40	Total/NA	Solid	8021B	122
890-117-4	FS41	Total/NA	Solid	8021B	122
890-117-5	FS42	Total/NA	Solid	8021B	122
890-117-6	FS43	Total/NA	Solid	8021B	122
890-117-7	FS44	Total/NA	Solid	8021B	122
890-117-8	FS45	Total/NA	Solid	8021B	122
890-117-9	FS46	Total/NA	Solid	8021B	122
890-117-10	FS47	Total/NA	Solid	8021B	122
890-117-11	FS48	Total/NA	Solid	8021B	122
890-117-12	FS49	Total/NA	Solid	8021B	122
890-117-13	FS50	Total/NA	Solid	8021B	122
890-117-14	FS51	Total/NA	Solid	8021B	122
890-117-15	FS54	Total/NA	Solid	8021B	122
890-117-16	FS55	Total/NA	Solid	8021B	122
890-117-17	FS56	Total/NA	Solid	8021B	122
890-117-18	FS57	Total/NA	Solid	8021B	122
890-117-19	FS58	Total/NA	Solid	8021B	122
890-117-20	FS59	Total/NA	Solid	8021B	122
MB 890-122/1-A	Method Blank	Total/NA	Solid	8021B	122
LCS 890-122/2-A	Lab Control Sample	Total/NA	Solid	8021B	122
LCSD 890-122/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	122
890-117-1 MS	FS38	Total/NA	Solid	8021B	122
890-117-1 MSD	FS38	Total/NA	Solid	8021B	122

Analysis Batch: 145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-21	FS60	Total/NA	Solid	8021B	123
890-117-22	FS61	Total/NA	Solid	8021B	123
890-117-23	FS62	Total/NA	Solid	8021B	123
890-117-24	FS63	Total/NA	Solid	8021B	123
890-117-25	FS64	Total/NA	Solid	8021B	123
890-117-26	FS65	Total/NA	Solid	8021B	123
890-117-27	FS66	Total/NA	Solid	8021B	123
890-117-28	FS67	Total/NA	Solid	8021B	123
890-117-29	FS68	Total/NA	Solid	8021B	123
890-117-30	FS69	Total/NA	Solid	8021B	123
890-117-31	FS70	Total/NA	Solid	8021B	123
890-117-32	SW17	Total/NA	Solid	8021B	123
890-117-33	SW19	Total/NA	Solid	8021B	123
890-117-34	SW28	Total/NA	Solid	8021B	123
890-117-35	SW30	Total/NA	Solid	8021B	123
MB 890-123/1-A	Method Blank	Total/NA	Solid	8021B	123
LCS 890-123/2-A	Lab Control Sample	Total/NA	Solid	8021B	123
LCSD 890-123/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	123
890-117-21 MS	FS60	Total/NA	Solid	8021B	123
890-117-21 MSD	FS60	Total/NA	Solid	8021B	123

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

HPLC/IC

Leach Batch: 114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-1	FS38	Soluble	Solid	DI Leach	
890-117-2	FS39	Soluble	Solid	DI Leach	
890-117-3	FS40	Soluble	Solid	DI Leach	
890-117-4	FS41	Soluble	Solid	DI Leach	
890-117-5	FS42	Soluble	Solid	DI Leach	
890-117-6	FS43	Soluble	Solid	DI Leach	
890-117-7	FS44	Soluble	Solid	DI Leach	
890-117-8	FS45	Soluble	Solid	DI Leach	
890-117-9	FS46	Soluble	Solid	DI Leach	
890-117-10	FS47	Soluble	Solid	DI Leach	
890-117-11	FS48	Soluble	Solid	DI Leach	
890-117-12	FS49	Soluble	Solid	DI Leach	
890-117-13	FS50	Soluble	Solid	DI Leach	
890-117-14	FS51	Soluble	Solid	DI Leach	
890-117-15	FS54	Soluble	Solid	DI Leach	
890-117-16	FS55	Soluble	Solid	DI Leach	
890-117-17	FS56	Soluble	Solid	DI Leach	
890-117-18	FS57	Soluble	Solid	DI Leach	
890-117-19	FS58	Soluble	Solid	DI Leach	
890-117-20	FS59	Soluble	Solid	DI Leach	
MB 890-114/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-114/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-114/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-117-1 MS	FS38	Soluble	Solid	DI Leach	
890-117-1 MSD	FS38	Soluble	Solid	DI Leach	
890-117-11 MS	FS48	Soluble	Solid	DI Leach	
890-117-11 MSD	FS48	Soluble	Solid	DI Leach	

Leach Batch: 115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-21	FS60	Soluble	Solid	DI Leach	
890-117-22	FS61	Soluble	Solid	DI Leach	
890-117-23	FS62	Soluble	Solid	DI Leach	
890-117-24	FS63	Soluble	Solid	DI Leach	
890-117-25	FS64	Soluble	Solid	DI Leach	
890-117-26	FS65	Soluble	Solid	DI Leach	
890-117-27	FS66	Soluble	Solid	DI Leach	
890-117-28	FS67	Soluble	Solid	DI Leach	
890-117-29	FS68	Soluble	Solid	DI Leach	
890-117-30	FS69	Soluble	Solid	DI Leach	
890-117-31	FS70	Soluble	Solid	DI Leach	
890-117-32	SW17	Soluble	Solid	DI Leach	
890-117-33	SW19	Soluble	Solid	DI Leach	
890-117-34	SW28	Soluble	Solid	DI Leach	
890-117-35	SW30	Soluble	Solid	DI Leach	
MB 890-115/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-115/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-115/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-117-21 MS	FS60	Soluble	Solid	DI Leach	
890-117-21 MSD	FS60	Soluble	Solid	DI Leach	
890-117-31 MS	FS70	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

HPLC/IC (Continued)

Leach Batch: 115 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-31 MSD	FS70	Soluble	Solid	DI Leach	

Analysis Batch: 116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-1	FS38	Soluble	Solid	300.0	114
890-117-2	FS39	Soluble	Solid	300.0	114
890-117-3	FS40	Soluble	Solid	300.0	114
890-117-4	FS41	Soluble	Solid	300.0	114
890-117-5	FS42	Soluble	Solid	300.0	114
890-117-6	FS43	Soluble	Solid	300.0	114
890-117-7	FS44	Soluble	Solid	300.0	114
890-117-8	FS45	Soluble	Solid	300.0	114
890-117-9	FS46	Soluble	Solid	300.0	114
890-117-10	FS47	Soluble	Solid	300.0	114
890-117-11	FS48	Soluble	Solid	300.0	114
890-117-12	FS49	Soluble	Solid	300.0	114
890-117-13	FS50	Soluble	Solid	300.0	114
890-117-14	FS51	Soluble	Solid	300.0	114
890-117-15	FS54	Soluble	Solid	300.0	114
890-117-16	FS55	Soluble	Solid	300.0	114
890-117-17	FS56	Soluble	Solid	300.0	114
890-117-18	FS57	Soluble	Solid	300.0	114
890-117-19	FS58	Soluble	Solid	300.0	114
890-117-20	FS59	Soluble	Solid	300.0	114
MB 890-114/1-A	Method Blank	Soluble	Solid	300.0	114
LCS 890-114/2-A	Lab Control Sample	Soluble	Solid	300.0	114
LCSD 890-114/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	114
890-117-1 MS	FS38	Soluble	Solid	300.0	114
890-117-1 MSD	FS38	Soluble	Solid	300.0	114
890-117-11 MS	FS48	Soluble	Solid	300.0	114
890-117-11 MSD	FS48	Soluble	Solid	300.0	114

Analysis Batch: 117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-21	FS60	Soluble	Solid	300.0	115
890-117-22	FS61	Soluble	Solid	300.0	115
890-117-23	FS62	Soluble	Solid	300.0	115
890-117-24	FS63	Soluble	Solid	300.0	115
890-117-25	FS64	Soluble	Solid	300.0	115
890-117-26	FS65	Soluble	Solid	300.0	115
890-117-27	FS66	Soluble	Solid	300.0	115
890-117-28	FS67	Soluble	Solid	300.0	115
890-117-29	FS68	Soluble	Solid	300.0	115
890-117-30	FS69	Soluble	Solid	300.0	115
890-117-31	FS70	Soluble	Solid	300.0	115
890-117-32	SW17	Soluble	Solid	300.0	115
890-117-33	SW19	Soluble	Solid	300.0	115
890-117-34	SW28	Soluble	Solid	300.0	115
890-117-35	SW30	Soluble	Solid	300.0	115
MB 890-115/1-A	Method Blank	Soluble	Solid	300.0	115
LCS 890-115/2-A	Lab Control Sample	Soluble	Solid	300.0	115

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

HPLC/IC (Continued)

Analysis Batch: 117 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 890-115/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	115
890-117-21 MS	FS60	Soluble	Solid	300.0	115
890-117-21 MSD	FS60	Soluble	Solid	300.0	115
890-117-31 MS	FS70	Soluble	Solid	300.0	115
890-117-31 MSD	FS70	Soluble	Solid	300.0	115

Subcontract

Analysis Batch: 3150316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-21	FS60	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-22	FS61	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-23	FS62	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-24	FS63	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-25	FS64	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-26	FS65	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-27	FS66	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-28	FS67	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-29	FS68	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-30	FS69	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-31	FS70	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-32	SW17	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-33	SW19	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-34	SW28	Total/NA	Solid	SW8015-MOD	3150316_P
890-117-35	SW30	Total/NA	Solid	SW8015-MOD	3150316_P
7721003-1-BLK	Method Blank	Total/NA	SOIL	SW8015-MOD	3150316_P
7721003-1-BKS	Lab Control Sample	Total/NA	SOIL	SW8015-MOD	3150316_P
7721003-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW8015-MOD	3150316_P
686905-021 S	Matrix Spike	Total/NA	SOIL	SW8015-MOD	3150316_P
686905-021 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW8015-MOD	3150316_P

Analysis Batch: 3150320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-1	FS38	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-2	FS39	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-3	FS40	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-4	FS41	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-5	FS42	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-6	FS43	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-7	FS44	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-8	FS45	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-9	FS46	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-10	FS47	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-11	FS48	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-12	FS49	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-13	FS50	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-14	FS51	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-15	FS54	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-16	FS55	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-17	FS56	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-18	FS57	Total/NA	Solid	SW8015-MOD	3150320_P

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Subcontract (Continued)

Analysis Batch: 3150320 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-19	FS58	Total/NA	Solid	SW8015-MOD	3150320_P
890-117-20	FS59	Total/NA	Solid	SW8015-MOD	3150320_P
7721006-1-BLK	Method Blank	Total/NA	SOIL	SW8015-MOD	3150320_P
7721006-1-BKS	Lab Control Sample	Total/NA	SOIL	SW8015-MOD	3150320_P
7721006-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW8015-MOD	3150320_P
686905-001 S	Matrix Spike	Total/NA	SOIL	SW8015-MOD	3150320_P
686905-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW8015-MOD	3150320_P

Prep Batch: 3150316_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-21	FS60	Total/NA	Solid	SW8015P	
890-117-22	FS61	Total/NA	Solid	SW8015P	
890-117-23	FS62	Total/NA	Solid	SW8015P	
890-117-24	FS63	Total/NA	Solid	SW8015P	
890-117-25	FS64	Total/NA	Solid	SW8015P	
890-117-26	FS65	Total/NA	Solid	SW8015P	
890-117-27	FS66	Total/NA	Solid	SW8015P	
890-117-28	FS67	Total/NA	Solid	SW8015P	
890-117-29	FS68	Total/NA	Solid	SW8015P	
890-117-30	FS69	Total/NA	Solid	SW8015P	
890-117-31	FS70	Total/NA	Solid	SW8015P	
890-117-32	SW17	Total/NA	Solid	SW8015P	
890-117-33	SW19	Total/NA	Solid	SW8015P	
890-117-34	SW28	Total/NA	Solid	SW8015P	
890-117-35	SW30	Total/NA	Solid	SW8015P	
7721003-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7721003-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7721003-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
686905-021 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
686905-021 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3150320_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-1	FS38	Total/NA	Solid	SW8015P	
890-117-2	FS39	Total/NA	Solid	SW8015P	
890-117-3	FS40	Total/NA	Solid	SW8015P	
890-117-4	FS41	Total/NA	Solid	SW8015P	
890-117-5	FS42	Total/NA	Solid	SW8015P	
890-117-6	FS43	Total/NA	Solid	SW8015P	
890-117-7	FS44	Total/NA	Solid	SW8015P	
890-117-8	FS45	Total/NA	Solid	SW8015P	
890-117-9	FS46	Total/NA	Solid	SW8015P	
890-117-10	FS47	Total/NA	Solid	SW8015P	
890-117-11	FS48	Total/NA	Solid	SW8015P	
890-117-12	FS49	Total/NA	Solid	SW8015P	
890-117-13	FS50	Total/NA	Solid	SW8015P	
890-117-14	FS51	Total/NA	Solid	SW8015P	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Subcontract (Continued)

Prep Batch: 3150320_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-117-15	FS54	Total/NA	Solid	SW8015P	
890-117-16	FS55	Total/NA	Solid	SW8015P	
890-117-17	FS56	Total/NA	Solid	SW8015P	
890-117-18	FS57	Total/NA	Solid	SW8015P	
890-117-19	FS58	Total/NA	Solid	SW8015P	
890-117-20	FS59	Total/NA	Solid	SW8015P	
7721006-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7721006-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7721006-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
686905-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
686905-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS38

Lab Sample ID: 890-117-1

Date Collected: 02/01/21 09:51

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 03:47	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 21:41	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 12:57	ARM	XM

Client Sample ID: FS39

Lab Sample ID: 890-117-2

Date Collected: 02/01/21 09:52

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 04:55	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 21:58	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 14:01	ARM	XM

Client Sample ID: FS40

Lab Sample ID: 890-117-3

Date Collected: 02/01/21 09:54

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 05:17	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 22:04	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 14:22	ARM	XM

Client Sample ID: FS41

Lab Sample ID: 890-117-4

Date Collected: 02/01/21 09:55

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 05:40	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 22:10	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 14:44	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS42

