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

January 27, 2022

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

RE: Closure Request
State GQ Com 002H
Incident Number NAPP2110641182
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of Concho Operating, LLC (COG), presents the following Closure Request as a follow-up to the Remediation Work Plan (Work Plan) that was submitted to the New Mexico Oil Conservation Division (NMOCD) on July 14, 2021. This Closure Request details excavation and soil sampling activities completed at the State GQ Com 002H (Site) located in Unit H, Section 7, Township 25 South, Range 28 East, in Eddy County, New Mexico following NMOCD approval of the Work Plan. Based on excavation activities and soil sample laboratory analytical results, COG is requesting no further action (NFA) for Incident Number NAPP2110641182.

BACKGROUND

On April 5, 2021, a poly line was run over which resulted in the release of approximately 13 barrels (bbls) of produced water. No fluids were recovered. The release occurred on the lease road and adjacent pasture land owned by the New Mexico State Land Office (SLO), and covered an approximate 14,198 square-foot area. COG reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on April 16, 2021. The release was assigned Incident Number NAPP2110641182.

The Work Plan detailed site characterization 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). Based on the site characterization, the following Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

A Work Plan was submitted due to further remediation efforts being postponed pending issuance of a Right of Entry (ROE) Permit from the SLO. The ROE application was submitted to the SLO on June 24, 2021, and the executed permit was pending at the time of the Work Plan submittal. The Work Plan detailed site assessment and delineation activities completed at the Site and proposed excavation of impacted soil once the ROE was issued.

On October 5, 2021, NMOCD approved the Work Plan for Incident Number NAPP2110641182 with the following conditions:

- *The Workplan/Remediation Plan is approved with the following conditions: Sidewall/floor samples need to comply with the strictest closure criteria limits 600 mg/kg for Chlorides and 100 mg/kg TPH on the road and adjacent pasture area. The variance for 500 ft2 confirmation floor samples is approved. Please collect confirmation sidewall samples, representing no more than 200 ft2. If sidewall depth is less than 1.5 feet, please make sure sample is taken on the edge of the excavation representing no more than 200 linear feet.*

EXCAVATION ACTIVITIES AND SOIL ANALYTICAL RESULTS

Once the ROE permit was received from the SLO and the Work Plan was approved by the NMOCD, remediation activities were scheduled. WSP personnel were at the Site between December 1, 2021 and December 15, 2021 to oversee excavation of the impacted soil, as outlined in the approved Work Plan. Excavation activities were performed using track-mounted backhoe and transport vehicle. To direct excavation activities, WSP screened soil for volatile aromatic hydrocarbons and chloride utilizing a photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively.

Following removal of the impacted soil and in accordance with the conditions of the Work Plan, WSP collected 5-point composite soil samples every 500 square feet from the floor of the excavation and every 200 square feet from the sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS26, and FS22A were collected from the floor of the excavation from depths ranging from 2 feet to 7 feet bgs. Composite soil samples SW01 through SW17 were collected from the sidewalls of the excavation from depths ranging from the ground surface to 7 feet bgs. Additionally, three surface samples (SS01 through SS03) were collected from the pasture area east of the release extent from a depth of 0.5 feet bgs to confirm the lateral extent of the release. The excavation extent, excavation soil sample locations, and surface sample locations are depicted on Figure 1. Photographic documentation was conducted during excavation activities and a photographic log is included in Attachment 1.

The soil samples were placed directly into pre-cleaned glass jars, labeled with location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were

shipped at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) following United States Environmental Protection Agency (EPA) Method 8021B; total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for excavation floor samples FS01 through FS21, FS22A, FS23 through FS26 and sidewalls samples SW01 through SW17, collected from the final excavation extent, indicated benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical result for excavation floor sample FS22 indicated that chloride concentrations initially exceeded the Closure Criteria. Additional soil was removed from this area and subsequent floor sample FS22A was compliant. Laboratory analytical results for surface samples SS01 through SS03, collected from the pasture, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Attachment 2.

The excavation extent measured approximately 13,089 square feet. A total of approximately 2,140 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Orla, Texas. After completion of confirmation sampling, the excavation was backfilled.

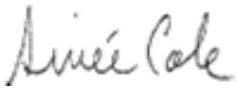
CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the April 5, 2021, release of produced water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH, and chloride concentrations were compliant with the Closure Criteria. Based on the excavation soil sample analytical results, no further remediation was required. COG respectfully requests no further action for Incident Number NAPP2110641182. The finalized version of the Form C-141 is included in Attachment 3.

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

Sincerely,

WSP USA, INC.



Kalei Jennings
Consultant, Environmental Scientist

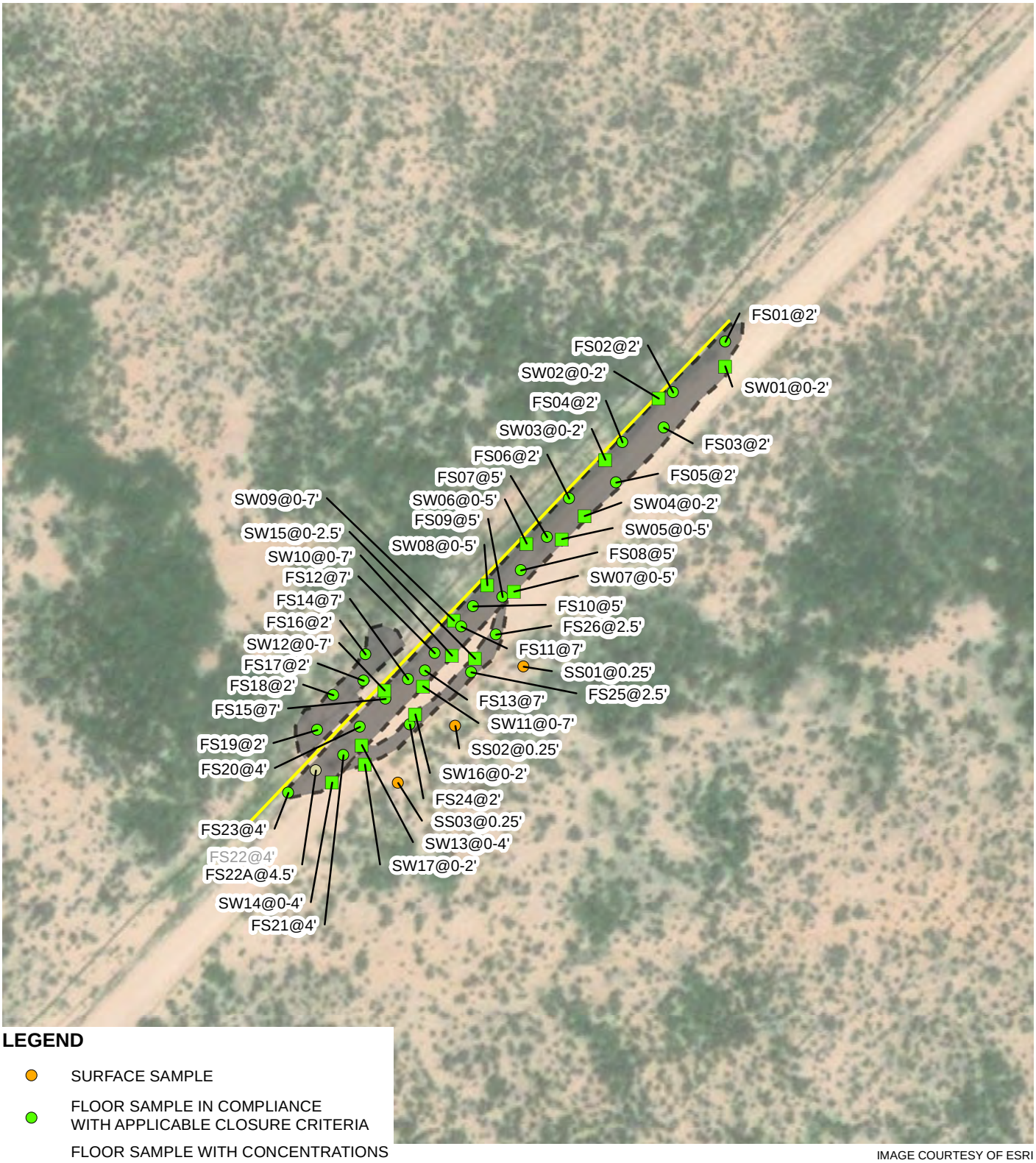
Aimee Cole
Senior Consultant, Environmental Scientist

cc: Ike Tavarez, COG
Ryan Mann, New Mexico State Land Office

Attachments:

Figure 1	Excavation Soil Sample Locations
Table 1	Soil Analytical Results
Attachment 1	Photographic Log
Attachment 2	Laboratory Analytical Reports
Attachment 3	Final C-141

FIGURES



LEGEND

- SURFACE SAMPLE
- FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
- FLOOR 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 NAPP2110641182
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)
TEXT: INDICATES SOIL REPRESENTED BY SAMPLE THAT WAS REMOVED

IMAGE COURTESY OF ESRI

0 100 200
Feet

N

FIGURE 1
EXCAVATION SOIL SAMPLE LOCATIONS
STATE GQ COM 002H
UNIT H SEC 7 T25S R28E
EDDY COUNTY, NEW MEXICO
COG OPERATING, LLC

P:\Concho Operating\GIS\MXD\31402909.040_STATE GQ COM 002H\31402909.040_FIG01_EXCAVATION_2022.mxd

TABLES

Table 1

Soil Analytical Results
State GQ Com 002H
Incident Number NAPP2110641182
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
Surface Soil Samples										
SS01	12/09/2021	0.25	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	83.8*
SS02	12/09/2021	0.25	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	31.9*
SS03	12/09/2021	0.25	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	20.2*
Excavation Floor Samples										
FS01	12/01/2021	2	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	588
FS02	12/01/2021	2	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	32.9
FS03	12/01/2021	2	<0.00200	<0.00399	<49.8	<49.8	<49.8	<49.8	<49.8	153
FS04	12/01/2021	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	63.9
FS05	12/01/2021	2	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	260
FS06	12/01/2021	2	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	404
FS07	12/02/2021	5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	181
FS08	12/02/2021	5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	154
FS09	12/02/2021	5	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	<49.9	384
FS10	12/02/2021	5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	137
FS11	12/06/2021	7	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	148
FS12	12/06/2021	7	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	172
FS13	12/07/2021	7	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	190
FS14	12/07/2021	7	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	36.9
FS15	12/07/2021	7	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	29.8
FS16	12/07/2021	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	9.91
FS17	12/07/2021	2	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	87.1

Table 1

Soil Analytical Results
State GQ Com 002H
Incident Number NAPP2110641182
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
FS18	12/07/2021	2	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	12.2
FS19	12/07/2021	2	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	9.33
FS20	12/07/2021	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	135
FS21	12/07/2021	4	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	327
FS22	12/09/2021	4	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	**816**
FS22A	12/14/2021	4.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	40.3
FS23	12/09/2021	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	333
FS24	12/15/2021	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	52.7
FS25	12/14/2021	2.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	12.9
FS26	12/14/2021	2.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	15.4
Excavation Sidewall Samples										
SW01	12/01/2021	0 - 2	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	<50.0	30.6
SW02	12/01/2021	0 - 2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98
SW03	12/01/2021	0 - 2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	66.2
SW04	12/01/2021	0 - 2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	25.0
SW05	12/02/2021	0 - 5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	162
SW06	12/02/2021	0 - 5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	91.9
SW07	12/02/2021	0 - 5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	33.0
SW08	12/02/2021	0 - 5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	72.9
SW09	12/06/2021	0 - 7	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	62.6
SW10	12/06/2021	0 - 7	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	50.3

Table 1

Soil Analytical Results
State GQ Com 002H
Incident Number NAPP2110641182
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	NE	100	600
SW11	12/07/2021	0 - 7	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	55.0
SW12	12/07/2021	0 - 7	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	42.6
SW13	12/07/2021	0 - 4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	197
SW14	12/07/2021	0 - 4	<0.00202	<0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	49.8
SW15	12/14/2021	0-2.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	16.9
SW16	12/15/2021	0-2	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	153
SW17	12/15/2021	0-2	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	85.3

Notes:

ft - feet/foot
mg/kg - milligrams per kilograms
BTEX - benzene, toluene, ethylbenzene, and total xylenes
TPH - total petroleum hydrocarbons
DRO - diesel range organics
GRO - gasoline range organics
ORO - 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 excavated
*- indicated 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: PHOTOGRAPHIC LOG

PHOTOGRAPHIC LOG		
Concho Operating, LLC	**State GQ Com 002H** **Eddy County, New Mexico**	**NAPP2110641182**

Photo No.	**Date**
1	December 7, 2021

View of excavation activities in the pasture area.

Photo No.	**Date**
2	December 9, 2021

View of excavation activities in the pasture area.

PHOTOGRAPHIC LOG		
Concho Operating, LLC	State GQ Com 002H Eddy County, New Mexico	NAPP2110641182

Photo No.	Date
3	January 4, 2022

View of completed backfill.