Lab Sample ID: 890-117-5

Date Collected: 02/01/21 09:56

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 06:02	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 22:15	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 15:05	ARM	XM

Client Sample ID: FS43

Lab Sample ID: 890-117-6

Date Collected: 02/01/21 09:57

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 06:47	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 22:33	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 15:27	ARM	XM

Client Sample ID: FS44

Lab Sample ID: 890-117-7

Date Collected: 02/01/21 09:59

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 07:09	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 22:38	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 15:48	ARM	XM

Client Sample ID: FS45

Lab Sample ID: 890-117-8

Date Collected: 02/01/21 10:01

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 07:32	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		1	116	02/02/21 22:44	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 16:10	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS46

Lab Sample ID: 890-117-9

Date Collected: 02/01/21 10:02

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 07:54	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		1	116	02/02/21 22:50	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 16:31	ARM	XM

Client Sample ID: FS47

Lab Sample ID: 890-117-10

Date Collected: 02/01/21 10:05

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 08:17	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 22:55	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 16:53	ARM	XM

Client Sample ID: FS48

Lab Sample ID: 890-117-11

Date Collected: 02/01/21 10:07

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 08:39	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 23:01	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 17:36	ARM	XM

Client Sample ID: FS49

Lab Sample ID: 890-117-12

Date Collected: 02/01/21 10:08

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 09:01	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 23:18	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 17:57	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS50

Lab Sample ID: 890-117-13

Date Collected: 02/01/21 10:09

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 09:24	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 23:24	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 18:19	ARM	XM

Client Sample ID: FS51

Lab Sample ID: 890-117-14

Date Collected: 02/01/21 10:11

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 09:46	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 23:41	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 18:40	ARM	XM

Client Sample ID: FS54

Lab Sample ID: 890-117-15

Date Collected: 02/01/21 10:13

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 10:09	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 23:46	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 19:01	ARM	XM

Client Sample ID: FS55

Lab Sample ID: 890-117-16

Date Collected: 02/01/21 10:15

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 10:54	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 23:52	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 19:23	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS56

Lab Sample ID: 890-117-17

Date Collected: 02/01/21 10:16

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 11:16	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/02/21 23:58	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 19:44	ARM	XM

Client Sample ID: FS57

Lab Sample ID: 890-117-18

Date Collected: 02/01/21 10:17

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 11:39	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/03/21 00:03	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 20:06	ARM	XM

Client Sample ID: FS58

Lab Sample ID: 890-117-19

Date Collected: 02/01/21 10:19

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 12:01	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/03/21 00:09	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 20:27	ARM	XM

Client Sample ID: FS59

Lab Sample ID: 890-117-20

Date Collected: 02/01/21 10:21

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			122	02/02/21 20:58	MC	XC
Total/NA	Analysis	8021B		1	125	02/04/21 12:24	MC	XC
Soluble	Leach	DI Leach			114	02/02/21 17:44	MC	XC
Soluble	Analysis	300.0		10	116	02/03/21 00:15	MC	XC
Total/NA	Prep	SW8015P		1	3150320_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150320	02/05/21 20:49	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS60

Lab Sample ID: 890-117-21

Date Collected: 02/01/21 10:24

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 15:52	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 00:49	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 12:30	ARM	XM

Client Sample ID: FS61

Lab Sample ID: 890-117-22

Date Collected: 02/01/21 10:25

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 16:59	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:06	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 13:34	ARM	XM

Client Sample ID: FS62

Lab Sample ID: 890-117-23

Date Collected: 02/01/21 10:26

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 17:21	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:12	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 13:56	ARM	XM

Client Sample ID: FS63

Lab Sample ID: 890-117-24

Date Collected: 02/01/21 10:28

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 17:44	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:17	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 14:17	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS64

Lab Sample ID: 890-117-25

Date Collected: 02/01/21 10:29

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 18:06	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:23	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 14:39	ARM	XM

Client Sample ID: FS65

Lab Sample ID: 890-117-26

Date Collected: 02/01/21 10:31

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 18:51	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:40	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 15:00	ARM	XM

Client Sample ID: FS66

Lab Sample ID: 890-117-27

Date Collected: 02/01/21 10:32

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 19:14	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:46	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 15:24	ARM	XM

Client Sample ID: FS67

Lab Sample ID: 890-117-28

Date Collected: 02/01/21 10:34

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 19:36	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:51	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 15:46	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: FS68

Lab Sample ID: 890-117-29

Date Collected: 02/01/21 10:35

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 19:59	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		10	117	02/03/21 01:57	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 16:07	ARM	XM

Client Sample ID: FS69

Lab Sample ID: 890-117-30

Date Collected: 02/01/21 10:36

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 20:21	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		1	117	02/03/21 02:03	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 16:29	ARM	XM

Client Sample ID: FS70

Lab Sample ID: 890-117-31

Date Collected: 02/01/21 10:37

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 20:43	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		1	117	02/03/21 02:08	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 17:12	ARM	XM

Client Sample ID: SW17

Lab Sample ID: 890-117-32

Date Collected: 02/01/21 09:19

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 21:06	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		1	117	02/03/21 02:25	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 17:34	ARM	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Client Sample ID: SW19

Lab Sample ID: 890-117-33

Date Collected: 02/01/21 09:17

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 21:28	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		1	117	02/03/21 02:31	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 17:57	ARM	XM

Client Sample ID: SW28

Lab Sample ID: 890-117-34

Date Collected: 02/01/21 09:27

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 21:51	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		1	117	02/03/21 02:48	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 18:18	ARM	XM

Client Sample ID: SW30

Lab Sample ID: 890-117-35

Date Collected: 02/01/21 09:25

Matrix: Solid

Date Received: 02/01/21 15:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			123	02/04/21 10:03	MC	XC
Total/NA	Analysis	8021B		1	145	02/04/21 22:13	PXS	XC
Soluble	Leach	DI Leach			115	02/02/21 18:04	MC	XC
Soluble	Analysis	300.0		1	117	02/03/21 02:54	A1S	XC
Total/NA	Prep	SW8015P		1	3150316_P	02/05/21 12:00		XM
Total/NA	Analysis	SW8015-MOD		1	3150316	02/05/21 18:39	ARM	XM

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Laboratory: Eurofins Xenco, Carlsbad

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

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	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
8021B	5030C	Solid	Total BTEX

Laboratory: Eurofins Xenco, Midland

The accreditations/certifications listed below are applicable to this report.

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

Eurofins Xenco, Carlsbad

Method Summary

Client: WSP USA Inc.

Job ID: 890-117-1

Project/Site: Columbus Federal 021H & 022H CTB

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XC
300.0	Anions, Ion Chromatography	MCAWW	XC
8015B	SW846 8015B TPH ORO	SW846	XM
5030C	Purge and Trap	SW846	XC
DI Leach	Deionized Water Leaching Procedure	ASTM	XC

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:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-117-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-117-1	FS38	Solid	02/01/21 09:51	02/01/21 15:57	
890-117-2	FS39	Solid	02/01/21 09:52	02/01/21 15:57	
890-117-3	FS40	Solid	02/01/21 09:54	02/01/21 15:57	
890-117-4	FS41	Solid	02/01/21 09:55	02/01/21 15:57	
890-117-5	FS42	Solid	02/01/21 09:56	02/01/21 15:57	
890-117-6	FS43	Solid	02/01/21 09:57	02/01/21 15:57	
890-117-7	FS44	Solid	02/01/21 09:59	02/01/21 15:57	
890-117-8	FS45	Solid	02/01/21 10:01	02/01/21 15:57	
890-117-9	FS46	Solid	02/01/21 10:02	02/01/21 15:57	
890-117-10	FS47	Solid	02/01/21 10:05	02/01/21 15:57	
890-117-11	FS48	Solid	02/01/21 10:07	02/01/21 15:57	
890-117-12	FS49	Solid	02/01/21 10:08	02/01/21 15:57	
890-117-13	FS50	Solid	02/01/21 10:09	02/01/21 15:57	
890-117-14	FS51	Solid	02/01/21 10:11	02/01/21 15:57	
890-117-15	FS54	Solid	02/01/21 10:13	02/01/21 15:57	
890-117-16	FS55	Solid	02/01/21 10:15	02/01/21 15:57	
890-117-17	FS56	Solid	02/01/21 10:16	02/01/21 15:57	
890-117-18	FS57	Solid	02/01/21 10:17	02/01/21 15:57	
890-117-19	FS58	Solid	02/01/21 10:19	02/01/21 15:57	
890-117-20	FS59	Solid	02/01/21 10:21	02/01/21 15:57	
890-117-21	FS60	Solid	02/01/21 10:24	02/01/21 15:57	
890-117-22	FS61	Solid	02/01/21 10:25	02/01/21 15:57	
890-117-23	FS62	Solid	02/01/21 10:26	02/01/21 15:57	
890-117-24	FS63	Solid	02/01/21 10:28	02/01/21 15:57	
890-117-25	FS64	Solid	02/01/21 10:29	02/01/21 15:57	
890-117-26	FS65	Solid	02/01/21 10:31	02/01/21 15:57	
890-117-27	FS66	Solid	02/01/21 10:32	02/01/21 15:57	
890-117-28	FS67	Solid	02/01/21 10:34	02/01/21 15:57	
890-117-29	FS68	Solid	02/01/21 10:35	02/01/21 15:57	
890-117-30	FS69	Solid	02/01/21 10:36	02/01/21 15:57	
890-117-31	FS70	Solid	02/01/21 10:37	02/01/21 15:57	
890-117-32	SW17	Solid	02/01/21 09:19	02/01/21 15:57	
890-117-33	SW19	Solid	02/01/21 09:17	02/01/21 15:57	
890-117-34	SW28	Solid	02/01/21 09:27	02/01/21 15:57	
890-117-35	SW30	Solid	02/01/21 09:25	02/01/21 15:57	

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Chain of Custody

Work Order No: _____

Project Manager: Kalel Jennings

Bill to: (if different) Ike Tavaroz

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, kalel.jennings@wsp.com, itavaroz@concho.com

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Spill ☐
 State of Project: ☐
 Reporting Level: I ☐ II ☐ III ☐ IV ☐
 Deliverables: EDD ☐ ADAPT ☐ Other: ☐

Project Name: Columbus Federal 021H & 022H CTB

Turn Around

ANALYSIS REQUEST

Work Order Notes

Project Number: 31402909.01

Routine

P.O. Number: Lea

Rush:

Sampler's Name: William Mather

Due Date:

SAMPLE RECEIPT

Temp Blank ☒ Yes ☐ No Wet Ice: ☒ Yes ☐ No

Temperature (°C): 24/2-2 Thermometer ID: TMM-003

Received In tact: Yes ☒ No ☐ Correction Factor: -0.2Cooler Custody Seals: Yes ☒ No ☐ Total Containers: 1Sample Custody Seals: Yes ☒ No ☐ Total Containers: 1

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)	Sample Comments
FS38	S	2/1/2021	9:51	4'	1	X	X	X	Composite
FS39	S	2/1/2021	9:52	4'	1	X	X	X	Composite
FS40	S	2/1/2021	9:54	4'	1	X	X	X	Composite
FS41	S	2/1/2021	9:55	4'	1	X	X	X	Composite
FS42	S	2/1/2021	9:56	4'	1	X	X	X	Composite
FS43	S	2/1/2021	9:57	4'	1	X	X	X	Composite
FS44	S	2/1/2021	9:59	4'	1	X	X	X	Composite
FS45	S	2/1/2021	10:01	4'	1	X	X	X	Composite
FS46	S	2/1/2021	10:02	4'	1	X	X	X	Composite
FS47	S	2/1/2021	10:05	4'	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 Ti Sn U V Zn

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

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7474 Hg

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Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

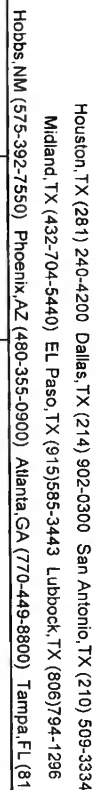
Date/Time



890-117 Chain of Custody

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

Sample Comments



Chain of Custody

Work Order No:

Page 2 of 4

2/8/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavaraz
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.maitner@wsp.com, kalei.jennings@wsp.com, itavaraz@concho.com

Work Order Comments				
Program: UST/PST	☐ RP	☐ Growthfields	☐ RC	☐ Perfund
State of Project:				
Reporting Level II	☐ Level III	☐ ST/UST	☐ RP	☐ Level IV
Deliverables: EDD	☐	ADAPT	☐	Other:

[illegible][illegible]

Total 200.7 / 6010	200.8 / 6020:	Circle Method(s) and Metal(s) to be analyzed
8RCRA 13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K se Ag SiO ₂ Na Sr II Sn U V Zn
TCLP / SPLP 6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
		1631 / 245.1 / 7470 / 7471 : Hg

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		2-1-21 1557			

Revised Date 05/11/18 Rev. 2018



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Work Order No: _____
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Chain of Custody

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavaraz
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, itavaraz@concho.com

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:	Columbus Federal 021H & 022H CTB	Turn Around	
Project Number:	31402909.01	Routine	
P.O. Number:	Lea	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		Correction Factor:		
Cooler Custody Seals:	Yes	No	N/A	Total Containers:		
Sample Custody Seals:	Yes	No	N/A			

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (EPA 8015)	BTEX (EPA 8015)	Chloride (EPA 8015)	Sample Comments												
FS60					S	2/1/2021	10:24	4'	1	X	X	X	Composite												
FS61					S	2/1/2021	10:25	4'	1	X	X	X	Composite												
FS62					S	2/1/2021	10:26	4'	1	X	X	X	Composite												
FS63					S	2/1/2021	10:28	4'	1	X	X	X	Composite												
FS64					S	2/1/2021	10:29	4'	1	X	X	X	Composite												
FS65					S	2/1/2021	10:31	4'	1	X	X	X	Composite												
FS66					S	2/1/2021	10:32	4'	1	X	X	X	Composite												
FS67					S	2/1/2021	10:34	4'	1	X	X	X	Composite												
FS68					S	2/1/2021	10:35	4'	1	X	X	X	Composite												
FS69					S	2/1/2021	10:36	4'	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 Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471, Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	2-12-21 15:57			



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Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)
Hobbs, NM (575-382-7550)

Chain of Custody

Work Order No:

2/8/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavaréz
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, itavaréz@concho.com

Work Order Comments									
Program: UST/ST		☐ RP	☐ Growfields	☐ RC	☐ \$perfund	☐			
State of Project:									
Reporting Level II		☐ Level III	☐ ST/UST	☐ RP	☐ Level IV	☐			
Deliverables: EDD		☐	ADAPT	☐	Other:				

Project Name:	Columbus Federal 021H & 022H CTB	Turn Around
Project Number:	31402909-01	Routine
P.O. Number:	Lea	Rush:
Sampler's Name:	William Mather	Due Date:

SAMPLE RECEIPT					
	Temp Blank:	Yes	No	Wettest:	Yes No
Temperature ($^{\circ}$C):		Yes	No	Thermometer ID	
Received Intact:		Yes	No		
Cooler Custody Seals:		Yes	No N/A	Correction Factor:	
Sample Custody Seals:		Yes	No N/A	Total Containers:	

[illegible][illegible]

Total 200.7 / 6010 200.8 / 6020:

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Na Sr H Sh O V Zr
1631 / 245.1 / 7470 / 7471 : Hg

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		21.21.1557			

Revised Date 05/14/18 Rev 2018

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-117-1

SDG Number:

Login Number: 117

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-134-1

Laboratory Sample Delivery Group: 31402909.01

Client Project/Site: Columbus Federal 021H & 022H CTB

For:

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

Attn: Kalei Jennings

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

Authorized for release by:
2/8/2021 8:24:03 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Laboratory Job ID: 890-134-1
SDG: 31402909.01

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Qualifiers

GC 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: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Job ID: 890-134-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-134-1

Receipt

The samples were received on 2/3/2021 2:20 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

GC 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.

Subcontract Lab non-Sister Lab

See attached subcontract report.

Detection Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Client Sample ID: SW25**Lab Sample ID: 890-134-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	82.2		9.98		mg/Kg	1		300.0	Soluble

Client Sample ID: SW15**Lab Sample ID: 890-134-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	73.5		9.90		mg/Kg	1		300.0	Soluble

Client Sample ID: SW20**Lab Sample ID: 890-134-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	355		9.92		mg/Kg	1		300.0	Soluble

Client Sample ID: SW22**Lab Sample ID: 890-134-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19.5		9.98		mg/Kg	1		300.0	Soluble

Client Sample ID: SW23**Lab Sample ID: 890-134-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	136		9.90		mg/Kg	1		300.0	Soluble

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Client Sample ID: SW25

Lab Sample ID: 890-134-1

Date Collected: 02/02/21 09:48

Matrix: Solid

Date Received: 02/03/21 14:20

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		02/03/21 19:53	02/05/21 12:13	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		02/03/21 19:53	02/05/21 12:13	1
Toluene	<0.00201	U	0.00201		mg/Kg		02/03/21 19:53	02/05/21 12:13	1
Total BTEX	<0.00201	U	0.00201		mg/Kg		02/03/21 19:53	02/05/21 12:13	1
Xylenes, Total	<0.00201	U	0.00201		mg/Kg		02/03/21 19:53	02/05/21 12:13	1
m,p-Xylenes	<0.00402	U	0.00402		mg/Kg		02/03/21 19:53	02/05/21 12:13	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		02/03/21 19:53	02/05/21 12:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	98		70 - 130	02/03/21 19:53	02/05/21 12:13	1
4-Bromofluorobenzene (Surr)	103		70 - 130	02/03/21 19:53	02/05/21 12:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.2		9.98		mg/Kg			02/03/21 22:25	1

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.3		50.3		mg/kg		02/05/21 16:14	02/07/21 21:47	1
Gasoline Range Hydrocarbons (GRO)	<50.3		50.3		mg/kg		02/05/21 16:14	02/07/21 21:47	1
Motor Oil Range Hydrocarbons (MRO)	<50.3		50.3		mg/kg		02/05/21 16:14	02/07/21 21:47	1
Total TPH	<50.3		50.3		mg/kg		02/05/21 16:14	02/07/21 21:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 135	02/05/21 16:14	02/07/21 21:47	1
o-Terphenyl	127		70 - 135	02/05/21 16:14	02/07/21 21:47	1

Client Sample ID: SW15

Lab Sample ID: 890-134-2

Date Collected: 02/02/21 09:58

Matrix: Solid

Date Received: 02/03/21 14:20

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		02/03/21 19:53	02/05/21 12:36	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/21 19:53	02/05/21 12:36	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/21 19:53	02/05/21 12:36	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/03/21 19:53	02/05/21 12:36	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/03/21 19:53	02/05/21 12:36	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/03/21 19:53	02/05/21 12:36	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/21 19:53	02/05/21 12:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	97		70 - 130	02/03/21 19:53	02/05/21 12:36	1
4-Bromofluorobenzene (Surr)	109		70 - 130	02/03/21 19:53	02/05/21 12:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	73.5		9.90		mg/Kg			02/03/21 22:42	1

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 17:05	02/05/21 23:19	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Client Sample ID: SW15

Lab Sample ID: 890-134-2

Date Collected: 02/02/21 09:58

Matrix: Solid

Date Received: 02/03/21 14:20

Method: TPH SW8015_MOD - SW846 8015B DRO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 17:05	02/05/21 23:19	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 17:05	02/05/21 23:19	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 17:05	02/05/21 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	73		70 - 135				02/05/21 17:05	02/05/21 23:19	1
o-Terphenyl	109		70 - 135				02/05/21 17:05	02/05/21 23:19	1

Client Sample ID: SW20

Lab Sample ID: 890-134-3

Date Collected: 02/02/21 13:05

Matrix: Solid

Date Received: 02/03/21 14:20

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		02/03/21 19:53	02/05/21 12:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/03/21 19:53	02/05/21 12:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/03/21 19:53	02/05/21 12:58	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		02/03/21 19:53	02/05/21 12:58	1
Xylenes, Total	<0.00198	U	0.00198		mg/Kg		02/03/21 19:53	02/05/21 12:58	1
m,p-Xylenes	<0.00396	U	0.00396		mg/Kg		02/03/21 19:53	02/05/21 12:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/03/21 19:53	02/05/21 12:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130				02/03/21 19:53	02/05/21 12:58	1
4-Bromofluorobenzene (Surr)	104		70 - 130				02/03/21 19:53	02/05/21 12:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	355		9.92		mg/Kg			02/03/21 22:48	1

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.6		49.6		mg/kg		02/05/21 17:14	02/06/21 00:20	1
Gasoline Range Hydrocarbons (GRO)	<49.6		49.6		mg/kg		02/05/21 17:14	02/06/21 00:20	1
Motor Oil Range Hydrocarbons (MRO)	<49.6		49.6		mg/kg		02/05/21 17:14	02/06/21 00:20	1
Total TPH	<49.6		49.6		mg/kg		02/05/21 17:14	02/06/21 00:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 135				02/05/21 17:14	02/06/21 00:20	1
o-Terphenyl	112		70 - 135				02/05/21 17:14	02/06/21 00:20	1

Client Sample ID: SW22

Lab Sample ID: 890-134-4

Date Collected: 02/02/21 13:12

Matrix: Solid

Date Received: 02/03/21 14:20

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		02/03/21 19:53	02/05/21 13:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:21	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:21	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:21	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Client Sample ID: SW22

Lab Sample ID: 890-134-4

Date Collected: 02/02/21 13:12

Matrix: Solid

Date Received: 02/03/21 14:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/21 19:53	02/05/21 13:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	96		70 - 130				02/03/21 19:53	02/05/21 13:21	1
4-Bromofluorobenzene (Surr)	105		70 - 130				02/03/21 19:53	02/05/21 13:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.5		9.98		mg/Kg			02/03/21 23:05	1

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0		50.0		mg/kg		02/05/21 17:17	02/06/21 00:40	1
Gasoline Range Hydrocarbons (GRO)	<50.0		50.0		mg/kg		02/05/21 17:17	02/06/21 00:40	1
Motor Oil Range Hydrocarbons (MRO)	<50.0		50.0		mg/kg		02/05/21 17:17	02/06/21 00:40	1
Total TPH	<50.0		50.0		mg/kg		02/05/21 17:17	02/06/21 00:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 135				02/05/21 17:17	02/06/21 00:40	1
o-Terphenyl	109		70 - 135				02/05/21 17:17	02/06/21 00:40	1

Client Sample ID: SW23

Lab Sample ID: 890-134-5

Date Collected: 02/02/21 14:30

Matrix: Solid

Date Received: 02/03/21 14:20

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		02/03/21 19:53	02/05/21 13:43	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:43	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:43	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:43	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:43	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/03/21 19:53	02/05/21 13:43	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 13:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130				02/03/21 19:53	02/05/21 13:43	1
4-Bromofluorobenzene (Surr)	108		70 - 130				02/03/21 19:53	02/05/21 13:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	136		9.90		mg/Kg			02/03/21 23:11	1

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.5		49.5		mg/kg		02/05/21 17:20	02/06/21 01:00	1
Gasoline Range Hydrocarbons (GRO)	<49.5		49.5		mg/kg		02/05/21 17:20	02/06/21 01:00	1
Motor Oil Range Hydrocarbons (MRO)	<49.5		49.5		mg/kg		02/05/21 17:20	02/06/21 01:00	1
Total TPH	<49.5		49.5		mg/kg		02/05/21 17:20	02/06/21 01:00	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Client Sample ID: SW23**Lab Sample ID: 890-134-5****Date Collected: 02/02/21 14:30****Matrix: Solid****Date Received: 02/03/21 14:20**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 135	02/05/21 17:20	02/06/21 01:00	1
o-Terphenyl	92		70 - 135	02/05/21 17:20	02/06/21 01:00	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DFBZ1 (70-130)	BFB1 (70-130)
890-130-A-1-C MS	Matrix Spike	98	100
890-134-1	SW25	98	103
890-134-2	SW15	97	109
890-134-3	SW20	102	104
890-134-4	SW22	96	105
890-134-5	SW23	102	108
LCS 890-134/2-A	Lab Control Sample	97	95
LCSD 890-134/3-A	Lab Control Sample Dup	99	99
MB 890-134/1-A	Method Blank	98	111
Surrogate Legend			
DFBZ = 1,4-Difluorobenzene			
BFB = 4-Bromofluorobenzene (Surr)			

Method: TPH SW8015_MOD - SW846 8015B DRO

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-134-1	SW25	84	127
890-134-2	SW15	73	109
890-134-3	SW20	76	112
890-134-4	SW22	71	109
890-134-5	SW23	77	92
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-134/1-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 134

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 06:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 06:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 06:48	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 06:48	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 06:48	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/21 19:53	02/05/21 06:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 19:53	02/05/21 06:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	98		70 - 130	02/03/21 19:53	02/05/21 06:48	1
4-Bromofluorobenzene (Surr)	111		70 - 130	02/03/21 19:53	02/05/21 06:48	1

Lab Sample ID: LCS 890-134/2-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 134

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09494		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.09299		mg/Kg		93	71 - 129
Toluene	0.100	0.09355		mg/Kg		94	70 - 130
m,p-Xylenes	0.200	0.1846		mg/Kg		92	70 - 135
o-Xylene	0.100	0.09335		mg/Kg		93	71 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Difluorobenzene	97		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 890-134/3-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 134

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1002		mg/Kg		100	70 - 130	5	35
Ethylbenzene	0.100	0.09780		mg/Kg		98	71 - 129	5	35
Toluene	0.100	0.09930		mg/Kg		99	70 - 130	6	35
m,p-Xylenes	0.200	0.1894		mg/Kg		95	70 - 135	3	35
o-Xylene	0.100	0.09894		mg/Kg		99	71 - 133	6	35

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

Lab Sample ID: 890-130-A-1-C MS

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 134

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1 F2	0.101	0.09884		mg/Kg		98	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

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

Lab Sample ID: 890-130-A-1-C MS

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 134

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1 F2	0.101	0.09728		mg/Kg		96	71 - 129
Toluene	<0.00199	U F1 F2	0.101	0.09699		mg/Kg		96	70 - 130
m,p-Xylenes	<0.00398	U F1 F2	0.202	0.1928		mg/Kg		96	70 - 135
o-Xylene	<0.00199	U F1 F2	0.101	0.09796		mg/Kg		97	71 - 133
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,4-Difluorobenzene	98		70 - 130						
4-Bromofluorobenzene (Surr)	100		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-133/1-A

Matrix: Solid

Analysis Batch: 137

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			02/03/21 20:49	1

Lab Sample ID: LCS 890-133/2-A

Matrix: Solid

Analysis Batch: 137

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	500	496.2		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 890-133/3-A

Matrix: Solid

Analysis Batch: 137

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	500	493.5		mg/Kg		99	90 - 110	1	20

Lab Sample ID: 890-134-1 MS

Matrix: Solid

Analysis Batch: 137

Client Sample ID: SW25

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	82.2		500	588.7		mg/Kg		101	90 - 110

Lab Sample ID: 890-134-1 MSD

Matrix: Solid

Analysis Batch: 137

Client Sample ID: SW25

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	82.2		499	551.1		mg/Kg		94	90 - 110	7	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Method: TPH SW8015_MOD - SW846 8015B DRO

Lab Sample ID: 7720915-1-BLK

Matrix: SOIL

Analysis Batch: 3150253

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3150253_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	U		50		mg/kg		02/05/21 16:56	02/05/21 22:18	1
Gasoline Range Hydrocarbons (GRO)	U		50		mg/kg		02/05/21 16:56	02/05/21 22:18	1
Motor Oil Range Hydrocarbons (MRO)	U		50		mg/kg		02/05/21 16:56	02/05/21 22:18	1

Lab Sample ID: 7720915-1-BKS

Matrix: SOIL

Analysis Batch: 3150253

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3150253_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	1050		mg/kg		105	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	997		mg/kg		100	70 - 135