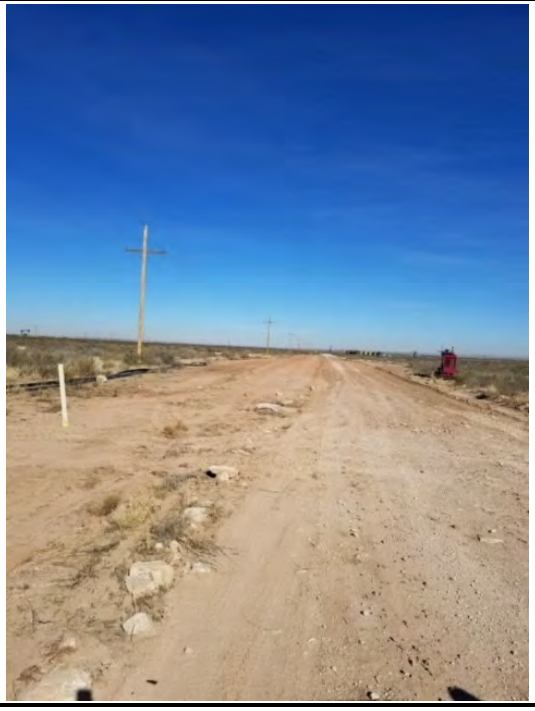
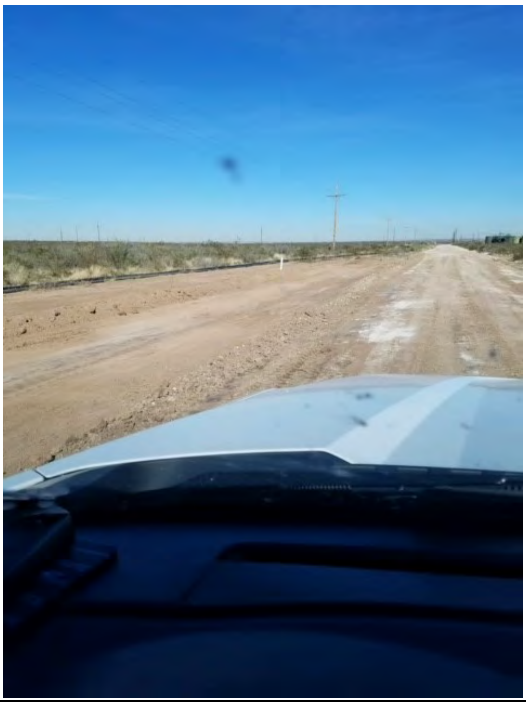


Photo No.	Date
4	January 4, 2022

View of completed backfill



ATTACHMENT **2**: LABORATORY ANALYTICAL RESULTS

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1669-1
Laboratory Sample Delivery Group: 31402909.040. Task 02
Client Project/Site: State QG Com 002h

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/13/2021 8:48:29 AM

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

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

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

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Laboratory Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1669-1
Project/Site: State QG Com 002h SDG: 31402909.040. Task 02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1669-1
Project/Site: State QG Com 002h SDG: 31402909.040. Task 02

Job ID: 890-1669-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1669-1

Receipt
The samples were received on 12/2/2021 1:24 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.8°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-13949 and analytical batch 880-13938 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-13949/2-A) and (890-1669-A-1-D MS). Evidence of matrix interferences is not obvious.

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

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: FS01

Lab Sample ID: 890-1669-1
Matrix: Solid
Date Collected: 12/01/21 10:35
Date Received: 12/02/21 13:24
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 13:12	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 13:12	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 13:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/03/21 08:00	12/03/21 13:12	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 13:12	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/03/21 08:00	12/03/21 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*12/03/21 08:00*	*12/03/21 13:12*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*12/03/21 08:00*	*12/03/21 13:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		12/06/21 09:26	12/06/21 11:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 11:47	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 11:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*70*		*70 - 130*	*12/06/21 09:26*	*12/06/21 11:47*	*1*
o-Terphenyl	*71*		*70 - 130*	*12/06/21 09:26*	*12/06/21 11:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**588**		4.96		mg/Kg			12/11/21 10:41	1

Client Sample ID: SW01

Lab Sample ID: 890-1669-2
Matrix: Solid
Date Collected: 12/01/21 10:37
Date Received: 12/02/21 13:24
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/03/21 08:00	12/03/21 13:33	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/03/21 08:00	12/03/21 13:33	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/03/21 08:00	12/03/21 13:33	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		12/03/21 08:00	12/03/21 13:33	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/03/21 08:00	12/03/21 13:33	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		12/03/21 08:00	12/03/21 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*12/03/21 08:00*	*12/03/21 13:33*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: SW01

Lab Sample ID: 890-1669-2
Matrix: Solid
Date Collected: 12/01/21 10:37
Date Received: 12/02/21 13:24
Sample Depth: 0 - 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*12/03/21 08:00*	*12/03/21 13:33*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0	mg/Kg		12/06/21 09:26	12/06/21 12:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/06/21 09:26	12/06/21 12:51	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/06/21 09:26	12/06/21 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*12/06/21 09:26*	*12/06/21 12:51*	*1*
o-Terphenyl	*83*		*70 - 130*	*12/06/21 09:26*	*12/06/21 12:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**30.6**		5.04	mg/Kg			12/11/21 11:01	1

Client Sample ID: SW02

Lab Sample ID: 890-1669-3
Matrix: Solid
Date Collected: 12/01/21 12:05
Date Received: 12/02/21 13:24
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/03/21 08:00	12/03/21 13:53	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/03/21 08:00	12/03/21 13:53	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/03/21 08:00	12/03/21 13:53	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/03/21 08:00	12/03/21 13:53	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/03/21 08:00	12/03/21 13:53	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/03/21 08:00	12/03/21 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*12/03/21 08:00*	*12/03/21 13:53*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*12/03/21 08:00*	*12/03/21 13:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/09/21 14:45	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: SW02

Lab Sample ID: 890-1669-3
Matrix: Solid
Date Collected: 12/01/21 12:05
Date Received: 12/02/21 13:24
Sample Depth: 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		12/06/21 09:26	12/06/21 13:12	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 13:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*12/06/21 09:26*	*12/06/21 13:12*	*1*
o-Terphenyl	*71*		*70 - 130*	*12/06/21 09:26*	*12/06/21 13:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			12/11/21 11:07	1

Client Sample ID: FS02

Lab Sample ID: 890-1669-4
Matrix: Solid
Date Collected: 12/01/21 12:07
Date Received: 12/02/21 13:24
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/03/21 08:00	12/03/21 14:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/03/21 08:00	12/03/21 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*12/03/21 08:00*	*12/03/21 14:13*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*12/03/21 08:00*	*12/03/21 14:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		12/06/21 09:26	12/06/21 13:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 13:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*12/06/21 09:26*	*12/06/21 13:33*	*1*
o-Terphenyl	*79*		*70 - 130*	*12/06/21 09:26*	*12/06/21 13:33*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: FS02

Lab Sample ID: 890-1669-4
Matrix: Solid
Date Collected: 12/01/21 12:07
Date Received: 12/02/21 13:24
Sample Depth: 0 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.9		4.95		mg/Kg			12/11/21 11:27	1

Client Sample ID: FS03

Lab Sample ID: 890-1669-5
Matrix: Solid
Date Collected: 12/01/21 13:27
Date Received: 12/02/21 13:24
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/03/21 08:00	12/03/21 14:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 14:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/03/21 08:00	12/03/21 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*12/03/21 08:00*	*12/03/21 14:34*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*12/03/21 08:00*	*12/03/21 14:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *-	49.8		mg/Kg		12/06/21 09:26	12/06/21 13:55	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/06/21 09:26	12/06/21 13:55	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/06/21 09:26	12/06/21 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*12/06/21 09:26*	*12/06/21 13:55*	*1*
o-Terphenyl	*83*		*70 - 130*	*12/06/21 09:26*	*12/06/21 13:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	153		5.01		mg/Kg			12/11/21 11:34	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: FS04

Lab Sample ID: 890-1669-6
Matrix: Solid
Date Collected: 12/01/21 13:30
Date Received: 12/02/21 13:24
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 14:54	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 14:54	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 14:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/03/21 08:00	12/03/21 14:54	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 14:54	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/03/21 08:00	12/03/21 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*12/03/21 08:00*	*12/03/21 14:54*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*12/03/21 08:00*	*12/03/21 14:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		12/06/21 09:26	12/06/21 14:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 14:16	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 14:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*12/06/21 09:26*	*12/06/21 14:16*	*1*
o-Terphenyl	*80*		*70 - 130*	*12/06/21 09:26*	*12/06/21 14:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**63.9**		4.97		mg/Kg			12/11/21 11:40	1

Client Sample ID: FS05

Lab Sample ID: 890-1669-7
Matrix: Solid
Date Collected: 12/01/21 14:25
Date Received: 12/02/21 13:24
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/03/21 08:00	12/03/21 15:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/03/21 08:00	12/03/21 15:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/03/21 08:00	12/03/21 15:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/03/21 08:00	12/03/21 15:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/03/21 08:00	12/03/21 15:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/03/21 08:00	12/03/21 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*12/03/21 08:00*	*12/03/21 15:15*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1669-1
Project/Site: State QG Com 002h SDG: 31402909.040. Task 02

Client Sample ID: FS05 Lab Sample ID: 890-1669-7

Date Collected: 12/01/21 14:25 **Matrix: Solid**
Date Received: 12/02/21 13:24
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*12/03/21 08:00*	*12/03/21 15:15*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *-	49.8	mg/Kg		12/06/21 09:26	12/06/21 18:29	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/06/21 09:26	12/06/21 18:29	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/06/21 09:26	12/06/21 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*76*		*70 - 130*	*12/06/21 09:26*	*12/06/21 18:29*	*1*
o-Terphenyl	*77*		*70 - 130*	*12/06/21 09:26*	*12/06/21 18:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**260**		5.00	mg/Kg			12/11/21 11:47	1

Client Sample ID: FS06 Lab Sample ID: 890-1669-8

Date Collected: 12/01/21 14:26 **Matrix: Solid**
Date Received: 12/02/21 13:24
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		12/03/21 08:00	12/03/21 15:35	1
Toluene	<0.00198	U	0.00198	mg/Kg		12/03/21 08:00	12/03/21 15:35	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		12/03/21 08:00	12/03/21 15:35	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		12/03/21 08:00	12/03/21 15:35	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		12/03/21 08:00	12/03/21 15:35	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		12/03/21 08:00	12/03/21 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*12/03/21 08:00*	*12/03/21 15:35*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*12/03/21 08:00*	*12/03/21 15:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/09/21 14:45	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: FS06

Lab Sample ID: 890-1669-8
Matrix: Solid
Date Collected: 12/01/21 14:26
Date Received: 12/02/21 13:24
Sample Depth: 2

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		12/06/21 09:26	12/06/21 18:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/06/21 09:26	12/06/21 18:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/06/21 09:26	12/06/21 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*34*	*S1-*	*70 - 130*	*12/06/21 09:26*	*12/06/21 18:50*	*1*
o-Terphenyl	*70*		*70 - 130*	*12/06/21 09:26*	*12/06/21 18:50*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**404**		5.00		mg/Kg			12/11/21 11:54	1

Client Sample ID: SW03

Lab Sample ID: 890-1669-9
Matrix: Solid
Date Collected: 12/01/21 14:30
Date Received: 12/02/21 13:24
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 17:45	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 17:45	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 17:45	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/03/21 08:00	12/03/21 17:45	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/03/21 08:00	12/03/21 17:45	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/03/21 08:00	12/03/21 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*12/03/21 08:00*	*12/03/21 17:45*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*12/03/21 08:00*	*12/03/21 17:45*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *-	50.0		mg/Kg		12/06/21 09:26	12/06/21 19:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/06/21 09:26	12/06/21 19:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/06/21 09:26	12/06/21 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*73*		*70 - 130*	*12/06/21 09:26*	*12/06/21 19:11*	*1*
o-Terphenyl	*74*		*70 - 130*	*12/06/21 09:26*	*12/06/21 19:11*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: SW03

Lab Sample ID: 890-1669-9
Matrix: Solid
Date Collected: 12/01/21 14:30
Date Received: 12/02/21 13:24
Sample Depth: 0 - 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	66.2		5.03		mg/Kg			12/11/21 12:00	1

Client Sample ID: SW04

Lab Sample ID: 890-1669-10
Matrix: Solid
Date Collected: 12/01/21 14:32
Date Received: 12/02/21 13:24
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/03/21 08:00	12/03/21 18:06	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/03/21 08:00	12/03/21 18:06	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/03/21 08:00	12/03/21 18:06	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/03/21 08:00	12/03/21 18:06	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/03/21 08:00	12/03/21 18:06	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/03/21 08:00	12/03/21 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*12/03/21 08:00*	*12/03/21 18:06*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*12/03/21 08:00*	*12/03/21 18:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			12/09/21 09:17	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/09/21 14:45	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		12/06/21 09:26	12/06/21 19:33	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 19:33	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/06/21 09:26	12/06/21 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*66*	*S1-*	*70 - 130*	*12/06/21 09:26*	*12/06/21 19:33*	*1*
o-Terphenyl	*67*	*S1-*	*70 - 130*	*12/06/21 09:26*	*12/06/21 19:33*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25.0		5.04		mg/Kg			12/11/21 12:07	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-8912-A-3-B MS	Matrix Spike	116	93
880-8912-A-3-C MSD	Matrix Spike Duplicate	112	93
890-1669-1	FS01	129	95
890-1669-2	SW01	118	93
890-1669-3	SW02	126	96
890-1669-4	FS02	111	108
890-1669-5	FS03	124	98
890-1669-6	FS04	118	99
890-1669-7	FS05	126	94
890-1669-8	FS06	135 S1+	111
890-1669-9	SW03	110	82
890-1669-10	SW04	123	93
LCS 880-13830/1-A	Lab Control Sample	107	95
LCSD 880-13830/2-A	Lab Control Sample Dup	122	102
MB 880-13830/5-A	Method Blank	122	107

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1669-1	FS01	70	71
890-1669-1 MS	FS01	71	68 S1-
890-1669-1 MSD	FS01	80	73
890-1669-2	SW01	81	83
890-1669-3	SW02	75	71
890-1669-4	FS02	81	79
890-1669-5	FS03	77	83
890-1669-6	FS04	78	80
890-1669-7	FS05	76	77
890-1669-8	FS06	34 S1-	70
890-1669-9	SW03	73	74
890-1669-10	SW04	66 S1-	67 S1-
LCS 880-13949/2-A	Lab Control Sample	70	69 S1-
LCSD 880-13949/3-A	Lab Control Sample Dup	114	113
MB 880-13949/1-A	Method Blank	84	90

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-13830/5-A
Matrix: Solid
Analysis Batch: 13832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13830

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 11:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 11:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 11:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/03/21 08:00	12/03/21 11:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/03/21 08:00	12/03/21 11:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/03/21 08:00	12/03/21 11:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*	*12/03/21 08:00*	*12/03/21 11:18*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*12/03/21 08:00*	*12/03/21 11:18*	*1*

Lab Sample ID: LCS 880-13830/1-A
Matrix: Solid
Analysis Batch: 13832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13830

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08732		mg/Kg		87	70 - 130		
Toluene			0.100	0.08941		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.09497		mg/Kg		95	70 - 130		
m-Xylene & p-Xylene			0.200	0.1859		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.08845		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-13830/2-A
Matrix: Solid
Analysis Batch: 13832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13830