Lab Sample ID: 7720915-1-BSD

Matrix: SOIL

Analysis Batch: 3150253

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3150253_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	1030		mg/kg		103	70 - 135	2	35
Gasoline Range Hydrocarbons (GRO)	1000	1040		mg/kg		104	70 - 135	4	35

Lab Sample ID: 687542-002 S

Matrix: SOIL

Analysis Batch: 3150253

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3150253_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	<49.9		995	1010		mg/kg		102	70 - 135
Gasoline Range Hydrocarbons (GRO)	<49.9		995	1100		mg/kg		111	70 - 135

Lab Sample ID: 687542-002 SD

Matrix: SOIL

Analysis Batch: 3150253

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3150253_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	<49.9		997	950		mg/kg		95	70 - 135	6	35
Gasoline Range Hydrocarbons (GRO)	<49.9		997	1040		mg/kg		104	70 - 135	6	35

Lab Sample ID: 7720913-1-BLK

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	U		50		mg/kg		02/05/21 16:05	02/07/21 19:29	1
Gasoline Range Hydrocarbons (GRO)	U		50		mg/kg		02/05/21 16:05	02/07/21 19:29	1
Motor Oil Range Hydrocarbons (MRO)	U		50		mg/kg		02/05/21 16:05	02/07/21 19:29	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Method: TPH SW8015_MOD - SW846 8015B DRO (Continued)

Lab Sample ID: 7720913-1-BKS

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	1020		mg/kg		102	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	959		mg/kg		96	70 - 135

Lab Sample ID: 7720913-1-BSD

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	1120		mg/kg		112	70 - 135	9	35
Gasoline Range Hydrocarbons (GRO)	1000	1070		mg/kg		107	70 - 135	11	35

Lab Sample ID: 687542-001 S

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	<50.4		1010	1180		mg/kg		117	70 - 135
Gasoline Range Hydrocarbons (GRO)	<50.4		1010	896		mg/kg		89	70 - 135

Lab Sample ID: 687542-001 SD

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	<50.4		1010	1190		mg/kg		118	70 - 135	1	35
Gasoline Range Hydrocarbons (GRO)	<50.4		1010	975		mg/kg		97	70 - 135	8	35

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

GC VOA

Prep Batch: 134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-1	SW25	Total/NA	Solid	5030C	
890-134-2	SW15	Total/NA	Solid	5030C	
890-134-3	SW20	Total/NA	Solid	5030C	
890-134-4	SW22	Total/NA	Solid	5030C	
890-134-5	SW23	Total/NA	Solid	5030C	
MB 890-134/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-134/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-134/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
890-130-A-1-C MS	Matrix Spike	Total/NA	Solid	5030C	

Analysis Batch: 146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-1	SW25	Total/NA	Solid	8021B	134
890-134-2	SW15	Total/NA	Solid	8021B	134
890-134-3	SW20	Total/NA	Solid	8021B	134
890-134-4	SW22	Total/NA	Solid	8021B	134
890-134-5	SW23	Total/NA	Solid	8021B	134
MB 890-134/1-A	Method Blank	Total/NA	Solid	8021B	134
LCS 890-134/2-A	Lab Control Sample	Total/NA	Solid	8021B	134
LCSD 890-134/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	134
890-130-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	134

HPLC/IC

Leach Batch: 133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-1	SW25	Soluble	Solid	DI Leach	
890-134-2	SW15	Soluble	Solid	DI Leach	
890-134-3	SW20	Soluble	Solid	DI Leach	
890-134-4	SW22	Soluble	Solid	DI Leach	
890-134-5	SW23	Soluble	Solid	DI Leach	
MB 890-133/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-133/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-133/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-134-1 MS	SW25	Soluble	Solid	DI Leach	
890-134-1 MSD	SW25	Soluble	Solid	DI Leach	

Analysis Batch: 137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-1	SW25	Soluble	Solid	300.0	133
890-134-2	SW15	Soluble	Solid	300.0	133
890-134-3	SW20	Soluble	Solid	300.0	133
890-134-4	SW22	Soluble	Solid	300.0	133
890-134-5	SW23	Soluble	Solid	300.0	133
MB 890-133/1-A	Method Blank	Soluble	Solid	300.0	133
LCS 890-133/2-A	Lab Control Sample	Soluble	Solid	300.0	133
LCSD 890-133/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	133
890-134-1 MS	SW25	Soluble	Solid	300.0	133
890-134-1 MSD	SW25	Soluble	Solid	300.0	133

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Subcontract

Analysis Batch: 3150253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-2	SW15	Total/NA	Solid	TPH	3150253_P
890-134-3	SW20	Total/NA	Solid	SW8015_MOD TPH	3150253_P
890-134-4	SW22	Total/NA	Solid	SW8015_MOD TPH	3150253_P
890-134-5	SW23	Total/NA	Solid	SW8015_MOD TPH	3150253_P
7720915-1-BLK	Method Blank	Total/NA	SOIL	SW8015_MOD TPH	3150253_P
7720915-1-BKS	Lab Control Sample	Total/NA	SOIL	SW8015_MOD TPH	3150253_P
7720915-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW8015_MOD TPH	3150253_P
687542-002 S	Matrix Spike	Total/NA	SOIL	SW8015_MOD TPH	3150253_P
687542-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW8015_MOD TPH	3150253_P

Analysis Batch: 3150309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-1	SW25	Total/NA	Solid	TPH	3150309_P
7720913-1-BLK	Method Blank	Total/NA	SOIL	SW8015_MOD TPH	3150309_P
7720913-1-BKS	Lab Control Sample	Total/NA	SOIL	SW8015_MOD TPH	3150309_P
7720913-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW8015_MOD TPH	3150309_P
687542-001 S	Matrix Spike	Total/NA	SOIL	SW8015_MOD TPH	3150309_P
687542-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW8015_MOD TPH	3150309_P

Prep Batch: 3150253_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-2	SW15	Total/NA	Solid	SW8015P	
890-134-3	SW20	Total/NA	Solid	SW8015P	
890-134-4	SW22	Total/NA	Solid	SW8015P	
890-134-5	SW23	Total/NA	Solid	SW8015P	
7720915-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7720915-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7720915-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
687542-002 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
687542-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3150309_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-134-1	SW25	Total/NA	Solid	SW8015P	
7720913-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Subcontract (Continued)**Prep Batch: 3150309_P (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
7720913-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7720913-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
687542-001 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
687542-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Client Sample ID: SW25

Lab Sample ID: 890-134-1

Date Collected: 02/02/21 09:48

Matrix: Solid

Date Received: 02/03/21 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			134	02/03/21 19:53	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 12:13	PXS	XC
Soluble	Leach	DI Leach			133	02/03/21 17:27	MC	XC
Soluble	Analysis	300.0		1	137	02/03/21 22:25	MC	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 16:14		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/07/21 21:47	ISU	XS

Client Sample ID: SW15

Lab Sample ID: 890-134-2

Date Collected: 02/02/21 09:58

Matrix: Solid

Date Received: 02/03/21 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			134	02/03/21 19:53	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 12:36	PXS	XC
Soluble	Leach	DI Leach			133	02/03/21 17:27	MC	XC
Soluble	Analysis	300.0		1	137	02/03/21 22:42	MC	XC
Total/NA	Prep	SW8015P		1	3150253_P	02/05/21 17:05		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150253	02/05/21 23:19	ISU	XS

Client Sample ID: SW20

Lab Sample ID: 890-134-3

Date Collected: 02/02/21 13:05

Matrix: Solid

Date Received: 02/03/21 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			134	02/03/21 19:53	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 12:58	PXS	XC
Soluble	Leach	DI Leach			133	02/03/21 17:27	MC	XC
Soluble	Analysis	300.0		1	137	02/03/21 22:48	MC	XC
Total/NA	Prep	SW8015P		1	3150253_P	02/05/21 17:14		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150253	02/06/21 00:20	ISU	XS

Client Sample ID: SW22

Lab Sample ID: 890-134-4

Date Collected: 02/02/21 13:12

Matrix: Solid

Date Received: 02/03/21 14:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			134	02/03/21 19:53	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 13:21	PXS	XC
Soluble	Leach	DI Leach			133	02/03/21 17:27	MC	XC
Soluble	Analysis	300.0		1	137	02/03/21 23:05	MC	XC
Total/NA	Prep	SW8015P		1	3150253_P	02/05/21 17:17		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150253	02/06/21 00:40	ISU	XS

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Client Sample ID: SW23**Lab Sample ID: 890-134-5****Date Collected: 02/02/21 14:30****Matrix: Solid****Date Received: 02/03/21 14:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			134	02/03/21 19:53	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 13:43	PXS	XC
Soluble	Leach	DI Leach			133	02/03/21 17:27	MC	XC
Soluble	Analysis	300.0		1	137	02/03/21 23:11	MC	XC
Total/NA	Prep	SW8015P		1	3150253_P	02/05/21 17:20		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150253	02/06/21 01:00	ISU	XS

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

XS = Eurofins Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Laboratory: Eurofins Xenco, Carlsbad

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	06-30-21

Laboratory: Eurofins Stafford

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-20-37	06-30-21

Eurofins Xenco, Carlsbad

Method Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XC
300.0	Anions, Ion Chromatography	MCAWW	XC
8015B	SW846 8015B DRO	SW846	XS
5030C	Purge and Trap	SW846	XC
DI Leach	Deionized Water Leaching Procedure	ASTM	XC

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:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

XS = Eurofins Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Sample Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-134-1
SDG: 31402909.01

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-134-1	SW25	Solid	02/02/21 09:48	02/03/21 14:20	
890-134-2	SW15	Solid	02/02/21 09:58	02/03/21 14:20	
890-134-3	SW20	Solid	02/02/21 13:05	02/03/21 14:20	
890-134-4	SW22	Solid	02/02/21 13:12	02/03/21 14:20	
890-134-5	SW23	Solid	02/02/21 14:30	02/03/21 14:20	



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)585-4443 Lubbock, TX (806)794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)
Hobbs, NM (575-392-5550)

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Chain of Custody

Work Order No:

2/8/2021

Project Manager:	Kalei Jennings	Bill to: (if different)	Ike Tavaraz
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, itavaraz@concho.com

Work Order Comments									
Program: UST/PT	☐ RP	☐ Growfields	☐ RC	☐ Spurfund	☐				
State of Project:									
Reporting Level II	☐ Level III	☐ PT/UST	☐ RP	☐ Level IV	☐				
Deliverables: EDD	☐	ADAPT	☐	Other:					

Project Name:	Columbus Federal 021H & 022H CTB	Turn Around:
Project Number:	31402909.01	Route: ☒
P.O. Number:	Lea	Rush: ☐
Sampler's Name:	William Mather	Due Date:

SAMPLE RECEIPT				Temp Blank:	☒ Yes	☐ No	Wet Ice:	☒ Yes	☐ No
Temperature (°C):	1.0/0.8			Thermometer ID					
Received intact:	☒ Yes ☐ No			7MM-003					
Cooler Custody Seals:	Yes ☐ No ☒			Correction Factor:			-0.2		
Sample Custody Seals:	Yes ☒ No ☐			Total Containers:					

Number of Containers		ANALYSIS REQUEST	WORK ORDER NOTES
EPA 8015)			
EPA 0=8021)			
le (EPA 300.0)			
TAT starts the day received by the lab, if received by 4:30pm			

[illegible]

890-134 Chain of Custody

Total 200.7 / 6010 200.8 / 6020:

TCLP / SPLP	6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U
8RCRA	13PPM	Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K se Ag SiO ₂	
			Na Sr II Sn U v Zn

1631 / 245.1 / 7470 / 7471 : Hg

Notwithstanding to this document and relinquishment of samples constitutes a valid purchase order from client company to Xencio, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xencio 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 Xencio. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xencio, 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
		1335 2/3/21			080327 14

Revised Date 051418 Rev 201

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-134-1

SDG Number: 31402909.01

Login Number: 134

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-139-1

Laboratory Sample Delivery Group: 3140209.01

Client Project/Site: Columbus Federal 021H & 022H CTB

For:

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

Attn: Kalei Jennings

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

Authorized for release by:
2/8/2021 8:35:23 PM

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

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

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

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Laboratory Job ID: 890-139-1
SDG: 3140209.01

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Job ID: 890-139-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-139-1

Receipt

The samples were received on 2/3/2021 3:56 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 890-136 and analytical batch 890-146 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC

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

Subcontract Lab non-Sister Lab

See attached subcontract report.