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09917		mg/Kg		99	70 - 130	13	35
Toluene			0.100	0.1037		mg/Kg		104	70 - 130	15	35
Ethylbenzene			0.100	0.1053		mg/Kg		105	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2084		mg/Kg		104	70 - 130	11	35
o-Xylene			0.100	0.1012		mg/Kg		101	70 - 130	13	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*122*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: 880-8912-A-3-B MS
Matrix: Solid
Analysis Batch: 13832

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 13830

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U F1	0.100	0.07895		mg/Kg		79	70 - 130		
Toluene	<0.00199	U	0.100	0.07527		mg/Kg		75	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

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

Lab Sample ID: 880-8912-A-3-B MS
Matrix: Solid
Analysis Batch: 13832

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 13830

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.100	0.07124		mg/Kg		71	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1409		mg/Kg		70	70 - 130
o-Xylene	<0.00199	U F1	0.100	0.06823	F1	mg/Kg		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: 880-8912-A-3-C MSD
Matrix: Solid
Analysis Batch: 13832

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 13830

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0996	0.06900	F1	mg/Kg		69	70 - 130	13	35
Toluene	<0.00199	U	0.0996	0.07015		mg/Kg		70	70 - 130	7	35
Ethylbenzene	<0.00199	U	0.0996	0.06927		mg/Kg		70	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U F1	0.199	0.1307	F1	mg/Kg		66	70 - 130	7	35
o-Xylene	<0.00199	U F1	0.0996	0.06413	F1	mg/Kg		64	70 - 130	6	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

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

Lab Sample ID: MB 880-13949/1-A
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 13949

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/06/21 09:26	12/06/21 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/06/21 09:26	12/06/21 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/06/21 09:26	12/06/21 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*12/06/21 09:26*	*12/06/21 10:43*	*1*
o-Terphenyl	*90*		*70 - 130*	*12/06/21 09:26*	*12/06/21 10:43*	*1*

Lab Sample ID: LCS 880-13949/2-A
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13949

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	630.8	*-	mg/Kg		63	70 - 130
Diesel Range Organics (Over C10-C28)			1000	755.0		mg/Kg		76	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

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

Lab Sample ID: LCS 880-13949/2-A
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 13949

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	70		70 - 130
o-Terphenyl	69	S1-	70 - 130

Lab Sample ID: LCSD 880-13949/3-A
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 13949

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	660.6	*-	mg/Kg		66	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	780.0		mg/Kg		78	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-1669-1 MS
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 13949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	997	767.8		mg/Kg		77	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	817.4		mg/Kg		82	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 890-1669-1 MSD
Matrix: Solid
Analysis Batch: 13938

Client Sample ID: FS01
Prep Type: Total/NA
Prep Batch: 13949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	999	840.7		mg/Kg		84	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	907.7		mg/Kg		91	70 - 130	10	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	80		70 - 130
o-Terphenyl	73		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14195/1-A
Matrix: Solid
Analysis Batch: 14540

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/11/21 08:48	1

Lab Sample ID: LCS 880-14195/2-A
Matrix: Solid
Analysis Batch: 14540

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	274.2		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-14195/3-A
Matrix: Solid
Analysis Batch: 14540

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	274.0		mg/Kg		110	90 - 110	0	20

Lab Sample ID: 890-1669-1 MS
Matrix: Solid
Analysis Batch: 14540

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	588		248	818.7		mg/Kg		93	90 - 110		

Lab Sample ID: 890-1669-1 MSD
Matrix: Solid
Analysis Batch: 14540

Client Sample ID: FS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	588		248	815.0		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

GC VOA

Prep Batch: 13830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Total/NA	Solid	5035	
890-1669-2	SW01	Total/NA	Solid	5035	
890-1669-3	SW02	Total/NA	Solid	5035	
890-1669-4	FS02	Total/NA	Solid	5035	
890-1669-5	FS03	Total/NA	Solid	5035	
890-1669-6	FS04	Total/NA	Solid	5035	
890-1669-7	FS05	Total/NA	Solid	5035	
890-1669-8	FS06	Total/NA	Solid	5035	
890-1669-9	SW03	Total/NA	Solid	5035	
890-1669-10	SW04	Total/NA	Solid	5035	
MB 880-13830/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13830/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13830/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-8912-A-3-B MS	Matrix Spike	Total/NA	Solid	5035	
880-8912-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 13832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Total/NA	Solid	8021B	13830
890-1669-2	SW01	Total/NA	Solid	8021B	13830
890-1669-3	SW02	Total/NA	Solid	8021B	13830
890-1669-4	FS02	Total/NA	Solid	8021B	13830
890-1669-5	FS03	Total/NA	Solid	8021B	13830
890-1669-6	FS04	Total/NA	Solid	8021B	13830
890-1669-7	FS05	Total/NA	Solid	8021B	13830
890-1669-8	FS06	Total/NA	Solid	8021B	13830
890-1669-9	SW03	Total/NA	Solid	8021B	13830
890-1669-10	SW04	Total/NA	Solid	8021B	13830
MB 880-13830/5-A	Method Blank	Total/NA	Solid	8021B	13830
LCS 880-13830/1-A	Lab Control Sample	Total/NA	Solid	8021B	13830
LCSD 880-13830/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13830
880-8912-A-3-B MS	Matrix Spike	Total/NA	Solid	8021B	13830
880-8912-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	13830

Analysis Batch: 14350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Total/NA	Solid	Total BTEX	
890-1669-2	SW01	Total/NA	Solid	Total BTEX	
890-1669-3	SW02	Total/NA	Solid	Total BTEX	
890-1669-4	FS02	Total/NA	Solid	Total BTEX	
890-1669-5	FS03	Total/NA	Solid	Total BTEX	
890-1669-6	FS04	Total/NA	Solid	Total BTEX	
890-1669-7	FS05	Total/NA	Solid	Total BTEX	
890-1669-8	FS06	Total/NA	Solid	Total BTEX	
890-1669-9	SW03	Total/NA	Solid	Total BTEX	
890-1669-10	SW04	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1669-1
Project/Site: State QG Com 002h SDG: 31402909.040. Task 02

GC Semi VOA

Analysis Batch: 13938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Total/NA	Solid	8015B NM	13949
890-1669-2	SW01	Total/NA	Solid	8015B NM	13949
890-1669-3	SW02	Total/NA	Solid	8015B NM	13949
890-1669-4	FS02	Total/NA	Solid	8015B NM	13949
890-1669-5	FS03	Total/NA	Solid	8015B NM	13949
890-1669-6	FS04	Total/NA	Solid	8015B NM	13949
890-1669-7	FS05	Total/NA	Solid	8015B NM	13949
890-1669-8	FS06	Total/NA	Solid	8015B NM	13949
890-1669-9	SW03	Total/NA	Solid	8015B NM	13949
890-1669-10	SW04	Total/NA	Solid	8015B NM	13949
MB 880-13949/1-A	Method Blank	Total/NA	Solid	8015B NM	13949
LCS 880-13949/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13949
LCSD 880-13949/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13949
890-1669-1 MS	FS01	Total/NA	Solid	8015B NM	13949
890-1669-1 MSD	FS01	Total/NA	Solid	8015B NM	13949

Prep Batch: 13949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Total/NA	Solid	8015NM Prep	
890-1669-2	SW01	Total/NA	Solid	8015NM Prep	
890-1669-3	SW02	Total/NA	Solid	8015NM Prep	
890-1669-4	FS02	Total/NA	Solid	8015NM Prep	
890-1669-5	FS03	Total/NA	Solid	8015NM Prep	
890-1669-6	FS04	Total/NA	Solid	8015NM Prep	
890-1669-7	FS05	Total/NA	Solid	8015NM Prep	
890-1669-8	FS06	Total/NA	Solid	8015NM Prep	
890-1669-9	SW03	Total/NA	Solid	8015NM Prep	
890-1669-10	SW04	Total/NA	Solid	8015NM Prep	
MB 880-13949/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13949/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13949/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1669-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-1669-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Total/NA	Solid	8015 NM	
890-1669-2	SW01	Total/NA	Solid	8015 NM	
890-1669-3	SW02	Total/NA	Solid	8015 NM	
890-1669-4	FS02	Total/NA	Solid	8015 NM	
890-1669-5	FS03	Total/NA	Solid	8015 NM	
890-1669-6	FS04	Total/NA	Solid	8015 NM	
890-1669-7	FS05	Total/NA	Solid	8015 NM	
890-1669-8	FS06	Total/NA	Solid	8015 NM	
890-1669-9	SW03	Total/NA	Solid	8015 NM	
890-1669-10	SW04	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1669-1
Project/Site: State QG Com 002h SDG: 31402909.040. Task 02

HPLC/IC

Leach Batch: 14195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Soluble	Solid	DI Leach	
890-1669-2	SW01	Soluble	Solid	DI Leach	
890-1669-3	SW02	Soluble	Solid	DI Leach	
890-1669-4	FS02	Soluble	Solid	DI Leach	
890-1669-5	FS03	Soluble	Solid	DI Leach	
890-1669-6	FS04	Soluble	Solid	DI Leach	
890-1669-7	FS05	Soluble	Solid	DI Leach	
890-1669-8	FS06	Soluble	Solid	DI Leach	
890-1669-9	SW03	Soluble	Solid	DI Leach	
890-1669-10	SW04	Soluble	Solid	DI Leach	
MB 880-14195/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14195/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14195/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1669-1 MS	FS01	Soluble	Solid	DI Leach	
890-1669-1 MSD	FS01	Soluble	Solid	DI Leach	

Analysis Batch: 14540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1669-1	FS01	Soluble	Solid	300.0	14195
890-1669-2	SW01	Soluble	Solid	300.0	14195
890-1669-3	SW02	Soluble	Solid	300.0	14195
890-1669-4	FS02	Soluble	Solid	300.0	14195
890-1669-5	FS03	Soluble	Solid	300.0	14195
890-1669-6	FS04	Soluble	Solid	300.0	14195
890-1669-7	FS05	Soluble	Solid	300.0	14195
890-1669-8	FS06	Soluble	Solid	300.0	14195
890-1669-9	SW03	Soluble	Solid	300.0	14195
890-1669-10	SW04	Soluble	Solid	300.0	14195
MB 880-14195/1-A	Method Blank	Soluble	Solid	300.0	14195
LCS 880-14195/2-A	Lab Control Sample	Soluble	Solid	300.0	14195
LCSD 880-14195/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14195
890-1669-1 MS	FS01	Soluble	Solid	300.0	14195
890-1669-1 MSD	FS01	Soluble	Solid	300.0	14195

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: FS01
Date Collected: 12/01/21 10:35
Date Received: 12/02/21 13:24

Lab Sample ID: 890-1669-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 13:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 11:47	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 10:41	SC	XEN MID

Client Sample ID: SW01
Date Collected: 12/01/21 10:37
Date Received: 12/02/21 13:24

Lab Sample ID: 890-1669-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 13:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 12:51	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 11:01	SC	XEN MID

Client Sample ID: SW02
Date Collected: 12/01/21 12:05
Date Received: 12/02/21 13:24

Lab Sample ID: 890-1669-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 13:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 13:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 11:07	SC	XEN MID

Client Sample ID: FS02
Date Collected: 12/01/21 12:07
Date Received: 12/02/21 13:24

Lab Sample ID: 890-1669-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 14:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
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Client Sample ID: FS02

Lab Sample ID: 890-1669-4
Matrix: Solid
Date Collected: 12/01/21 12:07
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 13:33	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 11:27	SC	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-1669-5
Matrix: Solid
Date Collected: 12/01/21 13:27
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 14:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 13:55	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 11:34	SC	XEN MID

Client Sample ID: FS04

Lab Sample ID: 890-1669-6
Matrix: Solid
Date Collected: 12/01/21 13:30
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 14:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 14:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 11:40	SC	XEN MID

Client Sample ID: FS05

Lab Sample ID: 890-1669-7
Matrix: Solid
Date Collected: 12/01/21 14:25
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 15:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 18:29	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Client Sample ID: FS05

Lab Sample ID: 890-1669-7
Matrix: Solid
Date Collected: 12/01/21 14:25
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 11:47	SC	XEN MID

Client Sample ID: FS06

Lab Sample ID: 890-1669-8
Matrix: Solid
Date Collected: 12/01/21 14:26
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 15:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 18:50	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 11:54	SC	XEN MID

Client Sample ID: SW03

Lab Sample ID: 890-1669-9
Matrix: Solid
Date Collected: 12/01/21 14:30
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 17:45	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 19:11	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 12:00	SC	XEN MID

Client Sample ID: SW04

Lab Sample ID: 890-1669-10
Matrix: Solid
Date Collected: 12/01/21 14:32
Date Received: 12/02/21 13:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	13830	12/03/21 08:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/03/21 18:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14350	12/09/21 09:17	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14395	12/09/21 14:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13949	12/06/21 09:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13938	12/06/21 19:33	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	14195	12/07/21 13:04	CA	XEN MID
Soluble	Analysis	300.0		1			14540	12/11/21 12:07	SC	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1669-1
Project/Site: State QG Com 002h SDG: 31402909.040. Task 02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1669-1
Project/Site: State QG Com 002h SDG: 31402909.040. Task 02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002h

Job ID: 890-1669-1
SDG: 31402909.040. Task 02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1669-1	FS01	Solid	12/01/21 10:35	12/02/21 13:24	2
890-1669-2	SW01	Solid	12/01/21 10:37	12/02/21 13:24	0 - 2
890-1669-3	SW02	Solid	12/01/21 12:05	12/02/21 13:24	2
890-1669-4	FS02	Solid	12/01/21 12:07	12/02/21 13:24	0 - 2
890-1669-5	FS03	Solid	12/01/21 13:27	12/02/21 13:24	2
890-1669-6	FS04	Solid	12/01/21 13:30	12/02/21 13:24	2
890-1669-7	FS05	Solid	12/01/21 14:25	12/02/21 13:24	2
890-1669-8	FS06	Solid	12/01/21 14:26	12/02/21 13:24	2
890-1669-9	SW03	Solid	12/01/21 14:30	12/02/21 13:24	0 - 2
890-1669-10	SW04	Solid	12/01/21 14:32	12/02/21 13:24	0 - 2

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000) www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	State QG Com 002H	Turn Around	
Project Number:	31402909.040 Task 02	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Temperature (°C):	B: 1.0/5.8	Thermometer ID	TM-004
Received Intact:	Yes No		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Total Containers:	

ANALYSIS REQUEST

890-1669 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS01	S	12/01/21	10:35	2'	1	X	X	X	Composite
SW01	S	12/01/21	10:37	0-2'	1	X	X	X	Composite
SW02	S	12/01/21	12:05	2'	1	X	X	X	Composite
FS02	S	12/01/21	12:07	0-2'	1	X	X	X	Composite
FS03	S	12/01/21	13:27	2'	1	X	X	X	Composite
FS04	S	12/01/21	13:30	2'	1	X	X	X	Composite
FS05	S	12/01/21	14:25	2'	1	X	X	X	Composite
FS06	S	12/01/21	14:26	2'	1	X	X	X	Composite
SW03	S	12/01/21	14:30	0-2'	1	X	X	X	Composite
SW04	S	12/01/21	14:32	0-2'	1	X	X	X	Composite

Work Order Notes

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	P Benner		12-02-21	2	12-2-21 1324	
3				4		
5				6		

Revised Date 051418 Rev 2018 1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1669-1
SDG Number: 31402909.040. Task 02

Login Number: 1669
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1669-1
SDG Number: 31402909.040. Task 02

Login Number: 1669
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 12/03/21 12:45 PM

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

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1684-1
Laboratory Sample Delivery Group: 31402909.040 task 02
Client Project/Site: State QG Com 002H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/14/2021 3:12:34 PM

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

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

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

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Laboratory Job ID: 890-1684-1
SDG: 31402909.040 task 02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Job ID: 890-1684-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1684-1

Receipt
The samples were received on 12/7/2021 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-9097-A-1-D). Evidence of matrix interferences is not obvious.

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

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 and precision for preparation batch 880-14411 and analytical batch 880-14572 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Client Sample ID: FS07

Lab Sample ID: 890-1684-1
Matrix: Solid
Date Collected: 12/02/21 11:15
Date Received: 12/07/21 10:30
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 16:14	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 16:14	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 16:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/08/21 07:34	12/08/21 16:14	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 16:14	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/08/21 07:34	12/08/21 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*12/08/21 07:34*	*12/08/21 16:14*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*12/08/21 07:34*	*12/08/21 16:14*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 15:17	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 15:17	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*12/08/21 15:18*	*12/09/21 15:17*	*1*
o-Terphenyl	*118*		*70 - 130*	*12/08/21 15:18*	*12/09/21 15:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**181**		5.02		mg/Kg			12/12/21 15:57	1

Client Sample ID: FS08

Lab Sample ID: 890-1684-2
Matrix: Solid
Date Collected: 12/02/21 12:20
Date Received: 12/07/21 10:30
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/08/21 07:34	12/08/21 16:35	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/08/21 07:34	12/08/21 16:35	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/08/21 07:34	12/08/21 16:35	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/08/21 07:34	12/08/21 16:35	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/08/21 07:34	12/08/21 16:35	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/08/21 07:34	12/08/21 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*12/08/21 07:34*	*12/08/21 16:35*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Client Sample ID: FS08 Lab Sample ID: 890-1684-2

Date Collected: 12/02/21 12:20 **Matrix: Solid**
Date Received: 12/07/21 10:30
Sample Depth: 5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*12/08/21 07:34*	*12/08/21 16:35*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/08/21 15:18	12/09/21 15:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/08/21 15:18	12/09/21 15:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/08/21 15:18	12/09/21 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*97*		*70 - 130*	*12/08/21 15:18*	*12/09/21 15:37*	*1*
o-Terphenyl	*114*		*70 - 130*	*12/08/21 15:18*	*12/09/21 15:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**154**		4.98	mg/Kg			12/12/21 16:04	1

Client Sample ID: FS09 Lab Sample ID: 890-1684-3

Date Collected: 12/02/21 12:21 **Matrix: Solid**
Date Received: 12/07/21 10:30
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		12/08/21 07:34	12/08/21 16:55	1
Toluene	<0.00198	U	0.00198	mg/Kg		12/08/21 07:34	12/08/21 16:55	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		12/08/21 07:34	12/08/21 16:55	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		12/08/21 07:34	12/08/21 16:55	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		12/08/21 07:34	12/08/21 16:55	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		12/08/21 07:34	12/08/21 16:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*	*12/08/21 07:34*	*12/08/21 16:55*	*1*
1,4-Difluorobenzene (Surr)	*109*		*70 - 130*	*12/08/21 07:34*	*12/08/21 16:55*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/13/21 12:23	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Client Sample ID: FS09

Lab Sample ID: 890-1684-3
Matrix: Solid
Date Collected: 12/02/21 12:21
Date Received: 12/07/21 10:30
Sample Depth: 5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 15:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 15:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*12/08/21 15:18*	*12/09/21 15:56*	*1*
o-Terphenyl	*110*		*70 - 130*	*12/08/21 15:18*	*12/09/21 15:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**384**		4.96		mg/Kg			12/12/21 16:24	1

Client Sample ID: FS10

Lab Sample ID: 890-1684-4
Matrix: Solid
Date Collected: 12/02/21 12:23
Date Received: 12/07/21 10:30
Sample Depth: 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:16	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/08/21 07:34	12/08/21 17:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:16	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/08/21 07:34	12/08/21 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*12/08/21 07:34*	*12/08/21 17:16*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*12/08/21 07:34*	*12/08/21 17:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 16:36	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 16:36	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*12/08/21 15:18*	*12/09/21 16:36*	*1*
o-Terphenyl	*113*		*70 - 130*	*12/08/21 15:18*	*12/09/21 16:36*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Client Sample ID: FS10

Lab Sample ID: 890-1684-4
Matrix: Solid
Date Collected: 12/02/21 12:23
Date Received: 12/07/21 10:30
Sample Depth: 5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**137**		5.04		mg/Kg			12/12/21 16:31	1

Client Sample ID: SW05

Lab Sample ID: 890-1684-5
Matrix: Solid
Date Collected: 12/02/21 11:16
Date Received: 12/07/21 10:30
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:36	1
Ethylbenzene	**0.00275**		0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/08/21 07:34	12/08/21 17:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 17:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/08/21 07:34	12/08/21 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*12/08/21 07:34*	*12/08/21 17:36*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*12/08/21 07:34*	*12/08/21 17:36*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 16:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 16:56	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*12/08/21 15:18*	*12/09/21 16:56*	*1*
o-Terphenyl	*114*		*70 - 130*	*12/08/21 15:18*	*12/09/21 16:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**162**		5.05		mg/Kg			12/12/21 16:37	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Client Sample ID: SW06

Lab Sample ID: 890-1684-6
Matrix: Solid
Date Collected: 12/02/21 12:25
Date Received: 12/07/21 10:30
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 17:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 17:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 17:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/08/21 07:34	12/08/21 17:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/08/21 07:34	12/08/21 17:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/08/21 07:34	12/08/21 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*12/08/21 07:34*	*12/08/21 17:56*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*12/08/21 07:34*	*12/08/21 17:56*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 17:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 17:16	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*12/08/21 15:18*	*12/09/21 17:16*	*1*
o-Terphenyl	*115*		*70 - 130*	*12/08/21 15:18*	*12/09/21 17:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**91.9**		4.99		mg/Kg			12/12/21 17:13	1

Client Sample ID: SW07

Lab Sample ID: 890-1684-7
Matrix: Solid
Date Collected: 12/02/21 12:30
Date Received: 12/07/21 10:30
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 14:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 14:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 14:37	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/08/21 10:17	12/08/21 14:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 14:37	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/08/21 10:17	12/08/21 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*12/08/21 10:17*	*12/08/21 14:37*	*1*

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Client Sample Results

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Client Sample ID: SW07 Lab Sample ID: 890-1684-7

Date Collected: 12/02/21 12:30 **Matrix: Solid**
Date Received: 12/07/21 10:30
Sample Depth: 0 - 5

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*12/08/21 10:17*	*12/08/21 14:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/08/21 15:18	12/09/21 17:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/08/21 15:18	12/09/21 17:35	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/08/21 15:18	12/09/21 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*12/08/21 15:18*	*12/09/21 17:35*	*1*
o-Terphenyl	*119*		*70 - 130*	*12/08/21 15:18*	*12/09/21 17:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.0**		4.97	mg/Kg			12/12/21 17:20	1

Client Sample ID: SW08 Lab Sample ID: 890-1684-8

Date Collected: 12/02/21 12:35 **Matrix: Solid**
Date Received: 12/07/21 10:30
Sample Depth: 0 - 5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/08/21 10:17	12/08/21 14:57	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/08/21 10:17	12/08/21 14:57	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/08/21 10:17	12/08/21 14:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/08/21 10:17	12/08/21 14:57	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/08/21 10:17	12/08/21 14:57	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/08/21 10:17	12/08/21 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*131*	*S1+*	*70 - 130*	*12/08/21 10:17*	*12/08/21 14:57*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*12/08/21 10:17*	*12/08/21 14:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:23	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Client Sample ID: SW08

Date Collected: 12/02/21 12:35
Date Received: 12/07/21 10:30
Sample Depth: 0 - 5

Lab Sample ID: 890-1684-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 17:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 17:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*106*		*70 - 130*	*12/08/21 15:18*	*12/09/21 17:55*	*1*
o-Terphenyl	*128*		*70 - 130*	*12/08/21 15:18*	*12/09/21 17:55*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.9**	**F1**	4.99		mg/Kg			12/12/21 17:26	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
880-9091-A-2-C MSD	Matrix Spike Duplicate	136 S1+	117										
880-9097-A-1-B MS	Matrix Spike	127	97										
880-9097-A-1-C MSD	Matrix Spike Duplicate	128	101										
880-9100-A-1-A MS	Matrix Spike	119	95										
880-9100-A-1-B MSD	Matrix Spike Duplicate	112	104										
890-1684-1	FS07	127	83										
890-1684-2	FS08	123	105										
890-1684-3	FS09	126	109										
890-1684-4	FS10	124	88										
890-1684-5	SW05	108	79										
890-1684-6	SW06	112	101										
890-1684-7	SW07	99	111										
890-1684-8	SW08	131 S1+	76										
LCS 880-14250/1-A	Lab Control Sample	107	101										
LCS 880-14252/1-A	Lab Control Sample	108	100										
LCS 880-14273/1-A	Lab Control Sample	161 S1+	163 S1+										
LCSD 880-14250/2-A	Lab Control Sample Dup	101	101										
LCSD 880-14252/2-A	Lab Control Sample Dup	107	94										
LCSD 880-14273/2-A	Lab Control Sample Dup	160 S1+	151 S1+										
MB 880-14250/5-A	Method Blank	103	111										
MB 880-14252/5-A	Method Blank	120	98										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
880-8945-A-7-D MS	Matrix Spike	97	97										
880-8945-A-7-E MSD	Matrix Spike Duplicate	87	86										
890-1684-1	FS07	99	118										
890-1684-2	FS08	97	114										
890-1684-3	FS09	94	110										
890-1684-4	FS10	97	113										
890-1684-5	SW05	95	114										
890-1684-6	SW06	97	115										
890-1684-7	SW07	98	119										
890-1684-8	SW08	106	128										
LCS 880-14307/2-A	Lab Control Sample	85	88										
LCSD 880-14307/3-A	Lab Control Sample Dup	106	113										
MB 880-14307/1-A	Method Blank	92	108										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14250/5-A
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14250

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 11:27	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 11:27	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 11:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/08/21 07:34	12/08/21 11:27	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 07:34	12/08/21 11:27	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/08/21 07:34	12/08/21 11:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*12/08/21 07:34*	*12/08/21 11:27*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*12/08/21 07:34*	*12/08/21 11:27*	*1*

Lab Sample ID: LCS 880-14250/1-A
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14250

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08082		mg/Kg		81	70 - 130		
Toluene			0.100	0.07619		mg/Kg		76	70 - 130		
Ethylbenzene			0.100	0.07620		mg/Kg		76	70 - 130		
m-Xylene & p-Xylene			0.200	0.1558		mg/Kg		78	70 - 130		
o-Xylene			0.100	0.07842		mg/Kg		78	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-14250/2-A
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14250

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08187		mg/Kg		82	70 - 130	1	35
Toluene			0.100	0.07741		mg/Kg		77	70 - 130	2	35
Ethylbenzene			0.100	0.07694		mg/Kg		77	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1616		mg/Kg		81	70 - 130	4	35
o-Xylene			0.100	0.08049		mg/Kg		80	70 - 130	3	35

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

Lab Sample ID: 880-9091-A-2-C MSD
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14250

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.100	0.05812		mg/Kg					
Toluene	<0.00200	U	0.100	0.05742		mg/Kg					

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

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

Lab Sample ID: 880-9091-A-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14251 — **Prep Batch: 14250**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.100	0.06291		mg/Kg					
m-Xylene & p-Xylene	<0.00400	U	0.200	0.1268		mg/Kg					
o-Xylene	<0.00200	U	0.100	0.06754		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: MB 880-14252/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14253 — **Prep Batch: 14252**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/08/21 10:17	12/08/21 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*12/08/21 10:17*	*12/08/21 13:06*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*12/08/21 10:17*	*12/08/21 13:06*	*1*

Lab Sample ID: LCS 880-14252/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14253 — **Prep Batch: 14252**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08512		mg/Kg		85	70 - 130		
Toluene			0.100	0.09015		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.09030		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1753		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08528		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-14252/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14253 — **Prep Batch: 14252**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07808		mg/Kg		78	70 - 130	9	35
Toluene			0.100	0.08384		mg/Kg		84	70 - 130	7	35
Ethylbenzene			0.100	0.08769		mg/Kg		88	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1657		mg/Kg		83	70 - 130	6	35

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

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

Lab Sample ID: LCSD 880-14252/2-A
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14252

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene			0.100	0.08314		mg/Kg		83	70 - 130	3	35

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

Lab Sample ID: 880-9097-A-1-B MS
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.100	0.07497		mg/Kg		75	70 - 130
Toluene	<0.00200	U	0.100	0.08735		mg/Kg		87	70 - 130
Ethylbenzene	<0.00200	U	0.100	0.09657		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1899		mg/Kg		95	70 - 130
o-Xylene	<0.00200	U	0.100	0.08976		mg/Kg		90	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-9097-A-1-C MSD
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.07730		mg/Kg		77	70 - 130	3	35
Toluene	<0.00200	U	0.101	0.09205		mg/Kg		91	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.101	0.09924		mg/Kg		98	70 - 130	3	35
m-Xylene & p-Xylene	<0.00401	U	0.202	0.1995		mg/Kg		99	70 - 130	5	35
o-Xylene	<0.00200	U	0.101	0.09883		mg/Kg		98	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCS 880-14273/1-A
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14273