Detection Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS18

Lab Sample ID: 890-139-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1700		49.7		mg/Kg	5		300.0	Soluble

Client Sample ID: FS19

Lab Sample ID: 890-139-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1100		49.8		mg/Kg	5		300.0	Soluble

Client Sample ID: FS52

Lab Sample ID: 890-139-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5330		49.9		mg/Kg	5		300.0	Soluble

Client Sample ID: FS53

Lab Sample ID: 890-139-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	679		10.0		mg/Kg	1		300.0	Soluble

Client Sample ID: FS71

Lab Sample ID: 890-139-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2370		56.9		mg/Kg	5		300.0	Soluble

Client Sample ID: FS72

Lab Sample ID: 890-139-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	941		50.0		mg/Kg	5		300.0	Soluble

Client Sample ID: FS73

Lab Sample ID: 890-139-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3880		49.8		mg/Kg	5		300.0	Soluble

Client Sample ID: FS74

Lab Sample ID: 890-139-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	621		9.90		mg/Kg	1		300.0	Soluble

Client Sample ID: FS75

Lab Sample ID: 890-139-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4430		50.1		mg/Kg	5		300.0	Soluble

Client Sample ID: FS76

Lab Sample ID: 890-139-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	792		49.6		mg/Kg	5		300.0	Soluble

Client Sample ID: FS77

Lab Sample ID: 890-139-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3340		49.8		mg/Kg	5		300.0	Soluble
Diesel Range Organics (DRO)	116		49.6		mg/kg	1		TPH SW8015_MOD	Total/NA
Total TPH	116		49.6		mg/kg	1		TPH SW8015_MOD	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS18

Lab Sample ID: 890-139-1

Date Collected: 02/03/21 12:39

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:01	02/05/21 05:12	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:12	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:12	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:12	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:12	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/03/21 20:01	02/05/21 05:12	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	97		70 - 130	02/03/21 20:01	02/05/21 05:12	1
4-Bromofluorobenzene (Surr)	104		70 - 130	02/03/21 20:01	02/05/21 05:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1700		49.7		mg/Kg			02/04/21 20:08	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.3		50.3		mg/kg		02/05/21 16:47	02/07/21 21:28	1
Gasoline Range Hydrocarbons (GRO)	<50.3		50.3		mg/kg		02/05/21 16:47	02/07/21 21:28	1
Motor Oil Range Hydrocarbons (MRO)	<50.3		50.3		mg/kg		02/05/21 16:47	02/07/21 21:28	1
Total TPH	<50.3		50.3		mg/kg		02/05/21 16:47	02/07/21 21:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 135	02/05/21 16:47	02/07/21 21:28	1
o-Terphenyl	144		70 - 135	02/05/21 16:47	02/07/21 21:28	1

Client Sample ID: FS19

Lab Sample ID: 890-139-2

Date Collected: 02/03/21 12:40

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:01	02/05/21 05:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:34	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:34	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:34	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/03/21 20:01	02/05/21 05:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:01	02/05/21 05:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	02/03/21 20:01	02/05/21 05:34	1
4-Bromofluorobenzene (Surr)	101		70 - 130	02/03/21 20:01	02/05/21 05:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1100		49.8		mg/Kg			02/04/21 20:14	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.7		49.7		mg/kg		02/05/21 16:50	02/08/21 13:58	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS19

Lab Sample ID: 890-139-2

Date Collected: 02/03/21 12:40

Matrix: Solid

Date Received: 02/03/21 15:56

Method: TPH SW8015_MOD - SW846 8015B DRO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<49.7		49.7		mg/kg		02/05/21 16:50	02/08/21 13:58	1
Motor Oil Range Hydrocarbons (MRO)	<49.7		49.7		mg/kg		02/05/21 16:50	02/08/21 13:58	1
Total TPH	<49.7		49.7		mg/kg		02/05/21 16:50	02/08/21 13:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 135				02/05/21 16:50	02/08/21 13:58	1
o-Terphenyl	156		70 - 135				02/05/21 16:50	02/08/21 13:58	1

Client Sample ID: FS52

Lab Sample ID: 890-139-3

Date Collected: 02/03/21 13:07

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:01	02/05/21 05:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:01	02/05/21 05:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:01	02/05/21 05:56	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		02/03/21 20:01	02/05/21 05:56	1
Xylenes, Total	<0.00199	U	0.00199		mg/Kg		02/03/21 20:01	02/05/21 05:56	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/21 20:01	02/05/21 05:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:01	02/05/21 05:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130				02/03/21 20:01	02/05/21 05:56	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/03/21 20:01	02/05/21 05:56	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5330		49.9		mg/Kg			02/04/21 20:19	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.7		49.7		mg/kg		02/05/21 16:53	02/07/21 22:29	1
Gasoline Range Hydrocarbons (GRO)	<49.7		49.7		mg/kg		02/05/21 16:53	02/07/21 22:29	1
Motor Oil Range Hydrocarbons (MRO)	<49.7		49.7		mg/kg		02/05/21 16:53	02/07/21 22:29	1
Total TPH	<49.7		49.7		mg/kg		02/05/21 16:53	02/07/21 22:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	76		70 - 135				02/05/21 16:53	02/07/21 22:29	1
o-Terphenyl	125		70 - 135				02/05/21 16:53	02/07/21 22:29	1

Client Sample ID: FS53

Lab Sample ID: 890-139-4

Date Collected: 02/03/21 13:09

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:06	02/05/21 21:13	1
Ethylbenzene	<0.00200	U F1 F2	0.00200		mg/Kg		02/03/21 20:06	02/05/21 21:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 21:13	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 21:13	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 21:13	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS53

Lab Sample ID: 890-139-4

Date Collected: 02/03/21 13:09

Matrix: Solid

Date Received: 02/03/21 15:56

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylenes	<0.00399	U F1	0.00399		mg/Kg		02/03/21 20:06	02/05/21 21:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 21:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	103		70 - 130				02/03/21 20:06	02/05/21 21:13	1
4-Bromofluorobenzene (Surr)	110		70 - 130				02/03/21 20:06	02/05/21 21:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	679		10.0		mg/Kg			02/04/21 20:36	1

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.5		49.5		mg/kg		02/05/21 16:56	02/08/21 02:13	1
Gasoline Range Hydrocarbons (GRO)	<49.5		49.5		mg/kg		02/05/21 16:56	02/08/21 02:13	1
Motor Oil Range Hydrocarbons (MRO)	<49.5		49.5		mg/kg		02/05/21 16:56	02/08/21 02:13	1
Total TPH	<49.5		49.5		mg/kg		02/05/21 16:56	02/08/21 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 135				02/05/21 16:56	02/08/21 02:13	1
o-Terphenyl	122		70 - 135				02/05/21 16:56	02/08/21 02:13	1

Client Sample ID: FS71

Lab Sample ID: 890-139-5

Date Collected: 02/03/21 10:45

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:06	02/05/21 22:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 22:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 22:21	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 22:21	1
Xylenes, Total	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 22:21	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/21 20:06	02/05/21 22:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 22:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	99		70 - 130				02/03/21 20:06	02/05/21 22:21	1
4-Bromofluorobenzene (Surr)	101		70 - 130				02/03/21 20:06	02/05/21 22:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2370		56.9		mg/Kg			02/04/21 20:42	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8		49.8		mg/kg		02/05/21 16:59	02/07/21 22:50	1
Gasoline Range Hydrocarbons (GRO)	<49.8		49.8		mg/kg		02/05/21 16:59	02/07/21 22:50	1
Motor Oil Range Hydrocarbons (MRO)	<49.8		49.8		mg/kg		02/05/21 16:59	02/07/21 22:50	1
Total TPH	<49.8		49.8		mg/kg		02/05/21 16:59	02/07/21 22:50	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS71

Lab Sample ID: 890-139-5

Date Collected: 02/03/21 10:45

Matrix: Solid

Date Received: 02/03/21 15:56

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 135	02/05/21 16:59	02/07/21 22:50	1
o-Terphenyl	120		70 - 135	02/05/21 16:59	02/07/21 22:50	1

Client Sample ID: FS72

Lab Sample ID: 890-139-6

Date Collected: 02/03/21 10:46

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:06	02/05/21 22:43	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/05/21 22:43	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/05/21 22:43	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/05/21 22:43	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/05/21 22:43	1
m,p-Xylenes	<0.00404	U	0.00404		mg/Kg		02/03/21 20:06	02/05/21 22:43	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/05/21 22:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	98		70 - 130				02/03/21 20:06	02/05/21 22:43	1
4-Bromofluorobenzene (Surr)	105		70 - 130				02/03/21 20:06	02/05/21 22:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	941		50.0		mg/Kg			02/04/21 20:59	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.5		50.5		mg/kg		02/05/21 17:02	02/08/21 17:16	1
Gasoline Range Hydrocarbons (GRO)	<50.5		50.5		mg/kg		02/05/21 17:02	02/08/21 17:16	1
Motor Oil Range Hydrocarbons (MRO)	<50.5		50.5		mg/kg		02/05/21 17:02	02/08/21 17:16	1
Total TPH	<50.5		50.5		mg/kg		02/05/21 17:02	02/08/21 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 135				02/05/21 17:02	02/08/21 17:16	1
o-Terphenyl	106		70 - 135				02/05/21 17:02	02/08/21 17:16	1

Client Sample ID: FS73

Lab Sample ID: 890-139-7

Date Collected: 02/03/21 10:47

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:06	02/05/21 23:05	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 23:05	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 23:05	1
Total BTEX	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 23:05	1
Xylenes, Total	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 23:05	1
m,p-Xylenes	<0.00398	U	0.00398		mg/Kg		02/03/21 20:06	02/05/21 23:05	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/03/21 20:06	02/05/21 23:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	100		70 - 130				02/03/21 20:06	02/05/21 23:05	

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS73

Lab Sample ID: 890-139-7

Date Collected: 02/03/21 10:47

Matrix: Solid

Date Received: 02/03/21 15:56

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	02/03/21 20:06	02/05/21 23:05	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3880		49.8		mg/Kg			02/04/21 21:05	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 17:05	02/07/21 23:11	1
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 17:05	02/07/21 23:11	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 17:05	02/07/21 23:11	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 17:05	02/07/21 23:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 135	02/05/21 17:05	02/07/21 23:11	1
o-Terphenyl	121		70 - 135	02/05/21 17:05	02/07/21 23:11	1

Client Sample ID: FS74

Lab Sample ID: 890-139-8

Date Collected: 02/03/21 10:52

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:06	02/05/21 23:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 23:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 23:28	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 23:28	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 23:28	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/03/21 20:06	02/05/21 23:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 23:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	99		70 - 130	02/03/21 20:06	02/05/21 23:28	1
4-Bromofluorobenzene (Surr)	105		70 - 130	02/03/21 20:06	02/05/21 23:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	621		9.90		mg/Kg			02/04/21 21:11	1

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.5		49.5		mg/kg		02/05/21 17:08	02/08/21 15:37	1
Gasoline Range Hydrocarbons (GRO)	<49.5		49.5		mg/kg		02/05/21 17:08	02/08/21 15:37	1
Motor Oil Range Hydrocarbons (MRO)	<49.5		49.5		mg/kg		02/05/21 17:08	02/08/21 15:37	1
Total TPH	<49.5		49.5		mg/kg		02/05/21 17:08	02/08/21 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 135	02/05/21 17:08	02/08/21 15:37	1
o-Terphenyl	112		70 - 135	02/05/21 17:08	02/08/21 15:37	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS75

Lab Sample ID: 890-139-9

Date Collected: 02/03/21 10:53

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:06	02/06/21 00:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/06/21 00:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/06/21 00:13	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/06/21 00:13	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/06/21 00:13	1
m,p-Xylenes	<0.00401	U	0.00401		mg/Kg		02/03/21 20:06	02/06/21 00:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/06/21 00:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	103		70 - 130	02/03/21 20:06	02/06/21 00:13	1
4-Bromofluorobenzene (Surr)	109		70 - 130	02/03/21 20:06	02/06/21 00:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4430		50.1		mg/Kg			02/04/21 21:16	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.6		49.6		mg/kg		02/05/21 17:11	02/07/21 23:31	1
Gasoline Range Hydrocarbons (GRO)	<49.6		49.6		mg/kg		02/05/21 17:11	02/07/21 23:31	1
Motor Oil Range Hydrocarbons (MRO)	<49.6		49.6		mg/kg		02/05/21 17:11	02/07/21 23:31	1
Total TPH	<49.6		49.6		mg/kg		02/05/21 17:11	02/07/21 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 135	02/05/21 17:11	02/07/21 23:31	1
o-Terphenyl	130		70 - 135	02/05/21 17:11	02/07/21 23:31	1

Client Sample ID: FS76

Lab Sample ID: 890-139-10

Date Collected: 02/03/21 10:54

Matrix: Solid

Date Received: 02/03/21 15:56

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		02/03/21 20:06	02/06/21 00:35	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/06/21 00:35	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/06/21 00:35	1
Total BTEX	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/06/21 00:35	1
Xylenes, Total	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/06/21 00:35	1
m,p-Xylenes	<0.00403	U	0.00403		mg/Kg		02/03/21 20:06	02/06/21 00:35	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/03/21 20:06	02/06/21 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	02/03/21 20:06	02/06/21 00:35	1
4-Bromofluorobenzene (Surr)	107		70 - 130	02/03/21 20:06	02/06/21 00:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	792		49.6		mg/Kg			02/04/21 21:22	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.9		49.9		mg/kg		02/05/21 17:14	02/08/21 14:18	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS76

Date Collected: 02/03/21 10:54

Date Received: 02/03/21 15:56

Lab Sample ID: 890-139-10

Matrix: Solid

Method: TPH SW8015_MOD - SW846 8015B DRO (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons (GRO)	<49.9		49.9		mg/kg		02/05/21 17:14	02/08/21 14:18	1
Motor Oil Range Hydrocarbons (MRO)	<49.9		49.9		mg/kg		02/05/21 17:14	02/08/21 14:18	1
Total TPH	<49.9		49.9		mg/kg		02/05/21 17:14	02/08/21 14:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 135				02/05/21 17:14	02/08/21 14:18	1
o-Terphenyl	154		70 - 135				02/05/21 17:14	02/08/21 14:18	1

Client Sample ID: FS77

Date Collected: 02/03/21 10:56

Date Received: 02/03/21 15:56

Lab Sample ID: 890-139-11

Matrix: Solid

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		02/03/21 20:06	02/06/21 00:58	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		02/03/21 20:06	02/06/21 00:58	1
Toluene	<0.00198	U	0.00198		mg/Kg		02/03/21 20:06	02/06/21 00:58	1
Total BTEX	<0.00198	U	0.00198		mg/Kg		02/03/21 20:06	02/06/21 00:58	1
Xylenes, Total	<0.00198	U	0.00198		mg/Kg		02/03/21 20:06	02/06/21 00:58	1
m,p-Xylenes	<0.00397	U	0.00397		mg/Kg		02/03/21 20:06	02/06/21 00:58	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		02/03/21 20:06	02/06/21 00:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	103		70 - 130				02/03/21 20:06	02/06/21 00:58	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/03/21 20:06	02/06/21 00:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3340		49.8		mg/Kg			02/04/21 21:28	5

Method: TPH SW8015_MOD - SW846 8015B DRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	116		49.6		mg/kg		02/05/21 17:17	02/08/21 14:38	1
Gasoline Range Hydrocarbons (GRO)	<49.6		49.6		mg/kg		02/05/21 17:17	02/08/21 14:38	1
Motor Oil Range Hydrocarbons (MRO)	<49.6		49.6		mg/kg		02/05/21 17:17	02/08/21 14:38	1
Total TPH	116		49.6		mg/kg		02/05/21 17:17	02/08/21 14:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 135				02/05/21 17:17	02/08/21 14:38	1
o-Terphenyl	153		70 - 135				02/05/21 17:17	02/08/21 14:38	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DFBZ1 (70-130)	BFB1 (70-130)
890-139-1	FS18	97	104
890-139-2	FS19	101	101
890-139-3	FS52	102	106
890-139-4	FS53	103	110
890-139-4 MS	FS53	100	100
890-139-4 MSD	FS53	98	96
890-139-5	FS71	99	101
890-139-6	FS72	98	105
890-139-7	FS73	100	104
890-139-8	FS74	99	105
890-139-9	FS75	103	109
890-139-10	FS76	101	107
890-139-11	FS77	103	106
LCS 890-135/2-A	Lab Control Sample	94	95
LCS 890-136/2-A	Lab Control Sample	97	97
LCSD 890-135/3-A	Lab Control Sample Dup	96	94
LCSD 890-136/3-A	Lab Control Sample Dup	94	96
MB 890-135/1-A	Method Blank	99	100
MB 890-136/1-A	Method Blank	102	103

Surrogate Legend

DFBZ = 1,4-Difluorobenzene

BFB = 4-Bromofluorobenzene (Surr)

Method: TPH SW8015_MOD - SW846 8015B DRO

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-139-1	FS18	98	144
890-139-2	FS19	102	156
890-139-3	FS52	76	125
890-139-4	FS53	75	122
890-139-5	FS71	86	120
890-139-6	FS72	109	106
890-139-7	FS73	78	121
890-139-8	FS74	125	112
890-139-9	FS75	101	130
890-139-10	FS76	105	154
890-139-11	FS77	106	153

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-135/1-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 135

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/21 20:01	02/04/21 19:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:01	02/04/21 19:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	99		70 - 130	02/03/21 20:01	02/04/21 19:25	1
4-Bromofluorobenzene (Surr)	100		70 - 130	02/03/21 20:01	02/04/21 19:25	1

Lab Sample ID: LCS 890-135/2-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 135

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09222		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.09531		mg/Kg		95	71 - 129
Toluene	0.100	0.09397		mg/Kg		94	70 - 130
m,p-Xylenes	0.200	0.1855		mg/Kg		93	70 - 135
o-Xylene	0.100	0.09259		mg/Kg		93	71 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Difluorobenzene	94		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 890-135/3-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 135

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09560		mg/Kg		96	70 - 130	4	35
Ethylbenzene	0.100	0.09322		mg/Kg		93	71 - 129	2	35
Toluene	0.100	0.09098		mg/Kg		91	70 - 130	3	35
m,p-Xylenes	0.200	0.1897		mg/Kg		95	70 - 135	2	35
o-Xylene	0.100	0.09249		mg/Kg		92	71 - 133	0	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene	96		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130

Lab Sample ID: MB 890-136/1-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 136

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 20:06	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

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

Lab Sample ID: MB 890-136/1-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 136

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 20:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 20:06	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 20:06	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 20:06	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/03/21 20:06	02/05/21 20:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/03/21 20:06	02/05/21 20:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130	02/03/21 20:06	02/05/21 20:06	1
4-Bromofluorobenzene (Surr)	103		70 - 130	02/03/21 20:06	02/05/21 20:06	1

Lab Sample ID: LCS 890-136/2-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 136

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09769		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.09480		mg/Kg		95	71 - 129
Toluene	0.100	0.09539		mg/Kg		95	70 - 130
m,p-Xylenes	0.200	0.1870		mg/Kg		94	70 - 135
o-Xylene	0.100	0.09692		mg/Kg		97	71 - 133

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

Lab Sample ID: LCSD 890-136/3-A

Matrix: Solid

Analysis Batch: 146

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 136

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09775		mg/Kg		98	70 - 130	0	35
Ethylbenzene	0.100	0.09646		mg/Kg		96	71 - 129	2	35
Toluene	0.100	0.09628		mg/Kg		96	70 - 130	1	35
m,p-Xylenes	0.200	0.1919		mg/Kg		96	70 - 135	3	35
o-Xylene	0.100	0.09522		mg/Kg		95	71 - 133	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene	94		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-139-4 MS

Matrix: Solid

Analysis Batch: 146

Client Sample ID: FS53

Prep Type: Total/NA

Prep Batch: 136

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.101	0.09904		mg/Kg		98	70 - 130
Ethylbenzene	<0.00200	U F1 F2	0.101	0.02129	F1	mg/Kg		21	71 - 129

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

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

Lab Sample ID: 890-139-4 MS

Matrix: Solid

Analysis Batch: 146

Client Sample ID: FS53

Prep Type: Total/NA

Prep Batch: 136

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00200	U	0.101	0.07812		mg/Kg		77	70 - 130
m,p-Xylenes	<0.00399	U F1	0.202	0.1412		mg/Kg		70	70 - 135
o-Xylene	<0.00200	U	0.101	0.09511		mg/Kg		94	71 - 133

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

Lab Sample ID: 890-139-4 MSD

Matrix: Solid

Analysis Batch: 146

Client Sample ID: FS53

Prep Type: Total/NA

Prep Batch: 136

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.00200	U	0.0996	0.09403		mg/Kg		94	70 - 130	5	35
Ethylbenzene	<0.00200	U F1 F2	0.0996	0.03654	F1 F2	mg/Kg		37	71 - 129	53	35
Toluene	<0.00200	U	0.0996	0.07677		mg/Kg		77	70 - 130	2	35
m,p-Xylenes	<0.00399	U F1	0.199	0.1037	F1	mg/Kg		52	70 - 135	31	35
o-Xylene	<0.00200	U	0.0996	0.09398		mg/Kg		94	71 - 133	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,4-Difluorobenzene	98		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-142/1-A

Matrix: Solid

Analysis Batch: 150

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			02/04/21 18:42	1

Lab Sample ID: LCS 890-142/2-A

Matrix: Solid

Analysis Batch: 150

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	500	504.8		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 890-142/3-A

Matrix: Solid

Analysis Batch: 150

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	500	532.0		mg/Kg		106	90 - 110	5	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-139-3 MS

Matrix: Solid

Analysis Batch: 150

Client Sample ID: FS52

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5330		503	5599	4	mg/Kg		54	90 - 110

Lab Sample ID: 890-139-3 MSD

Matrix: Solid

Analysis Batch: 150

Client Sample ID: FS52

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5330		504	5616	4	mg/Kg		57	90 - 110	0	20

Method: TPH SW8015_MOD - SW846 8015B DRO

Lab Sample ID: 7720913-1-BLK

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	U		50		mg/kg		02/05/21 16:05	02/07/21 19:29	1
Gasoline Range Hydrocarbons (GRO)	U		50		mg/kg		02/05/21 16:05	02/07/21 19:29	1
Motor Oil Range Hydrocarbons (MRO)	U		50		mg/kg		02/05/21 16:05	02/07/21 19:29	1

Lab Sample ID: 7720913-1-BKS

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	1020		mg/kg		102	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	959		mg/kg		96	70 - 135

Lab Sample ID: 7720913-1-BSD

Matrix: SOIL

Analysis Batch: 3150309

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3150309_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	1120		mg/kg		112	70 - 135	9	35
Gasoline Range Hydrocarbons (GRO)	1000	1070		mg/kg		107	70 - 135	11	35

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

GC VOA

Prep Batch: 135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-1	FS18	Total/NA	Solid	5030C	
890-139-2	FS19	Total/NA	Solid	5030C	
890-139-3	FS52	Total/NA	Solid	5030C	
MB 890-135/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-135/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-135/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	

Prep Batch: 136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-4	FS53	Total/NA	Solid	5030C	
890-139-5	FS71	Total/NA	Solid	5030C	
890-139-6	FS72	Total/NA	Solid	5030C	
890-139-7	FS73	Total/NA	Solid	5030C	
890-139-8	FS74	Total/NA	Solid	5030C	
890-139-9	FS75	Total/NA	Solid	5030C	
890-139-10	FS76	Total/NA	Solid	5030C	
890-139-11	FS77	Total/NA	Solid	5030C	
MB 890-136/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 890-136/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCSD 890-136/3-A	Lab Control Sample Dup	Total/NA	Solid	5030C	
890-139-4 MS	FS53	Total/NA	Solid	5030C	
890-139-4 MSD	FS53	Total/NA	Solid	5030C	

Analysis Batch: 146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-1	FS18	Total/NA	Solid	8021B	135
890-139-2	FS19	Total/NA	Solid	8021B	135
890-139-3	FS52	Total/NA	Solid	8021B	135
890-139-4	FS53	Total/NA	Solid	8021B	136
890-139-5	FS71	Total/NA	Solid	8021B	136
890-139-6	FS72	Total/NA	Solid	8021B	136
890-139-7	FS73	Total/NA	Solid	8021B	136
890-139-8	FS74	Total/NA	Solid	8021B	136
890-139-9	FS75	Total/NA	Solid	8021B	136
890-139-10	FS76	Total/NA	Solid	8021B	136
890-139-11	FS77	Total/NA	Solid	8021B	136
MB 890-135/1-A	Method Blank	Total/NA	Solid	8021B	135
MB 890-136/1-A	Method Blank	Total/NA	Solid	8021B	136
LCS 890-135/2-A	Lab Control Sample	Total/NA	Solid	8021B	135
LCS 890-136/2-A	Lab Control Sample	Total/NA	Solid	8021B	136
LCSD 890-135/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	135
LCSD 890-136/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	136
890-139-4 MS	FS53	Total/NA	Solid	8021B	136
890-139-4 MSD	FS53	Total/NA	Solid	8021B	136

HPLC/IC

Leach Batch: 142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-1	FS18	Soluble	Solid	DI Leach	
890-139-2	FS19	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

HPLC/IC (Continued)

Leach Batch: 142 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-3	FS52	Soluble	Solid	DI Leach	
890-139-4	FS53	Soluble	Solid	DI Leach	
890-139-5	FS71	Soluble	Solid	DI Leach	
890-139-6	FS72	Soluble	Solid	DI Leach	
890-139-7	FS73	Soluble	Solid	DI Leach	
890-139-8	FS74	Soluble	Solid	DI Leach	
890-139-9	FS75	Soluble	Solid	DI Leach	
890-139-10	FS76	Soluble	Solid	DI Leach	
890-139-11	FS77	Soluble	Solid	DI Leach	
MB 890-142/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-142/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-142/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-139-3 MS	FS52	Soluble	Solid	DI Leach	
890-139-3 MSD	FS52	Soluble	Solid	DI Leach	

Analysis Batch: 150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-1	FS18	Soluble	Solid	300.0	142
890-139-2	FS19	Soluble	Solid	300.0	142
890-139-3	FS52	Soluble	Solid	300.0	142
890-139-4	FS53	Soluble	Solid	300.0	142
890-139-5	FS71	Soluble	Solid	300.0	142
890-139-6	FS72	Soluble	Solid	300.0	142
890-139-7	FS73	Soluble	Solid	300.0	142
890-139-8	FS74	Soluble	Solid	300.0	142
890-139-9	FS75	Soluble	Solid	300.0	142
890-139-10	FS76	Soluble	Solid	300.0	142
890-139-11	FS77	Soluble	Solid	300.0	142
MB 890-142/1-A	Method Blank	Soluble	Solid	300.0	142
LCS 890-142/2-A	Lab Control Sample	Soluble	Solid	300.0	142
LCSD 890-142/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	142
890-139-3 MS	FS52	Soluble	Solid	300.0	142
890-139-3 MSD	FS52	Soluble	Solid	300.0	142

Subcontract

Analysis Batch: 3150309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-1	FS18	Total/NA	Solid	TPH	3150309_P
890-139-2	FS19	Total/NA	Solid	SW8015_MOD TPH	3150309_P
890-139-3	FS52	Total/NA	Solid	SW8015_MOD TPH	3150309_P
890-139-4	FS53	Total/NA	Solid	TPH SW8015_MOD	3150309_P
890-139-5	FS71	Total/NA	Solid	TPH SW8015_MOD	3150309_P
890-139-6	FS72	Total/NA	Solid	TPH SW8015_MOD	3150309_P
890-139-7	FS73	Total/NA	Solid	TPH SW8015_MOD	3150309_P

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Subcontract (Continued)

Analysis Batch: 3150309 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-8	FS74	Total/NA	Solid	TPH	3150309_P
890-139-9	FS75	Total/NA	Solid	SW8015_MOD TPH	3150309_P
890-139-10	FS76	Total/NA	Solid	SW8015_MOD TPH	3150309_P
890-139-11	FS77	Total/NA	Solid	SW8015_MOD TPH	3150309_P
7720913-1-BLK	Method Blank	Total/NA	SOIL	SW8015_MOD TPH	3150309_P
7720913-1-BKS	Lab Control Sample	Total/NA	SOIL	SW8015_MOD TPH	3150309_P
7720913-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW8015_MOD TPH	3150309_P

Prep Batch: 3150309_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-139-1	FS18	Total/NA	Solid	SW8015P	
890-139-2	FS19	Total/NA	Solid	SW8015P	
890-139-3	FS52	Total/NA	Solid	SW8015P	
890-139-4	FS53	Total/NA	Solid	SW8015P	
890-139-5	FS71	Total/NA	Solid	SW8015P	
890-139-6	FS72	Total/NA	Solid	SW8015P	
890-139-7	FS73	Total/NA	Solid	SW8015P	
890-139-8	FS74	Total/NA	Solid	SW8015P	
890-139-9	FS75	Total/NA	Solid	SW8015P	
890-139-10	FS76	Total/NA	Solid	SW8015P	
890-139-11	FS77	Total/NA	Solid	SW8015P	
7720913-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7720913-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7720913-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS18

Lab Sample ID: 890-139-1

Date Collected: 02/03/21 12:39

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			135	02/03/21 20:01	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 05:12	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 20:08	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 16:47		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/07/21 21:28	ISU	XS

Client Sample ID: FS19

Lab Sample ID: 890-139-2

Date Collected: 02/03/21 12:40

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			135	02/03/21 20:01	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 05:34	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 20:14	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 16:50		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/08/21 13:58	ISU	XS