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.100	0.07167		mg/Kg		72	70 - 130
Toluene			0.100	0.07530		mg/Kg		75	70 - 130
Ethylbenzene			0.100	0.08603		mg/Kg		86	70 - 130
m-Xylene & p-Xylene			0.200	0.1795		mg/Kg		90	70 - 130
o-Xylene			0.100	0.09064		mg/Kg		91	70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

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

Lab Sample ID: LCS 880-14273/1-A
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14273

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	161	S1+	70 - 130
1,4-Difluorobenzene (Surr)	163	S1+	70 - 130

Lab Sample ID: LCSD 880-14273/2-A
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14273

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08252		mg/Kg		83	70 - 130	14	35
Toluene			0.100	0.09017		mg/Kg		90	70 - 130	18	35
Ethylbenzene			0.100	0.1010		mg/Kg		101	70 - 130	16	35
m-Xylene & p-Xylene			0.200	0.2086		mg/Kg		104	70 - 130	15	35
o-Xylene			0.100	0.1087		mg/Kg		109	70 - 130	18	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	160	S1+	70 - 130
1,4-Difluorobenzene (Surr)	151	S1+	70 - 130

Lab Sample ID: 880-9100-A-1-A MS
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14273

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U F1	0.0998	0.05637	F1	mg/Kg		56	70 - 130
Toluene	<0.00199	U F1	0.0998	0.05849	F1	mg/Kg		58	70 - 130
Ethylbenzene	<0.00199	U F1	0.0998	0.05626	F1	mg/Kg		56	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1200	F1	mg/Kg		60	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.05775	F1	mg/Kg		58	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-9100-A-1-B MSD
Matrix: Solid
Analysis Batch: 14251

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14273

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.100	0.07090		mg/Kg		70	70 - 130	23	35
Toluene	<0.00199	U F1	0.100	0.06809	F1	mg/Kg		67	70 - 130	15	35
Ethylbenzene	<0.00199	U F1	0.100	0.06729	F1	mg/Kg		67	70 - 130	18	35
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.1375	F1	mg/Kg		68	70 - 130	14	35
o-Xylene	<0.00199	U F1	0.100	0.06824	F1	mg/Kg		68	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	112		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

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

Lab Sample ID: MB 880-14307/1-A
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14307

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 11:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 11:22	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*12/08/21 15:18*	*12/09/21 11:22*	*1*
o-Terphenyl	*108*		*70 - 130*	*12/08/21 15:18*	*12/09/21 11:22*	*1*

Lab Sample ID: LCS 880-14307/2-A
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14307

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	822.1		mg/Kg		82	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	881.9		mg/Kg		88	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: LCSD 880-14307/3-A
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14307

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	997.8		mg/Kg		100	70 - 130	19	20
Diesel Range Organics (Over C10-C28)			1000	1069		mg/Kg		107	70 - 130	19	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*113*		*70 - 130*

Lab Sample ID: 880-8945-A-7-D MS
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14307

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1220		mg/Kg		122	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1298		mg/Kg		128	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

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

Lab Sample ID: 880-8945-A-7-D MS
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14307

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

Lab Sample ID: 880-8945-A-7-E MSD
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14307

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1123		mg/Kg		112	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1153		mg/Kg		113	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	86		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14411/1-A
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/12/21 15:04	1

Lab Sample ID: LCS 880-14411/2-A
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	260.6		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-14411/3-A
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	264.2		mg/Kg		106	90 - 110	1	20

Lab Sample ID: 890-1684-8 MS
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: SW08
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	72.9	F1	250	350.8	F1	mg/Kg		111	90 - 110		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1684-8 MSD **Client Sample ID: SW08**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 14572

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	72.9	F1	250	350.7	F1	mg/Kg		111	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

GC VOA

Prep Batch: 14250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Total/NA	Solid	5035	
890-1684-2	FS08	Total/NA	Solid	5035	
890-1684-3	FS09	Total/NA	Solid	5035	
890-1684-4	FS10	Total/NA	Solid	5035	
890-1684-5	SW05	Total/NA	Solid	5035	
890-1684-6	SW06	Total/NA	Solid	5035	
MB 880-14250/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14250/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14250/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9091-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 14251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Total/NA	Solid	8021B	14250
890-1684-2	FS08	Total/NA	Solid	8021B	14250
890-1684-3	FS09	Total/NA	Solid	8021B	14250
890-1684-4	FS10	Total/NA	Solid	8021B	14250
890-1684-5	SW05	Total/NA	Solid	8021B	14250
890-1684-6	SW06	Total/NA	Solid	8021B	14250
MB 880-14250/5-A	Method Blank	Total/NA	Solid	8021B	14250
LCS 880-14250/1-A	Lab Control Sample	Total/NA	Solid	8021B	14250
LCS 880-14273/1-A	Lab Control Sample	Total/NA	Solid	8021B	14273
LCSD 880-14250/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14250
LCSD 880-14273/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14273
880-9091-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14250
880-9100-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	14273
880-9100-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14273

Prep Batch: 14252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-7	SW07	Total/NA	Solid	5035	
890-1684-8	SW08	Total/NA	Solid	5035	
MB 880-14252/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14252/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14252/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9097-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-9097-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 14253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-7	SW07	Total/NA	Solid	8021B	14252
890-1684-8	SW08	Total/NA	Solid	8021B	14252
MB 880-14252/5-A	Method Blank	Total/NA	Solid	8021B	14252
LCS 880-14252/1-A	Lab Control Sample	Total/NA	Solid	8021B	14252
LCSD 880-14252/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14252
880-9097-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	14252
880-9097-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14252

Prep Batch: 14273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-14273/1-A	Lab Control Sample	Total/NA	Solid	5035	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

GC VOA (Continued)

Prep Batch: 14273 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-14273/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9100-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-9100-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 14648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Total/NA	Solid	Total BTEX	
890-1684-2	FS08	Total/NA	Solid	Total BTEX	
890-1684-3	FS09	Total/NA	Solid	Total BTEX	
890-1684-4	FS10	Total/NA	Solid	Total BTEX	
890-1684-5	SW05	Total/NA	Solid	Total BTEX	
890-1684-6	SW06	Total/NA	Solid	Total BTEX	
890-1684-7	SW07	Total/NA	Solid	Total BTEX	
890-1684-8	SW08	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 14307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Total/NA	Solid	8015NM Prep	
890-1684-2	FS08	Total/NA	Solid	8015NM Prep	
890-1684-3	FS09	Total/NA	Solid	8015NM Prep	
890-1684-4	FS10	Total/NA	Solid	8015NM Prep	
890-1684-5	SW05	Total/NA	Solid	8015NM Prep	
890-1684-6	SW06	Total/NA	Solid	8015NM Prep	
890-1684-7	SW07	Total/NA	Solid	8015NM Prep	
890-1684-8	SW08	Total/NA	Solid	8015NM Prep	
MB 880-14307/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14307/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14307/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8945-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8945-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Total/NA	Solid	8015B NM	14307
890-1684-2	FS08	Total/NA	Solid	8015B NM	14307
890-1684-3	FS09	Total/NA	Solid	8015B NM	14307
890-1684-4	FS10	Total/NA	Solid	8015B NM	14307
890-1684-5	SW05	Total/NA	Solid	8015B NM	14307
890-1684-6	SW06	Total/NA	Solid	8015B NM	14307
890-1684-7	SW07	Total/NA	Solid	8015B NM	14307
890-1684-8	SW08	Total/NA	Solid	8015B NM	14307
MB 880-14307/1-A	Method Blank	Total/NA	Solid	8015B NM	14307
LCS 880-14307/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14307
LCSD 880-14307/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14307
880-8945-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	14307
880-8945-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14307

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

GC Semi VOA

Analysis Batch: 14652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Total/NA	Solid	8015 NM	
890-1684-2	FS08	Total/NA	Solid	8015 NM	
890-1684-3	FS09	Total/NA	Solid	8015 NM	
890-1684-4	FS10	Total/NA	Solid	8015 NM	
890-1684-5	SW05	Total/NA	Solid	8015 NM	
890-1684-6	SW06	Total/NA	Solid	8015 NM	
890-1684-7	SW07	Total/NA	Solid	8015 NM	
890-1684-8	SW08	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 14411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Soluble	Solid	DI Leach	
890-1684-2	FS08	Soluble	Solid	DI Leach	
890-1684-3	FS09	Soluble	Solid	DI Leach	
890-1684-4	FS10	Soluble	Solid	DI Leach	
890-1684-5	SW05	Soluble	Solid	DI Leach	
890-1684-6	SW06	Soluble	Solid	DI Leach	
890-1684-7	SW07	Soluble	Solid	DI Leach	
890-1684-8	SW08	Soluble	Solid	DI Leach	
MB 880-14411/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14411/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14411/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1684-8 MS	SW08	Soluble	Solid	DI Leach	
890-1684-8 MSD	SW08	Soluble	Solid	DI Leach	

Analysis Batch: 14572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1684-1	FS07	Soluble	Solid	300.0	14411
890-1684-2	FS08	Soluble	Solid	300.0	14411
890-1684-3	FS09	Soluble	Solid	300.0	14411
890-1684-4	FS10	Soluble	Solid	300.0	14411
890-1684-5	SW05	Soluble	Solid	300.0	14411
890-1684-6	SW06	Soluble	Solid	300.0	14411
890-1684-7	SW07	Soluble	Solid	300.0	14411
890-1684-8	SW08	Soluble	Solid	300.0	14411
MB 880-14411/1-A	Method Blank	Soluble	Solid	300.0	14411
LCS 880-14411/2-A	Lab Control Sample	Soluble	Solid	300.0	14411
LCSD 880-14411/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14411
890-1684-8 MS	SW08	Soluble	Solid	300.0	14411
890-1684-8 MSD	SW08	Soluble	Solid	300.0	14411

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Client Sample ID: FS07

Lab Sample ID: 890-1684-1
Matrix: Solid
Date Collected: 12/02/21 11:15
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	14250	12/08/21 07:34	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14251	12/08/21 16:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 15:17	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 15:57	CH	XEN MID

Client Sample ID: FS08

Lab Sample ID: 890-1684-2
Matrix: Solid
Date Collected: 12/02/21 12:20
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14250	12/08/21 07:34	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14251	12/08/21 16:35	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 15:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 16:04	CH	XEN MID

Client Sample ID: FS09

Lab Sample ID: 890-1684-3
Matrix: Solid
Date Collected: 12/02/21 12:21
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	14250	12/08/21 07:34	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14251	12/08/21 16:55	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 15:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 16:24	CH	XEN MID

Client Sample ID: FS10

Lab Sample ID: 890-1684-4
Matrix: Solid
Date Collected: 12/02/21 12:23
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	14250	12/08/21 07:34	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14251	12/08/21 17:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Client Sample ID: FS10 Lab Sample ID: 890-1684-4

Date Collected: 12/02/21 12:23 **Matrix: Solid**
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 16:36	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 16:31	CH	XEN MID

Client Sample ID: SW05 Lab Sample ID: 890-1684-5

Date Collected: 12/02/21 11:16 **Matrix: Solid**
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	14250	12/08/21 07:34	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14251	12/08/21 17:36	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 16:56	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 16:37	CH	XEN MID

Client Sample ID: SW06 Lab Sample ID: 890-1684-6

Date Collected: 12/02/21 12:25 **Matrix: Solid**
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	14250	12/08/21 07:34	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14251	12/08/21 17:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 17:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 17:13	CH	XEN MID

Client Sample ID: SW07 Lab Sample ID: 890-1684-7

Date Collected: 12/02/21 12:30 **Matrix: Solid**
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	14252	12/08/21 10:17	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14253	12/08/21 14:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 17:35	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Client Sample ID: SW07

Date Collected: 12/02/21 12:30
Date Received: 12/07/21 10:30

Lab Sample ID: 890-1684-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 17:20	CH	XEN MID

Client Sample ID: SW08

Date Collected: 12/02/21 12:35
Date Received: 12/07/21 10:30

Lab Sample ID: 890-1684-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	14252	12/08/21 10:17	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14253	12/08/21 14:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 17:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 17:26	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1684-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1684-1
SDG: 31402909.040 task 02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1684-1	FS07	Solid	12/02/21 11:15	12/07/21 10:30	5
890-1684-2	FS08	Solid	12/02/21 12:20	12/07/21 10:30	5
890-1684-3	FS09	Solid	12/02/21 12:21	12/07/21 10:30	5
890-1684-4	FS10	Solid	12/02/21 12:23	12/07/21 10:30	5
890-1684-5	SW05	Solid	12/02/21 11:16	12/07/21 10:30	0 - 5
890-1684-6	SW06	Solid	12/02/21 12:25	12/07/21 10:30	0 - 5
890-1684-7	SW07	Solid	12/02/21 12:30	12/07/21 10:30	0 - 5
890-1684-8	SW08	Solid	12/02/21 12:35	12/07/21 10:30	0 - 5

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

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12/14/2021

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

Work Order Comments

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

Project Name:	State QG Com 002H	Turn Around	
Project Number:	31402909.040 Task 02	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Temperature (°C):	1.4/1.2	Thermometer ID	TRM007	
Received Intact:	(Yes) No			
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

ANALYSIS REQUEST

890-1684 Chain of Custody

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS07	S	12/02/21	11:15	5'	1	X	X	X	Composite
FS08	S	12/02/21	12:20	5'	1	X	X	X	Composite
FS09	S	12/02/21	12:21	5'	1	X	X	X	Composite
FS10	S	12/02/21	12:23	5'	1	X	X	X	Composite
SW05	S	12/02/21	11:16	0-5'	1	X	X	X	Composite
SW06	S	12/02/21	12:25	0-5'	1	X	X	X	Composite
SW07	S	12/02/21	12:30	0-5'	1	X	X	X	Composite
SW08	S	12/02/21	12:35	0-5'	1	X	X	X	Composite

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 P Benner		12-7-21/8:00	2		12-7-21 1030
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1684-1
SDG Number: 31402909.040 task 02

Login Number: 1684
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1684-1
SDG Number: 31402909.040 task 02

Login Number: 1684
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland
List Creation: 12/08/21 11:57 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1685-1
Laboratory Sample Delivery Group: 31402909.040 task 02
Client Project/Site: State QG Com 002H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/13/2021 3:07:22 PM

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

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

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

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Laboratory Job ID: 890-1685-1
SDG: 31402909.040 task 02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1685-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1685-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Job ID: 890-1685-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1685-1

Receipt
The samples were received on 12/7/2021 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-9097-A-1-D). Evidence of matrix interferences is not obvious.