Client Sample ID: FS52

Lab Sample ID: 890-139-3

Date Collected: 02/03/21 13:07

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			135	02/03/21 20:01	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 05:56	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 20:19	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 16:53		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/07/21 22:29	ISU	XS

Client Sample ID: FS53

Lab Sample ID: 890-139-4

Date Collected: 02/03/21 13:09

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 21:13	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		1	150	02/04/21 20:36	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 16:56		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/08/21 02:13	ISU	XS

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS71

Lab Sample ID: 890-139-5

Date Collected: 02/03/21 10:45

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 22:21	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 20:42	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 16:59		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/07/21 22:50	ISU	XS

Client Sample ID: FS72

Lab Sample ID: 890-139-6

Date Collected: 02/03/21 10:46

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 22:43	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 20:59	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 17:02		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/08/21 17:16	ISU	XS

Client Sample ID: FS73

Lab Sample ID: 890-139-7

Date Collected: 02/03/21 10:47

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 23:05	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 21:05	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 17:05		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/07/21 23:11	ISU	XS

Client Sample ID: FS74

Lab Sample ID: 890-139-8

Date Collected: 02/03/21 10:52

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/05/21 23:28	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		1	150	02/04/21 21:11	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 17:08		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/08/21 15:37	ISU	XS

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Client Sample ID: FS75

Lab Sample ID: 890-139-9

Date Collected: 02/03/21 10:53

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/06/21 00:13	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 21:16	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 17:11		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/07/21 23:31	ISU	XS

Client Sample ID: FS76

Lab Sample ID: 890-139-10

Date Collected: 02/03/21 10:54

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/06/21 00:35	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 21:22	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 17:14		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/08/21 14:18	ISU	XS

Client Sample ID: FS77

Lab Sample ID: 890-139-11

Date Collected: 02/03/21 10:56

Matrix: Solid

Date Received: 02/03/21 15:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			136	02/03/21 20:06	MC	XC
Total/NA	Analysis	8021B		1	146	02/06/21 00:58	PXS	XC
Soluble	Leach	DI Leach			142	02/04/21 09:16	MC	XC
Soluble	Analysis	300.0		5	150	02/04/21 21:28	A1S	XC
Total/NA	Prep	SW8015P		1	3150309_P	02/05/21 17:17		XS
Total/NA	Analysis	TPH SW8015_MOD		1	3150309	02/08/21 14:38	ISU	XS

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

XS = Eurofins Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Laboratory: Eurofins Xenco, Carlsbad

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	06-30-21

Laboratory: Eurofins Stafford

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215-20-37	06-30-21

Eurofins Xenco, Carlsbad

Method Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XC
300.0	Anions, Ion Chromatography	MCAWW	XC
8015B	SW846 8015B DRO	SW846	XS
5030C	Purge and Trap	SW846	XC
DI Leach	Deionized Water Leaching Procedure	ASTM	XC

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:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

XS = Eurofins Stafford, 4147 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

Eurofins Xenco, Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-139-1
SDG: 3140209.01

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-139-1	FS18	Solid	02/03/21 12:39	02/03/21 15:56	
890-139-2	FS19	Solid	02/03/21 12:40	02/03/21 15:56	
890-139-3	FS52	Solid	02/03/21 13:07	02/03/21 15:56	
890-139-4	FS53	Solid	02/03/21 13:09	02/03/21 15:56	
890-139-5	FS71	Solid	02/03/21 10:45	02/03/21 15:56	
890-139-6	FS72	Solid	02/03/21 10:46	02/03/21 15:56	
890-139-7	FS73	Solid	02/03/21 10:47	02/03/21 15:56	
890-139-8	FS74	Solid	02/03/21 10:52	02/03/21 15:56	
890-139-9	FS75	Solid	02/03/21 10:53	02/03/21 15:56	
890-139-10	FS76	Solid	02/03/21 10:54	02/03/21 15:56	
890-139-11	FS77	Solid	02/03/21 10:56	02/03/21 15:56	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-139-1

SDG Number: 3140209.01

Login Number: 139

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-201-1

Laboratory Sample Delivery Group: 31402909.01

Client Project/Site: Columbus Federal 021H & 022H CTB

For:

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

Attn: Kalei Jennings

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

Authorized for release by:
2/18/2021 3:03:21 PM

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

LINKS

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

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

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Laboratory Job ID: 890-201-1
SDG: 31402909.01

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Job ID: 890-201-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-201-1

Receipt

The sample was received on 2/11/2021 1:15 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 0.6°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

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 890-251 and analytical batch 890-252 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Client Sample ID: SW31

Lab Sample ID: 890-201-1

Date Collected: 02/11/21 11:18

Matrix: Solid

Date Received: 02/11/21 13:15

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		02/12/21 08:56	02/16/21 16:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 16:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 16:37	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 16:37	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 16:37	1
m,p-Xylenes	<0.00399	U	0.00399		mg/Kg		02/12/21 08:56	02/16/21 16:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	103		70 - 130	02/12/21 08:56	02/16/21 16:37	1
4-Bromofluorobenzene (Surr)	93		70 - 130	02/12/21 08:56	02/16/21 16:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.1	U	50.1		mg/Kg		02/12/21 09:30	02/12/21 18:29	1
Total TPH	<50.1	U	50.1		mg/Kg		02/12/21 09:30	02/12/21 18:29	1
>C10-C28	<50.1	U	50.1		mg/Kg		02/12/21 09:30	02/12/21 18:29	1
>C28-C35	<50.1	U	50.1		mg/Kg		02/12/21 09:30	02/12/21 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 135	02/12/21 09:30	02/12/21 18:29	1
o-Terphenyl	89		70 - 135	02/12/21 09:30	02/12/21 18:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	210		10.0		mg/Kg			02/11/21 20:42	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DFBZ1 (70-130)	BFB1 (70-130)
890-201-1	SW31	103	93
LCS 890-258/2-A	Lab Control Sample	99	89
LCS 890-278/2-A	Lab Control Sample	100	85
LCSD 890-258/3-A	Lab Control Sample Dup	97	88
LCSD 890-278/3-A	Lab Control Sample Dup	97	83
MB 890-258/1-A	Method Blank	101	97
MB 890-278/1-A	Method Blank	106	88
Surrogate Legend			
DFBZ = 1,4-Difluorobenzene			
BFB = 4-Bromofluorobenzene (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 (70-135)	OTPH1 (70-135)
890-201-1	SW31	93	89
890-201-1 MS	SW31	103	94
890-201-1 MSD	SW31	111	102
LCS 890-259/2-A	Lab Control Sample	118	107
LCSD 890-259/3-A	Lab Control Sample Dup	113	100
MB 890-259/1-A	Method Blank	105	103
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 890-258/1-A

Matrix: Solid

Analysis Batch: 279

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 258

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/12/21 08:56	02/16/21 14:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/12/21 08:56	02/16/21 14:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	101		70 - 130	02/12/21 08:56	02/16/21 14:00	1
4-Bromofluorobenzene (Surr)	97		70 - 130	02/12/21 08:56	02/16/21 14:00	1

Lab Sample ID: LCS 890-258/2-A

Matrix: Solid

Analysis Batch: 279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 258

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08349		mg/Kg		83	70 - 130
Ethylbenzene	0.100	0.09199		mg/Kg		92	71 - 129
Toluene	0.100	0.09361		mg/Kg		94	70 - 130
m,p-Xylenes	0.200	0.1821		mg/Kg		91	70 - 135
o-Xylene	0.100	0.09134		mg/Kg		91	71 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Difluorobenzene	99		70 - 130
4-Bromofluorobenzene (Surr)	89		70 - 130

Lab Sample ID: LCSD 890-258/3-A

Matrix: Solid

Analysis Batch: 279

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 258

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08513		mg/Kg		85	70 - 130	2	35
Ethylbenzene	0.100	0.09410		mg/Kg		94	71 - 129	2	35
Toluene	0.100	0.09548		mg/Kg		95	70 - 130	2	35
m,p-Xylenes	0.200	0.1877		mg/Kg		94	70 - 135	3	35
o-Xylene	0.100	0.09434		mg/Kg		94	71 - 133	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene	97		70 - 130
4-Bromofluorobenzene (Surr)	88		70 - 130

Lab Sample ID: MB 890-278/1-A

Matrix: Solid

Analysis Batch: 279

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 278

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

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

Lab Sample ID: MB 890-278/1-A

Matrix: Solid

Analysis Batch: 279

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 278

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
Total BTEX	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
Xylenes, Total	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
m,p-Xylenes	<0.00400	U	0.00400		mg/Kg		02/16/21 11:20	02/17/21 13:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/16/21 11:20	02/17/21 13:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	106		70 - 130	02/16/21 11:20	02/17/21 13:04	1
4-Bromofluorobenzene (Surr)	88		70 - 130	02/16/21 11:20	02/17/21 13:04	1

Lab Sample ID: LCS 890-278/2-A

Matrix: Solid

Analysis Batch: 279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 278

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09183		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.08875		mg/Kg		89	71 - 129
Toluene	0.100	0.09328		mg/Kg		93	70 - 130
m,p-Xylenes	0.200	0.1716		mg/Kg		86	70 - 135
o-Xylene	0.100	0.08770		mg/Kg		88	71 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,4-Difluorobenzene	100		70 - 130
4-Bromofluorobenzene (Surr)	85		70 - 130

Lab Sample ID: LCSD 890-278/3-A

Matrix: Solid

Analysis Batch: 279

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 278

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08639		mg/Kg		86	70 - 130	6	35
Ethylbenzene	0.100	0.08990		mg/Kg		90	71 - 129	1	35
Toluene	0.100	0.09256		mg/Kg		93	70 - 130	1	35
m,p-Xylenes	0.200	0.1739		mg/Kg		87	70 - 135	1	35
o-Xylene	0.100	0.08867		mg/Kg		89	71 - 133	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,4-Difluorobenzene	97		70 - 130
4-Bromofluorobenzene (Surr)	83		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

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

Lab Sample ID: MB 890-259/1-A

Matrix: Solid

Analysis Batch: 263

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 259

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 17:29	1
Total TPH	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 17:29	1
>C10-C28	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 17:29	1
>C28-C35	<50.0	U	50.0		mg/Kg		02/12/21 09:30	02/12/21 17:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 135	02/12/21 09:30	02/12/21 17:29	1
o-Terphenyl	103		70 - 135	02/12/21 09:30	02/12/21 17:29	1

Lab Sample ID: LCS 890-259/2-A

Matrix: Solid

Analysis Batch: 263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 259

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	1000	1153		mg/Kg		115	70 - 135
>C10-C28	1000	1005		mg/Kg		101	70 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	118		70 - 135
o-Terphenyl	107		70 - 135

Lab Sample ID: LCSD 890-259/3-A

Matrix: Solid

Analysis Batch: 263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 259

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	1000	1122		mg/Kg		112	70 - 135	3	25
>C10-C28	1000	952.8		mg/Kg		95	70 - 135	5	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	113		70 - 135
o-Terphenyl	100		70 - 135

Lab Sample ID: 890-201-1 MS

Matrix: Solid

Analysis Batch: 263

Client Sample ID: SW31

Prep Type: Total/NA

Prep Batch: 259

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	<50.1	U	999	988.2		mg/Kg		99	70 - 135
Total TPH	<50.1	U	2000	1791		mg/Kg		90	
>C10-C28	<50.1	U	999	802.9		mg/Kg		80	70 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	103		70 - 135
o-Terphenyl	94		70 - 135

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QC Sample Results

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

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

Lab Sample ID: 890-201-1 MSD

Matrix: Solid

Analysis Batch: 263

Client Sample ID: SW31

Prep Type: Total/NA

Prep Batch: 259

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	<50.1	U	1000	1025		mg/Kg		102	70 - 135	4	35
Total TPH	<50.1	U	2010	1896		mg/Kg		94		6	
>C10-C28	<50.1	U	1000	871.3		mg/Kg		87	70 - 135	8	35
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
1-Chlorooctane	111		70 - 135								
o-Terphenyl	102		70 - 135								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 890-251/1-A

Matrix: Solid

Analysis Batch: 252

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0		mg/Kg			02/11/21 18:09	1

Lab Sample ID: LCS 890-251/2-A

Matrix: Solid

Analysis Batch: 252

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	500	534.3		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 890-251/3-A

Matrix: Solid

Analysis Batch: 252

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	500	532.7		mg/Kg		107	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

GC VOA

Prep Batch: 258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-201-1	SW31	Total/NA	Solid	5035	
MB 890-258/1-A	Method Blank	Total/NA	Solid	5035	
LCS 890-258/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 890-258/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 890-278/1-A	Method Blank	Total/NA	Solid	5035	
LCS 890-278/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 890-278/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-201-1	SW31	Total/NA	Solid	8021B	258
MB 890-258/1-A	Method Blank	Total/NA	Solid	8021B	258
MB 890-278/1-A	Method Blank	Total/NA	Solid	8021B	278
LCS 890-258/2-A	Lab Control Sample	Total/NA	Solid	8021B	258
LCS 890-278/2-A	Lab Control Sample	Total/NA	Solid	8021B	278
LCSD 890-258/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	258
LCSD 890-278/3-A	Lab Control Sample Dup	Total/NA	Solid	8021B	278

GC Semi VOA

Prep Batch: 259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-201-1	SW31	Total/NA	Solid	8015NM Prep	
MB 890-259/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 890-259/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 890-259/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-201-1 MS	SW31	Total/NA	Solid	8015NM Prep	
890-201-1 MSD	SW31	Total/NA	Solid	8015NM Prep	

Analysis Batch: 263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-201-1	SW31	Total/NA	Solid	8015B NM	259
MB 890-259/1-A	Method Blank	Total/NA	Solid	8015B NM	259
LCS 890-259/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	259
LCSD 890-259/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	259
890-201-1 MS	SW31	Total/NA	Solid	8015B NM	259
890-201-1 MSD	SW31	Total/NA	Solid	8015B NM	259

HPLC/IC

Leach Batch: 251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-201-1	SW31	Soluble	Solid	DI Leach	
MB 890-251/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 890-251/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 890-251/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