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

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 and precision for preparation batch 880-14411 and analytical batch 880-14572 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Client Sample ID: FS11

Lab Sample ID: 890-1685-1
Matrix: Solid
Date Collected: 12/06/21 12:30
Date Received: 12/07/21 10:30
Sample Depth: 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 15:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 15:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 15:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/08/21 10:17	12/08/21 15:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 15:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/08/21 10:17	12/08/21 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*12/08/21 10:17*	*12/08/21 15:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*12/08/21 10:17*	*12/08/21 15:18*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 13:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 13:58	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*12/08/21 15:18*	*12/09/21 13:58*	*1*
o-Terphenyl	*115*		*70 - 130*	*12/08/21 15:18*	*12/09/21 13:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**148**		5.01		mg/Kg			12/12/21 17:46	1

Client Sample ID: FS12

Lab Sample ID: 890-1685-2
Matrix: Solid
Date Collected: 12/06/21 12:43
Date Received: 12/07/21 10:30
Sample Depth: 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/08/21 10:17	12/08/21 15:38	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/08/21 10:17	12/08/21 15:38	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/08/21 10:17	12/08/21 15:38	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		12/08/21 10:17	12/08/21 15:38	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/08/21 10:17	12/08/21 15:38	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		12/08/21 10:17	12/08/21 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*12/08/21 10:17*	*12/08/21 15:38*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Client Sample ID: FS12

Lab Sample ID: 890-1685-2
Matrix: Solid
Date Collected: 12/06/21 12:43
Date Received: 12/07/21 10:30
Sample Depth: 7

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*12/08/21 10:17*	*12/08/21 15:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/08/21 15:18	12/09/21 14:18	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/08/21 15:18	12/09/21 14:18	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/08/21 15:18	12/09/21 14:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*87*		*70 - 130*	*12/08/21 15:18*	*12/09/21 14:18*	*1*
o-Terphenyl	*101*		*70 - 130*	*12/08/21 15:18*	*12/09/21 14:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**172**		5.05		mg/Kg			12/12/21 17:53	1

Client Sample ID: SW09

Lab Sample ID: 890-1685-3
Matrix: Solid
Date Collected: 12/06/21 12:46
Date Received: 12/07/21 10:30
Sample Depth: 0 - 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/08/21 10:17	12/08/21 15:59	1
Toluene	<0.00201	U	0.00201		mg/Kg		12/08/21 10:17	12/08/21 15:59	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/08/21 10:17	12/08/21 15:59	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/08/21 10:17	12/08/21 15:59	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/08/21 10:17	12/08/21 15:59	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/08/21 10:17	12/08/21 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*12/08/21 10:17*	*12/08/21 15:59*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*12/08/21 10:17*	*12/08/21 15:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:23	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Client Sample ID: SW09

Lab Sample ID: 890-1685-3
Matrix: Solid
Date Collected: 12/06/21 12:46
Date Received: 12/07/21 10:30
Sample Depth: 0 - 7

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 14:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 14:38	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/08/21 15:18	12/09/21 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*12/08/21 15:18*	*12/09/21 14:38*	*1*
o-Terphenyl	*110*		*70 - 130*	*12/08/21 15:18*	*12/09/21 14:38*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**62.6**		4.95		mg/Kg			12/12/21 18:13	1

Client Sample ID: SW10

Lab Sample ID: 890-1685-4
Matrix: Solid
Date Collected: 12/06/21 12:50
Date Received: 12/07/21 10:30
Sample Depth: 0 - 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/08/21 10:17	12/08/21 16:19	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/08/21 10:17	12/08/21 16:19	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/08/21 10:17	12/08/21 16:19	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/08/21 10:17	12/08/21 16:19	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/08/21 10:17	12/08/21 16:19	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/08/21 10:17	12/08/21 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*12/08/21 10:17*	*12/08/21 16:19*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*12/08/21 10:17*	*12/08/21 16:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/08/21 15:18	12/09/21 14:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/08/21 15:18	12/09/21 14:57	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/08/21 15:18	12/09/21 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*12/08/21 15:18*	*12/09/21 14:57*	*1*
o-Terphenyl	*114*		*70 - 130*	*12/08/21 15:18*	*12/09/21 14:57*	*1*

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Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Client Sample ID: SW10
Date Collected: 12/06/21 12:50
Date Received: 12/07/21 10:30
Sample Depth: 0 - 7

Lab Sample ID: 890-1685-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.3		5.02		mg/Kg			12/12/21 18:19	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9097-A-1-B MS	Matrix Spike	127	97
880-9097-A-1-C MSD	Matrix Spike Duplicate	128	101
890-1685-1	FS11	120	101
890-1685-2	FS12	102	90
890-1685-3	SW09	105	92
890-1685-4	SW10	110	89
LCS 880-14252/1-A	Lab Control Sample	108	100
LCSD 880-14252/2-A	Lab Control Sample Dup	107	94
MB 880-14252/5-A	Method Blank	120	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-8945-A-7-D MS	Matrix Spike	97	97
880-8945-A-7-E MSD	Matrix Spike Duplicate	87	86
890-1685-1	FS11	99	115
890-1685-2	FS12	87	101
890-1685-3	SW09	95	110
890-1685-4	SW10	98	114
LCS 880-14307/2-A	Lab Control Sample	85	88
LCSD 880-14307/3-A	Lab Control Sample Dup	106	113
MB 880-14307/1-A	Method Blank	92	108

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14252/5-A
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14252

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:17	12/08/21 13:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/08/21 10:17	12/08/21 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*12/08/21 10:17*	*12/08/21 13:06*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*12/08/21 10:17*	*12/08/21 13:06*	*1*

Lab Sample ID: LCS 880-14252/1-A
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14252

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08512		mg/Kg		85	70 - 130		
Toluene			0.100	0.09015		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.09030		mg/Kg		90	70 - 130		
m-Xylene & p-Xylene			0.200	0.1753		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.08528		mg/Kg		85	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-14252/2-A
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14252

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07808		mg/Kg		78	70 - 130	9	35
Toluene			0.100	0.08384		mg/Kg		84	70 - 130	7	35
Ethylbenzene			0.100	0.08769		mg/Kg		88	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1657		mg/Kg		83	70 - 130	6	35
o-Xylene			0.100	0.08314		mg/Kg		83	70 - 130	3	35

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

Lab Sample ID: 880-9097-A-1-B MS
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00200	U	0.100	0.07497		mg/Kg		75	70 - 130		
Toluene	<0.00200	U	0.100	0.08735		mg/Kg		87	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

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

Lab Sample ID: 880-9097-A-1-B MS
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00200	U	0.100	0.09657		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1899		mg/Kg		95	70 - 130
o-Xylene	<0.00200	U	0.100	0.08976		mg/Kg		90	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-9097-A-1-C MSD
Matrix: Solid
Analysis Batch: 14253

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.101	0.07730		mg/Kg		77	70 - 130	3	35
Toluene	<0.00200	U	0.101	0.09205		mg/Kg		91	70 - 130	5	35
Ethylbenzene	<0.00200	U	0.101	0.09924		mg/Kg		98	70 - 130	3	35
m-Xylene & p-Xylene	<0.00401	U	0.202	0.1995		mg/Kg		99	70 - 130	5	35
o-Xylene	<0.00200	U	0.101	0.09883		mg/Kg		98	70 - 130	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-14307/1-A
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14307

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 11:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 11:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/08/21 15:18	12/09/21 11:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*12/08/21 15:18*	*12/09/21 11:22*	*1*
o-Terphenyl	*108*		*70 - 130*	*12/08/21 15:18*	*12/09/21 11:22*	*1*

Lab Sample ID: LCS 880-14307/2-A
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14307

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	822.1		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)			1000	881.9		mg/Kg		88	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

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

Lab Sample ID: LCS 880-14307/2-A
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14307

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: LCSD 880-14307/3-A
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14307

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	997.8		mg/Kg		100	70 - 130	19	20
Diesel Range Organics (Over C10-C28)			1000	1069		mg/Kg		107	70 - 130	19	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 880-8945-A-7-D MS
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14307

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1220		mg/Kg		122	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1298		mg/Kg		128	70 - 130

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

Lab Sample ID: 880-8945-A-7-E MSD
Matrix: Solid
Analysis Batch: 14326

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14307

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1123		mg/Kg		112	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1153		mg/Kg		113	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	86		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14411/1-A
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/12/21 15:04	1

Lab Sample ID: LCS 880-14411/2-A
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	260.6		mg/Kg		104	90 - 110		

Lab Sample ID: LCSD 880-14411/3-A
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	264.2		mg/Kg		106	90 - 110	1	20

Lab Sample ID: 890-1684-A-8-I MS
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	72.9	F1	250	350.8	F1	mg/Kg		111	90 - 110		

Lab Sample ID: 890-1684-A-8-J MSD
Matrix: Solid
Analysis Batch: 14572

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	72.9	F1	250	350.7	F1	mg/Kg		111	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1685-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

GC VOA

Prep Batch: 14252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Total/NA	Solid	5035	
890-1685-2	FS12	Total/NA	Solid	5035	
890-1685-3	SW09	Total/NA	Solid	5035	
890-1685-4	SW10	Total/NA	Solid	5035	
MB 880-14252/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14252/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14252/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9097-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-9097-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 14253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Total/NA	Solid	8021B	14252
890-1685-2	FS12	Total/NA	Solid	8021B	14252
890-1685-3	SW09	Total/NA	Solid	8021B	14252
890-1685-4	SW10	Total/NA	Solid	8021B	14252
MB 880-14252/5-A	Method Blank	Total/NA	Solid	8021B	14252
LCS 880-14252/1-A	Lab Control Sample	Total/NA	Solid	8021B	14252
LCSD 880-14252/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14252
880-9097-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	14252
880-9097-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14252

Analysis Batch: 14648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Total/NA	Solid	Total BTEX	
890-1685-2	FS12	Total/NA	Solid	Total BTEX	
890-1685-3	SW09	Total/NA	Solid	Total BTEX	
890-1685-4	SW10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 14307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Total/NA	Solid	8015NM Prep	
890-1685-2	FS12	Total/NA	Solid	8015NM Prep	
890-1685-3	SW09	Total/NA	Solid	8015NM Prep	
890-1685-4	SW10	Total/NA	Solid	8015NM Prep	
MB 880-14307/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14307/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14307/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8945-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8945-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Total/NA	Solid	8015B NM	14307
890-1685-2	FS12	Total/NA	Solid	8015B NM	14307
890-1685-3	SW09	Total/NA	Solid	8015B NM	14307
890-1685-4	SW10	Total/NA	Solid	8015B NM	14307
MB 880-14307/1-A	Method Blank	Total/NA	Solid	8015B NM	14307
LCS 880-14307/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14307

QC Association Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

GC Semi VOA (Continued)

Analysis Batch: 14326 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-14307/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14307
880-8945-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	14307
880-8945-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14307

Analysis Batch: 14652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Total/NA	Solid	8015 NM	
890-1685-2	FS12	Total/NA	Solid	8015 NM	
890-1685-3	SW09	Total/NA	Solid	8015 NM	
890-1685-4	SW10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 14411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Soluble	Solid	DI Leach	
890-1685-2	FS12	Soluble	Solid	DI Leach	
890-1685-3	SW09	Soluble	Solid	DI Leach	
890-1685-4	SW10	Soluble	Solid	DI Leach	
MB 880-14411/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14411/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14411/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1684-A-8-I MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1684-A-8-J MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 14572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1685-1	FS11	Soluble	Solid	300.0	14411
890-1685-2	FS12	Soluble	Solid	300.0	14411
890-1685-3	SW09	Soluble	Solid	300.0	14411
890-1685-4	SW10	Soluble	Solid	300.0	14411
MB 880-14411/1-A	Method Blank	Soluble	Solid	300.0	14411
LCS 880-14411/2-A	Lab Control Sample	Soluble	Solid	300.0	14411
LCSD 880-14411/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14411
890-1684-A-8-I MS	Matrix Spike	Soluble	Solid	300.0	14411
890-1684-A-8-J MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	14411

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Client Sample ID: FS11

Lab Sample ID: 890-1685-1
Matrix: Solid
Date Collected: 12/06/21 12:30
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	14252	12/08/21 10:17	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14253	12/08/21 15:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 13:58	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 17:46	CH	XEN MID

Client Sample ID: FS12

Lab Sample ID: 890-1685-2
Matrix: Solid
Date Collected: 12/06/21 12:43
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	14252	12/08/21 10:17	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14253	12/08/21 15:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 14:18	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 17:53	CH	XEN MID

Client Sample ID: SW09

Lab Sample ID: 890-1685-3
Matrix: Solid
Date Collected: 12/06/21 12:46
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	14252	12/08/21 10:17	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14253	12/08/21 15:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 14:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 18:13	CH	XEN MID

Client Sample ID: SW10

Lab Sample ID: 890-1685-4
Matrix: Solid
Date Collected: 12/06/21 12:50
Date Received: 12/07/21 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	14252	12/08/21 10:17	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14253	12/08/21 16:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Client Sample ID: SW10

Date Collected: 12/06/21 12:50
Date Received: 12/07/21 10:30

Lab Sample ID: 890-1685-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	14307	12/08/21 15:18	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14326	12/09/21 14:57	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	14411	12/09/21 16:58	CA	XEN MID
Soluble	Analysis	300.0		1			14572	12/12/21 18:19	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1685-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1685-1
Project/Site: State QG Com 002H SDG: 31402909.040 task 02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1685-1
SDG: 31402909.040 task 02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1685-1	FS11	Solid	12/06/21 12:30	12/07/21 10:30	7
890-1685-2	FS12	Solid	12/06/21 12:43	12/07/21 10:30	7
890-1685-3	SW09	Solid	12/06/21 12:46	12/07/21 10:30	0 - 7
890-1685-4	SW10	Solid	12/06/21 12:50	12/07/21 10:30	0 - 7