HPLC/IC

Analysis Batch: 252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-201-1	SW31	Soluble	Solid	300.0	251
MB 890-251/1-A	Method Blank	Soluble	Solid	300.0	251
LCS 890-251/2-A	Lab Control Sample	Soluble	Solid	300.0	251
LCSD 890-251/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	251

Lab Chronicle

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Client Sample ID: SW31**Lab Sample ID: 890-201-1****Date Collected: 02/11/21 11:18****Matrix: Solid****Date Received: 02/11/21 13:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			258	02/12/21 08:56	MC	XC
Total/NA	Analysis	8021B		1	279	02/16/21 16:37	PXS	XC
Total/NA	Prep	8015NM Prep			259	02/12/21 09:30	MC	XC
Total/NA	Analysis	8015B NM		1	263	02/12/21 18:29	BJH	XC
Soluble	Leach	DI Leach			251	02/11/21 16:17	MC	XC
Soluble	Analysis	300.0		1	252	02/11/21 20:42	A1S	XC

Laboratory References:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Laboratory: Eurofins Xenco, Carlsbad

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Louisiana	NELAP	05092	06-30-21

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

Method Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

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

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:

XC = Eurofins Xenco, Carlsbad, 1089 N Canal St., Carlsbad, NM 88220, TEL (575)988-3199

Eurofins Xenco, Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: Columbus Federal 021H & 022H CTB

Job ID: 890-201-1
SDG: 31402909.01

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-201-1	SW31	Solid	02/11/21 11:18	02/11/21 13:15	

1

2

3

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12

13

14



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
 Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296
 Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-820-2000)

Work Order No: _____
 www.xenco.com Page _____ of _____

Chain of Custody

Project Manager:	Kalel Jennings	Bill to: (if different)	Ike Tavaraz
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, kalel.jennings@wsp.com, itavaraz@concho.com

Program: UST/PST	☐ RP	☐ Groundfields	☐ RC	☐ \$perfund
State of Project:				
Reporting Level II	☐ Level III	☐ PT/UST	☐ RP	☐ Level IV
Deliverables: EDD	☐	ADAPT	☐	Other:

Project Name:	Columbus Federal 021H & 022H CTB	Turn Around	
Project Number:	31402909.01	Routine	☐
P.O. Number:	Lea	Rush:	24hr CT
Sampler's Name:	William Mather	Due Date:	2/15/21

SAMPLE RECEIPT				Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	0.8	0-6	Thermometer ID						
Received Intact:	Yes	No	Correction Factor:	-0.2					
Cooler Custody Seals:	Yes	No	N/A						
Sample Custody Seals:	Yes	No	N/A						
Sample Custody Seals:	Yes	No	N/A						

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)
SW31	S	2/11/2021	11:18	0-4'	1	X	X	X

ANALYSIS REQUEST																Work Order Notes	
 890-201 Chain of Custody																TAT starts the day received by the lab, if received by 4:30pm	
Sample Comments																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 Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631/245.1/7470/7474-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
		2/11/21 13:15			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-201-1

SDG Number: 31402909.01

Login Number: 201

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

ATTACHMENT 4: FINALIZED 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	NRM2027647311
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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		

Incident ID	NRM2027647311
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 <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u></u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>10/2/2020</u>

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of spill: Columbus Federal 021H & 022H CTB

Date of Spill: 17-Sep-2020

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box, flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☒

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0 BBL WATER: 0.0 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations							Standing Liquid Calculations						
Total Surface Area		width	length	wet soil		oil (%)	Standing Liquid Area		width	length	liquid depth	oil (%)	
	Rectangle Area #1	50 ft	550 ft	X	0.30 in	0%		Rectangle Area #1	0 ft X	0 ft X	0 in	0%	
	Rectangle Area #2	0 ft X	0 0	X	0.00 in	0%		Rectangle Area #2	0 ft X	0 ft X	0 in	0%	
	Rectangle Area #3	0 ft X	0 ft X	X	0.00 in	0%		Rectangle Area #3	0 ft X	0 ft X	0 in	0%	
	Rectangle Area #4	0 ft X	0 ft X	X	0 in	0%		Rectangle Area #4	0 ft X	0 ft X	0 in	0%	
	Rectangle Area #5	0 ft X	0 ft X	X	0 in	0%		Rectangle Area #5	0 ft X	0 ft X	0 in	0%	
	Rectangle Area #6	0 ft X	0 ft X	X	0 in	0%		Rectangle Area #6	0 ft X	0 ft X	0 in	0%	
	Rectangle Area #7	0 ft X	0 ft X	X	0 in	0%		Rectangle Area #7	0 ft X	0 ft X	0 in	0%	
	Rectangle Area #8	0 ft X	0 ft X	X	2 in	0%		Rectangle Area #8	0 ft X	0 ft X	0 in	0%	

okay

production system leak - DAILY PRODUCTION DATA REQUIRED

Average Daily Production: Oil 0 BBL Water 0 BBL 0 Gas (MCFD)

Total Hydrocarbon Content in gas: 0% (percentage)

Did leak occur before the separator?: ☒ YES ☒ N/A (place an "X")

H2S Content in Produced Gas: 0 PPM

H2S Content in Tank Vapors: 0 PPM

Amount of Free Liquid Recovered: 0 BBL okay

Percentage of Oil in Free Liquid Recovered: 0% (percentage)

Liquid holding factor *: 0.14 gal per gal

Use the following when the spill wets the grains of the soil.

* Sand = 0.08 gallon (gal.) liquid per gal. volume of soil.

* Gravelly (caliche) loam = 0.14 gal. liquid per gal. volume of soil.

* Sandy clay loam soil = 0.14 gal liquid per gal. volume of soil.

* Clay loam = 0.16 gal. liquid per gal. volume of soil.

Use the following when the liquid completely fills the pore space of the soil:

Occurs when the spill soaked soil is contained by barriers, natural (or not).

* Clay loam = 0.20 gal. liquid per gal. volume of soil.

* Gravelly (caliche) loam = 0.25 gal. liquid per gal. volume of soil.

* Sandy loam = 0.5 gal. liquid per gal. volume of soil.

Total Solid/Liquid Volume: 27,500 sq. ft. 688 cu. ft. cu. ft. Total Free Liquid Volume: sq. ft. cu. ft. cu. ft.

Estimated Volumes Spilled

	H2O	OIL
Liquid in Soil:	17.1 BBL	0.0 BBL
Free Liquid:	0.0 BBL	0.0 BBL
Totals:	17.1 BBL	0.0 BBL

Total Liquid Spill Liquid: 17.1 BBL 0.00 BBL

Recovered Volumes

Estimated oil recovered: BBL check - okay
Estimated water recovered: BBL check - okay

Estimated Production Volumes Lost

	H2O	OIL
Estimated Production Spilled:	0.0 BBL	0.0 BBL

Estimated Surface Damage

Surface Area: 27,500 sq. ft.
Surface Area: .6313 acre

Estimated Weights, and Volumes

Saturated Soil = 77,000 lbs 688 cu. ft. 25 cu. yds.
Total Liquid = 17 BBL 720 gallon 5,990 lbs

Air Emission from flowline leaks:

Volume of oil spill: - BBL
Separator gas calculated: - MCF
Separator gas released: - MCF
Gas released from oil: - lb
H2S released: - lb
Total HC gas released: - lb
Total HC gas released: - MCF

Air Emission of Reporting Requirements:

	New Mexico	Texas
HC gas release reportable?	NO	NO
H2S release reportable?	NO	NO

Incident ID	NRM2027647311
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (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

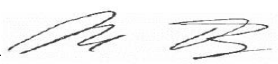
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, 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.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NRM2027647311
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: Ike Tavaréz Title: Senior HSE SupervisorSignature:  Date: 4/7/2021email: itavaréz@concho.com Telephone: 432-685-2573**OCD Only**

Received by: _____ Date: _____

Incident ID	NRM2027647311
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: Ike Tavarez Title: Senior HSE Supervisor
Signature:  Date: 4/7/2021
email: itavarez@concho.com Telephone: 432-685-2573

OCD Only

Received by: Cristina Eads Date: 04/07/2021

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: _____ Date: 07/22/2021

Printed Name: Cristina Eads Title: Environmental Specialist

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	NRM2029631183
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jennifer Knowlton	Contact Telephone	(575) 748-1570
Contact email	JKnowlton@concho.com	Incident # (assigned by OCD)	
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.0924 Longitude -103.5547
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Columbus Federal 021H & 022H CTB	Site Type	Flow Line
Date Release Discovered	October 7, 2020	API# (if applicable)	

Unit Letter	Section	Township	Range	County
A	34	25S	33E	Lea

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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 30	Volume Recovered (bbls) 16
	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 hole in the flow line due to internal corrosion.
The release was in the pasture. 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.

Incident ID	NRM2029631183
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? The volume released was greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was given by Sheldon Hitchcock via e-mail October 8, 2020 at 2:38 pm to ocd.enviro@state.nm.us and Jim.Griswold@state.nm.us.	

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 <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Brittany N. Esparza	Title: HSE Administrative Assistant
Signature: 	Date: 10/20/2020
email: besparza@concho.com	Telephone: (432) 221-0398
<u>OCD Only</u>	
Received by: Ramona Marcus	Date: 10/22/2020

***** LIQUID SPILLS - VOLUME CALCULATIONS *****

Location of spill: Columbus Federal 021H & 022H CTB

Date of Spill: 7-Oct-2020

If the leak/spill is associated with production equipment, i.e. - wellhead, stuffing box, flowline, tank battery, production vessel, transfer pump, or storage tank place an "X" here: ☒

Input Data:

If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here: OIL: 0.0 BBL WATER: 0.0 BBL

If "known" spill volumes are given, input data for the following "Area Calculations" is optional. The above will override the calculated volumes.

Total Area Calculations							Standing Liquid Calculations							
Total Surface Area		width	length	wet soil		oil (%)	Standing Liquid Area		width	length	liquid depth	oil (%)		
				depth										
Rectangle Area #1	75 ft		40 ft	X	2.50 in	0%	Rectangle Area #1	0 ft	X	0 ft	X	0 in	0%	
Rectangle Area #2	0 ft	X	0	0	X	0.00 in	0%	Rectangle Area #2	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #3	0 ft	X	0	ft	X	0.00 in	0%	Rectangle Area #3	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #4	0 ft	X	0	ft	X	0 in	0%	Rectangle Area #4	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #5	0 ft	X	0	ft	X	0 in	0%	Rectangle Area #5	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #6	0 ft	X	0	ft	X	0 in	0%	Rectangle Area #6	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #7	0 ft	X	0	ft	X	0 in	0%	Rectangle Area #7	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #8	0 ft	X	0	ft	X	2 in	0%	Rectangle Area #8	0 ft	X	0 ft	X	0 in	0%

okay

production system leak - DAILY PRODUCTION DATA REQUIRED

Average Daily Production: Oil 0 BBL Water 0 BBL 0 Gas (MCFD)

Total Hydrocarbon Content in gas: 0% (percentage)

Did leak occur before the separator?: ☒ YES ☒ N/A (place an "X")

H2S Content in Produced Gas: 0 PPM

H2S Content in Tank Vapors: 0 PPM

Amount of Free Liquid Recovered: 0 BBL okay

Percentage of Oil in Free Liquid Recovered: 0% (percentage)

Liquid holding factor *: 0.14 gal per gal

Use the following when the spill wets the grains of the soil.

* Sand = 0.08 gallon (gal.) liquid per gal. volume of soil.

* Gravelly (caliche) loam = 0.14 gal. liquid per gal. volume of soil.

* Sandy clay loam soil = 0.14 gal liquid per gal. volume of soil.

* Clay loam = 0.16 gal. liquid per gal. volume of soil.

Use the following when the liquid completely fills the pore space of the soil.

Occurs when the spill soaked soil is contained by barriers, natural (or not).

* Clay loam = 0.20 gal. liquid per gal. volume of soil.

* Gravelly (caliche) loam = 0.25 gal. liquid per gal. volume of soil.

* Sandy loam = 0.5 gal. liquid per gal. volume of soil.

Total Solid/Liquid Volume: 3,000 sq. ft. 625 cu. ft. cu. ft. Total Free Liquid Volume: sq. ft. cu. ft. cu. ft.

Estimated Volumes Spilled

	H2O	OIL
Liquid in Soil:	15.6 BBL	0.0 BBL
Free Liquid:	0.0 BBL	0.0 BBL
Totals:	15.6 BBL	0.0 BBL

Total Liquid Spill Liquid: 15.6 BBL 0.00 BBL

Recovered Volumes

Estimated oil recovered: BBL check - okay
Estimated water recovered: BBL check - okay

Estimated Production Volumes Lost

	H2O	OIL
Estimated Production Spilled:	0.0 BBL	0.0 BBL

Estimated Surface Damage

Surface Area: 3,000 sq. ft.
Surface Area: .0689 acre

Estimated Weights and Volumes

Saturated Soil = 70,000 lbs 625 cu. ft. 23 cu. yds.
Total Liquid = 16 BBL 655 gallon 5,445 lbs

Air Emission from flowline leaks:

Volume of oil spill: - BBL
Separator gas calculated: - MCF
Separator gas released: - MCF
Gas released from oil: - lb
H2S released: - lb
Total HC gas released: - lb
Total HC gas released: - MCF

Air Emission of Reporting Requirements:

	New Mexico	Texas
HC gas release reportable?	NO	NO
H2S release reportable?	NO	NO

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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (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.

Incident ID	NRM2029631183
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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.

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

Printed Name: Ike Tavaréz Title: Senior HSE Supervisor

Signature:  Date: 4/7/2021

email: itavarez@concho.com Telephone: 432-685-2573

OCD Only

Received by: Cristina Eads Date: 04/07/2021

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Closure

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

Closure Report Attachment Checklist: *Each of the following items must be included in the 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: Ike Tavarez Title: Senior HSE Supervisor
Signature:  Date: 4/7/2021
email: itavarez@concho.com Telephone: 432-685-2573

OCD Only

Received by: Cristina Eads Date: 04/07/2021

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: _____ Date: 07/22/2021

Printed Name: Cristina Eads Title: Environmental Specialist

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 23213

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 23213
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
ceads	None	7/22/2021