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

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12/13/2021

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

Work Order Comments

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

Project Name:	State QG Com 002H	Turn Around	
Project Number:	31402909.040 Task 02	Routine	☒
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	14/1.2	Thermometer ID		
Received Intact:	(Yes) No		TNM-007	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes (No) N/A	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS11	S	12/06/21	12:30	7'	1	X	X	X	Composite
FS12	S	12/06/21	12:43	7'	1	X	X	X	Composite
SW09	S	12/06/21	12:46	0-7'	1	X	X	X	Composite
SW10	S	12/06/21	12:50	0-7'	1	X	X	X	Composite

890-1685 Chain of Custody

Work Order Notes

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner		12-7-21 1400	2		12-7-21 1030
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1685-1
SDG Number: 31402909.040 task 02

Login Number: 1685
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1685-1
SDG Number: 31402909.040 task 02

Login Number: 1685
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland
List Creation: 12/08/21 11:57 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1689-1
Laboratory Sample Delivery Group: 31402909.0404 Task 02
Client Project/Site: State QG Com 002H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/16/2021 11:17:48 AM

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

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

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

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Laboratory Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

Job ID: 890-1689-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1689-1

Receipt
The samples were received on 12/8/2021 11:32 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

GC VOA
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 and precision for preparation batch 880-14498 and analytical batch 880-14772 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS13

Lab Sample ID: 890-1689-1
Matrix: Solid
Date Collected: 12/07/21 08:47
Date Received: 12/08/21 11:32
Sample Depth: 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 16:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 16:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 16:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 16:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 16:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*12/09/21 07:30*	*12/09/21 16:52*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*12/09/21 07:30*	*12/09/21 16:52*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/14/21 10:16	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/10/21 15:20	12/11/21 00:14	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/10/21 15:20	12/11/21 00:14	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/10/21 15:20	12/11/21 00:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*12/10/21 15:20*	*12/11/21 00:14*	*1*
o-Terphenyl	*101*		*70 - 130*	*12/10/21 15:20*	*12/11/21 00:14*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**190**		4.99		mg/Kg			12/14/21 11:36	1

Client Sample ID: FS14

Lab Sample ID: 890-1689-2
Matrix: Solid
Date Collected: 12/07/21 08:49
Date Received: 12/08/21 11:32
Sample Depth: 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 17:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 17:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 17:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 17:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 17:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*148*	*S1+*	*70 - 130*	*12/09/21 07:30*	*12/09/21 17:19*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS14

Lab Sample ID: 890-1689-2
Matrix: Solid
Date Collected: 12/07/21 08:49
Date Received: 12/08/21 11:32
Sample Depth: 7

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*12/09/21 07:30*	*12/09/21 17:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/14/21 10:16	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 00:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 00:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*94*		*70 - 130*	*12/10/21 15:20*	*12/11/21 00:35*	*1*
o-Terphenyl	*103*		*70 - 130*	*12/10/21 15:20*	*12/11/21 00:35*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36.9**		4.99		mg/Kg			12/14/21 11:43	1

Client Sample ID: FS15

Lab Sample ID: 890-1689-3
Matrix: Solid
Date Collected: 12/07/21 08:50
Date Received: 12/08/21 11:32
Sample Depth: 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/09/21 07:30	12/09/21 17:46	1
Toluene	<0.00198	U	0.00198		mg/Kg		12/09/21 07:30	12/09/21 17:46	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		12/09/21 07:30	12/09/21 17:46	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		12/09/21 07:30	12/09/21 17:46	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		12/09/21 07:30	12/09/21 17:46	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		12/09/21 07:30	12/09/21 17:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*142*	*S1+*	*70 - 130*	*12/09/21 07:30*	*12/09/21 17:46*	*1*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*	*12/09/21 07:30*	*12/09/21 17:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			12/14/21 10:16	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/13/21 12:23	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

Client Sample ID: FS15 Lab Sample ID: 890-1689-3

Date Collected: 12/07/21 08:50 **Matrix: Solid**
Date Received: 12/08/21 11:32
Sample Depth: 7

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/10/21 15:20	12/11/21 00:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/10/21 15:20	12/11/21 00:56	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/10/21 15:20	12/11/21 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*12/10/21 15:20*	*12/11/21 00:56*	*1*
o-Terphenyl	*94*		*70 - 130*	*12/10/21 15:20*	*12/11/21 00:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.8**		5.00		mg/Kg			12/14/21 11:50	1

Client Sample ID: FS16 Lab Sample ID: 890-1689-4

Date Collected: 12/07/21 10:21 **Matrix: Solid**
Date Received: 12/08/21 11:32
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 18:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 18:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 18:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 18:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 18:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*	*12/09/21 07:30*	*12/09/21 18:13*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*12/09/21 07:30*	*12/09/21 18:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 01:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 01:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*12/10/21 15:20*	*12/11/21 01:18*	*1*
o-Terphenyl	*100*		*70 - 130*	*12/10/21 15:20*	*12/11/21 01:18*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS16

Lab Sample ID: 890-1689-4
Matrix: Solid
Date Collected: 12/07/21 10:21
Date Received: 12/08/21 11:32
Sample Depth: 2

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.91		5.00		mg/Kg			12/14/21 11:56	1

Client Sample ID: FS17

Lab Sample ID: 890-1689-5
Matrix: Solid
Date Collected: 12/07/21 10:23
Date Received: 12/08/21 11:32
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 18:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 18:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 18:40	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		12/09/21 07:30	12/09/21 18:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 18:40	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		12/09/21 07:30	12/09/21 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*178*	*S1+*	*70 - 130*	*12/09/21 07:30*	*12/09/21 18:40*	*1*
1,4-Difluorobenzene (Surr)	*129*		*70 - 130*	*12/09/21 07:30*	*12/09/21 18:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 01:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 01:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*12/10/21 15:20*	*12/11/21 01:39*	*1*
o-Terphenyl	*99*		*70 - 130*	*12/10/21 15:20*	*12/11/21 01:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	87.1		4.95		mg/Kg			12/14/21 12:03	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS18

Lab Sample ID: 890-1689-6
Matrix: Solid
Date Collected: 12/07/21 11:08
Date Received: 12/08/21 11:32
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 19:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 19:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 19:06	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/09/21 07:30	12/09/21 19:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 19:06	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/09/21 07:30	12/09/21 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*153*	*S1+*	*70 - 130*	*12/09/21 07:30*	*12/09/21 19:06*	*1*
1,4-Difluorobenzene (Surr)	*129*		*70 - 130*	*12/09/21 07:30*	*12/09/21 19:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 02:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 02:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 02:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*97*		*70 - 130*	*12/10/21 15:20*	*12/11/21 02:01*	*1*
o-Terphenyl	*104*		*70 - 130*	*12/10/21 15:20*	*12/11/21 02:01*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.2**		4.98		mg/Kg			12/14/21 12:10	1

Client Sample ID: FS19

Lab Sample ID: 890-1689-7
Matrix: Solid
Date Collected: 12/07/21 11:11
Date Received: 12/08/21 11:32
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 19:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 19:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 19:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 19:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/09/21 07:30	12/09/21 19:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 07:30	12/09/21 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*141*	*S1+*	*70 - 130*	*12/09/21 07:30*	*12/09/21 19:32*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS19

Lab Sample ID: 890-1689-7
Matrix: Solid
Date Collected: 12/07/21 11:11
Date Received: 12/08/21 11:32
Sample Depth: 2

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*123*		*70 - 130*	*12/09/21 07:30*	*12/09/21 19:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/10/21 15:20	12/11/21 02:44	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/10/21 15:20	12/11/21 02:44	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/10/21 15:20	12/11/21 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*12/10/21 15:20*	*12/11/21 02:44*	*1*
o-Terphenyl	*93*		*70 - 130*	*12/10/21 15:20*	*12/11/21 02:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.33**		4.98	mg/Kg			12/14/21 18:09	1

Client Sample ID: FS20

Lab Sample ID: 890-1689-8
Matrix: Solid
Date Collected: 12/07/21 13:31
Date Received: 12/08/21 11:32
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 19:58	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 19:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 19:58	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/09/21 07:30	12/09/21 19:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 19:58	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/09/21 07:30	12/09/21 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*12/09/21 07:30*	*12/09/21 19:58*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*12/09/21 07:30*	*12/09/21 19:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:32	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

Client Sample ID: FS20 Lab Sample ID: 890-1689-8

Date Collected: 12/07/21 13:31 **Matrix: Solid**
Date Received: 12/08/21 11:32
Sample Depth: 4

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 03:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 03:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 03:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*12/10/21 15:20*	*12/11/21 03:06*	*1*
o-Terphenyl	*101*		*70 - 130*	*12/10/21 15:20*	*12/11/21 03:06*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**135**		4.97		mg/Kg			12/14/21 18:20	1

Client Sample ID: FS21 Lab Sample ID: 890-1689-9

Date Collected: 12/07/21 15:10 **Matrix: Solid**
Date Received: 12/08/21 11:32
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 20:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 20:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 20:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/09/21 07:30	12/09/21 20:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 20:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/09/21 07:30	12/09/21 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*177*	*S1+*	*70 - 130*	*12/09/21 07:30*	*12/09/21 20:24*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*12/09/21 07:30*	*12/09/21 20:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 03:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 03:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/11/21 03:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*12/10/21 15:20*	*12/11/21 03:28*	*1*
o-Terphenyl	*87*		*70 - 130*	*12/10/21 15:20*	*12/11/21 03:28*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS21

Lab Sample ID: 890-1689-9
Matrix: Solid
Date Collected: 12/07/21 15:10
Date Received: 12/08/21 11:32
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	327		5.04		mg/Kg			12/14/21 18:53	1

Client Sample ID: SW11

Lab Sample ID: 890-1689-10
Matrix: Solid
Date Collected: 12/07/21 08:52
Date Received: 12/08/21 11:32
Sample Depth: 0 - 7

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/09/21 07:30	12/09/21 20:51	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/09/21 07:30	12/09/21 20:51	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/09/21 07:30	12/09/21 20:51	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/09/21 07:30	12/09/21 20:51	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/09/21 07:30	12/09/21 20:51	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/09/21 07:30	12/09/21 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*12/09/21 07:30*	*12/09/21 20:51*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*12/09/21 07:30*	*12/09/21 20:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 03:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 03:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/11/21 03:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*12/10/21 15:20*	*12/11/21 03:49*	*1*
o-Terphenyl	*97*		*70 - 130*	*12/10/21 15:20*	*12/11/21 03:49*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	55.0		4.99		mg/Kg			12/14/21 19:04	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: SW12

Date Collected: 12/07/21 08:52
Date Received: 12/08/21 11:32
Sample Depth: 0 - 7

Lab Sample ID: 890-1689-11
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		12/09/21 10:37	12/10/21 05:12	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/09/21 10:37	12/10/21 05:12	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/09/21 10:37	12/10/21 05:12	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/09/21 10:37	12/10/21 05:12	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/09/21 10:37	12/10/21 05:12	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 10:37	12/10/21 05:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*12/09/21 10:37*	*12/10/21 05:12*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*12/09/21 10:37*	*12/10/21 05:12*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/10/21 08:36	12/10/21 19:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/10/21 08:36	12/10/21 19:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/10/21 08:36	12/10/21 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*12/10/21 08:36*	*12/10/21 19:43*	*1*
o-Terphenyl	*98*		*70 - 130*	*12/10/21 08:36*	*12/10/21 19:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**42.6**		4.95		mg/Kg			12/14/21 19:37	1

Client Sample ID: SW13

Date Collected: 12/07/21 13:55
Date Received: 12/08/21 11:32
Sample Depth: 0 - 4

Lab Sample ID: 890-1689-12
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		12/09/21 10:37	12/10/21 05:32	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/09/21 10:37	12/10/21 05:32	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/09/21 10:37	12/10/21 05:32	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/09/21 10:37	12/10/21 05:32	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/09/21 10:37	12/10/21 05:32	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/09/21 10:37	12/10/21 05:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*12/09/21 10:37*	*12/10/21 05:32*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

Client Sample ID: SW13 Lab Sample ID: 890-1689-12

Date Collected: 12/07/21 13:55 **Matrix: Solid**
Date Received: 12/08/21 11:32
Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*12/09/21 10:37*	*12/10/21 05:32*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/10/21 08:36	12/10/21 20:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/10/21 08:36	12/10/21 20:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/10/21 08:36	12/10/21 20:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*88*		*70 - 130*	*12/10/21 08:36*	*12/10/21 20:04*	*1*
o-Terphenyl	*96*		*70 - 130*	*12/10/21 08:36*	*12/10/21 20:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**197**		4.99	mg/Kg			12/14/21 19:48	1

Client Sample ID: SW14 Lab Sample ID: 890-1689-13

Date Collected: 12/07/21 05:12 **Matrix: Solid**
Date Received: 12/08/21 11:32
Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		12/09/21 10:37	12/10/21 05:53	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/09/21 10:37	12/10/21 05:53	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/09/21 10:37	12/10/21 05:53	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		12/09/21 10:37	12/10/21 05:53	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/09/21 10:37	12/10/21 05:53	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		12/09/21 10:37	12/10/21 05:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*12/09/21 10:37*	*12/10/21 05:53*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*12/09/21 10:37*	*12/10/21 05:53*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/13/21 12:32	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: SW14

Date Collected: 12/07/21 05:12
Date Received: 12/08/21 11:32
Sample Depth: 0 - 4

Lab Sample ID: 890-1689-13

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/10/21 08:36	12/10/21 20:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/10/21 08:36	12/10/21 20:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/10/21 08:36	12/10/21 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*12/10/21 08:36*	*12/10/21 20:25*	*1*
o-Terphenyl	*95*		*70 - 130*	*12/10/21 08:36*	*12/10/21 20:25*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**49.8**		5.00		mg/Kg			12/14/21 19:59	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)										
880-9100-A-41-C MS	Matrix Spike	124	101										
880-9100-A-41-D MSD	Matrix Spike Duplicate	109	101										
890-1689-1	FS13	124	92										
890-1689-1 MS	FS13	123	135 S1+										
890-1689-1 MSD	FS13	126	130										
890-1689-2	FS14	148 S1+	116										
890-1689-3	FS15	142 S1+	78										
890-1689-4	FS16	124	110										
890-1689-5	FS17	178 S1+	129										
890-1689-6	FS18	153 S1+	129										
890-1689-7	FS19	141 S1+	123										
890-1689-8	FS20	112	88										
890-1689-9	FS21	177 S1+	116										
890-1689-10	SW11	113	115										
890-1689-11	SW12	129	115										
890-1689-12	SW13	114	86										
890-1689-13	SW14	110	84										
LCS 880-14280/1-A	Lab Control Sample	106	98										
LCS 880-14298/1-A	Lab Control Sample	117	130										
LCSD 880-14280/2-A	Lab Control Sample Dup	109	94										
LCSD 880-14298/2-A	Lab Control Sample Dup	116	115										
MB 880-14280/5-A	Method Blank	105	80										
MB 880-14294/5-A	Method Blank	125	124										
MB 880-14298/5-A	Method Blank	76	117										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)										
880-9168-A-1-C MS	Matrix Spike	90	83										
880-9168-A-1-D MSD	Matrix Spike Duplicate	92	70										
890-1686-A-1-G MS	Matrix Spike	93	91										
890-1686-A-1-H MSD	Matrix Spike Duplicate	89	92										
890-1689-1	FS13	93	101										
890-1689-2	FS14	94	103										
890-1689-3	FS15	86	94										
890-1689-4	FS16	92	100										
890-1689-5	FS17	91	99										
890-1689-6	FS18	97	104										
890-1689-7	FS19	86	93										
890-1689-8	FS20	92	101										
890-1689-9	FS21	84	87										
890-1689-10	SW11	92	97										
890-1689-11	SW12	93	98										

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
890-1689-12	SW13	88	96								
890-1689-13	SW14	89	95								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO2	OTPH2								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
LCS 880-14448/2-A	Lab Control Sample	106	111								
LCS 880-14526/2-A	Lab Control Sample	98	109								
LCSD 880-14448/3-A	Lab Control Sample Dup	117	121								
LCSD 880-14526/3-A	Lab Control Sample Dup	115	112								
MB 880-14448/1-A	Method Blank	104	109								
MB 880-14526/1-A	Method Blank	104	117								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14280/5-A
Matrix: Solid
Analysis Batch: 14330

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14280

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:37	12/09/21 22:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:37	12/09/21 22:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:37	12/09/21 22:42	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/08/21 10:37	12/09/21 22:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/08/21 10:37	12/09/21 22:42	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/08/21 10:37	12/09/21 22:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*12/08/21 10:37*	*12/09/21 22:42*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*12/08/21 10:37*	*12/09/21 22:42*	*1*

Lab Sample ID: LCS 880-14280/1-A
Matrix: Solid
Analysis Batch: 14330

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14280

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09526		mg/Kg		95	70 - 130		
Toluene			0.100	0.09237		mg/Kg		92	70 - 130		
Ethylbenzene			0.100	0.08805		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1858		mg/Kg		93	70 - 130		
o-Xylene			0.100	0.09136		mg/Kg		91	70 - 130		

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

Lab Sample ID: LCSD 880-14280/2-A
Matrix: Solid
Analysis Batch: 14330

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14280

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.09510		mg/Kg		95	70 - 130	0	35
Toluene			0.100	0.09131		mg/Kg		91	70 - 130	1	35
Ethylbenzene			0.100	0.08775		mg/Kg		88	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.1875		mg/Kg		94	70 - 130	1	35
o-Xylene			0.100	0.08973		mg/Kg		90	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 880-9100-A-41-C MS
Matrix: Solid
Analysis Batch: 14330

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.101	0.07732		mg/Kg		77	70 - 130		
Toluene	<0.00199	U F1	0.101	0.07365		mg/Kg		72	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

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

Lab Sample ID: 880-9100-A-41-C MS
Matrix: Solid
Analysis Batch: 14330

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U F1	0.101	0.07009	F1	mg/Kg		69	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1468		mg/Kg		73	70 - 130
o-Xylene	<0.00199	U F1	0.101	0.06825	F1	mg/Kg		67	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-9100-A-41-D MSD
Matrix: Solid
Analysis Batch: 14330

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.07366		mg/Kg		73	70 - 130	5	35
Toluene	<0.00199	U F1	0.101	0.06732	F1	mg/Kg		66	70 - 130	9	35
Ethylbenzene	<0.00199	U F1	0.101	0.06493	F1	mg/Kg		64	70 - 130	8	35
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1374	F1	mg/Kg		68	70 - 130	7	35
o-Xylene	<0.00199	U F1	0.101	0.06629	F1	mg/Kg		65	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: MB 880-14294/5-A
Matrix: Solid
Analysis Batch: 14330

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14294

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 10:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 10:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 10:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/09/21 07:30	12/09/21 10:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 10:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/09/21 07:30	12/09/21 10:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*	*12/09/21 07:30*	*12/09/21 10:56*	*1*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*	*12/09/21 07:30*	*12/09/21 10:56*	*1*

Lab Sample ID: MB 880-14298/5-A
Matrix: Solid
Analysis Batch: 14375

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14298

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 16:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 16:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/09/21 07:30	12/09/21 16:25	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/09/21 07:30	12/09/21 16:25	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

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

Lab Sample ID: MB 880-14298/5-A
Matrix: Solid
Analysis Batch: 14375

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14298

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/09/21 07:30	12/09/21 16:25	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/09/21 07:30	12/09/21 16:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*12/09/21 07:30*	*12/09/21 16:25*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*12/09/21 07:30*	*12/09/21 16:25*	*1*

Lab Sample ID: LCS 880-14298/1-A
Matrix: Solid
Analysis Batch: 14375

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14298

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.1020		mg/Kg		102	70 - 130		
Toluene			0.100	0.1006		mg/Kg		101	70 - 130		
Ethylbenzene			0.100	0.1014		mg/Kg		101	70 - 130		
m-Xylene & p-Xylene			0.200	0.2233		mg/Kg		112	70 - 130		
o-Xylene			0.100	0.1043		mg/Kg		104	70 - 130		

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

Lab Sample ID: LCSD 880-14298/2-A
Matrix: Solid
Analysis Batch: 14375

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14298

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1035		mg/Kg		104	70 - 130	1	35
Toluene			0.100	0.1007		mg/Kg		101	70 - 130	0	35
Ethylbenzene			0.100	0.1024		mg/Kg		102	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2248		mg/Kg		112	70 - 130	1	35
o-Xylene			0.100	0.1055		mg/Kg		105	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: 890-1689-1 MS
Matrix: Solid
Analysis Batch: 14375

Client Sample ID: FS13
Prep Type: Total/NA
Prep Batch: 14298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.0990	0.1188		mg/Kg		120	70 - 130		
Toluene	<0.00199	U	0.0990	0.1014		mg/Kg		102	70 - 130		
Ethylbenzene	<0.00199	U	0.0990	0.1024		mg/Kg		103	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2230		mg/Kg		113	70 - 130		
o-Xylene	<0.00199	U	0.0990	0.1027		mg/Kg		104	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

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

Lab Sample ID: 890-1689-1 MS
Matrix: Solid
Analysis Batch: 14375

Client Sample ID: FS13
Prep Type: Total/NA
Prep Batch: 14298

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*
1,4-Difluorobenzene (Surr)	*135*	*S1+*	*70 - 130*

Lab Sample ID: 890-1689-1 MSD
Matrix: Solid
Analysis Batch: 14375

Client Sample ID: FS13
Prep Type: Total/NA
Prep Batch: 14298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0992	0.1195		mg/Kg		120	70 - 130	1	35
Toluene	<0.00199	U	0.0992	0.1033		mg/Kg		104	70 - 130	2	35
Ethylbenzene	<0.00199	U	0.0992	0.1035		mg/Kg		104	70 - 130	1	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.2269		mg/Kg		114	70 - 130	2	35
o-Xylene	<0.00199	U	0.0992	0.1042		mg/Kg		105	70 - 130	2	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*130*		*70 - 130*

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

Lab Sample ID: MB 880-14448/1-A
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14448

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/10/21 08:36	12/10/21 10:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/10/21 08:36	12/10/21 10:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/10/21 08:36	12/10/21 10:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*104*		*70 - 130*	*12/10/21 08:36*	*12/10/21 10:53*	*1*
o-Terphenyl	*109*		*70 - 130*	*12/10/21 08:36*	*12/10/21 10:53*	*1*

Lab Sample ID: LCS 880-14448/2-A
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14448

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	938.5		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1010		mg/Kg		101	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*106*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

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

Lab Sample ID: LCSD 880-14448/3-A
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14448

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	877.6		mg/Kg		88	70 - 130	7	20
Diesel Range Organics (Over C10-C28)			1000	997.9		mg/Kg		100	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*121*		*70 - 130*

Lab Sample ID: 890-1686-A-1-G MS
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14448

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1169		mg/Kg		116	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1285		mg/Kg		129	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*91*		*70 - 130*

Lab Sample ID: 890-1686-A-1-H MSD
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14448

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1182		mg/Kg		117	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1291		mg/Kg		129	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: MB 880-14526/1-A
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14526

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/10/21 21:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/10/21 21:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/10/21 15:20	12/10/21 21:07	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

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

Lab Sample ID: MB 880-14526/1-A
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14526

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	12/10/21 15:20	12/10/21 21:07	1
o-Terphenyl	117		70 - 130	12/10/21 15:20	12/10/21 21:07	1

Lab Sample ID: LCS 880-14526/2-A
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14526

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	839.8		mg/Kg		84	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	971.0		mg/Kg		97	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: LCSD 880-14526/3-A
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14526

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	888.4		mg/Kg		89	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	949.8		mg/Kg		95	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 880-9168-A-1-C MS
Matrix: Solid
Analysis Batch: 14439

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1194		mg/Kg		120	70 - 130		
Diesel Range Organics (Over C10-C28)	271	F1	997	1617	F1	mg/Kg		135	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	83		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

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

Lab Sample ID: 880-9168-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14439 — **Prep Batch: 14526**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1251		mg/Kg		125	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	271	F1	999	1499		mg/Kg		123	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*70*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14498/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 14772

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/14/21 08:56	1

Lab Sample ID: LCS 880-14498/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 14772

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	250.7		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-14498/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 14772

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	254.6		mg/Kg		102	90 - 110	2	20

Lab Sample ID: 880-9170-A-3-D MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 14772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	<4.95	U F1	248	271.7		mg/Kg		110	90 - 110		

Lab Sample ID: 880-9170-A-3-E MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 14772

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.95	U F1	248	273.6	F1	mg/Kg		111	90 - 110	1	20

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 880-14499/1-A
Matrix: Solid
Analysis Batch: 14775

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/14/21 15:15	1

Lab Sample ID: LCS 880-14499/2-A
Matrix: Solid
Analysis Batch: 14775

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	268.0		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-14499/3-A
Matrix: Solid
Analysis Batch: 14775

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	271.0		mg/Kg		108	90 - 110	1	20

Lab Sample ID: 890-1689-8 MS
Matrix: Solid
Analysis Batch: 14775

Client Sample ID: FS20
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	135		249	404.7		mg/Kg		109	90 - 110		

Lab Sample ID: 890-1689-8 MSD
Matrix: Solid
Analysis Batch: 14775

Client Sample ID: FS20
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	135		249	400.3		mg/Kg		107	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

GC VOA

Prep Batch: 14280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-11	SW12	Total/NA	Solid	5035	
890-1689-12	SW13	Total/NA	Solid	5035	
890-1689-13	SW14	Total/NA	Solid	5035	
MB 880-14280/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14280/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14280/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9100-A-41-C MS	Matrix Spike	Total/NA	Solid	5035	
880-9100-A-41-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 14294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-14294/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 14298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Total/NA	Solid	5035	
890-1689-2	FS14	Total/NA	Solid	5035	
890-1689-3	FS15	Total/NA	Solid	5035	
890-1689-4	FS16	Total/NA	Solid	5035	
890-1689-5	FS17	Total/NA	Solid	5035	
890-1689-6	FS18	Total/NA	Solid	5035	
890-1689-7	FS19	Total/NA	Solid	5035	
890-1689-8	FS20	Total/NA	Solid	5035	
890-1689-9	FS21	Total/NA	Solid	5035	
890-1689-10	SW11	Total/NA	Solid	5035	
MB 880-14298/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14298/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14298/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1689-1 MS	FS13	Total/NA	Solid	5035	
890-1689-1 MSD	FS13	Total/NA	Solid	5035	

Analysis Batch: 14330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-11	SW12	Total/NA	Solid	8021B	14280
890-1689-12	SW13	Total/NA	Solid	8021B	14280
890-1689-13	SW14	Total/NA	Solid	8021B	14280
MB 880-14280/5-A	Method Blank	Total/NA	Solid	8021B	14280
MB 880-14294/5-A	Method Blank	Total/NA	Solid	8021B	14294
LCS 880-14280/1-A	Lab Control Sample	Total/NA	Solid	8021B	14280
LCSD 880-14280/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14280
880-9100-A-41-C MS	Matrix Spike	Total/NA	Solid	8021B	14280
880-9100-A-41-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14280

Analysis Batch: 14375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Total/NA	Solid	8021B	14298
890-1689-2	FS14	Total/NA	Solid	8021B	14298
890-1689-3	FS15	Total/NA	Solid	8021B	14298
890-1689-4	FS16	Total/NA	Solid	8021B	14298
890-1689-5	FS17	Total/NA	Solid	8021B	14298
890-1689-6	FS18	Total/NA	Solid	8021B	14298

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

GC VOA (Continued)

Analysis Batch: 14375 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-7	FS19	Total/NA	Solid	8021B	14298
890-1689-8	FS20	Total/NA	Solid	8021B	14298
890-1689-9	FS21	Total/NA	Solid	8021B	14298
890-1689-10	SW11	Total/NA	Solid	8021B	14298
MB 880-14298/5-A	Method Blank	Total/NA	Solid	8021B	14298
LCS 880-14298/1-A	Lab Control Sample	Total/NA	Solid	8021B	14298
LCSD 880-14298/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14298
890-1689-1 MS	FS13	Total/NA	Solid	8021B	14298
890-1689-1 MSD	FS13	Total/NA	Solid	8021B	14298

Analysis Batch: 14648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-4	FS16	Total/NA	Solid	Total BTEX	
890-1689-5	FS17	Total/NA	Solid	Total BTEX	
890-1689-6	FS18	Total/NA	Solid	Total BTEX	
890-1689-7	FS19	Total/NA	Solid	Total BTEX	
890-1689-8	FS20	Total/NA	Solid	Total BTEX	
890-1689-9	FS21	Total/NA	Solid	Total BTEX	
890-1689-10	SW11	Total/NA	Solid	Total BTEX	
890-1689-11	SW12	Total/NA	Solid	Total BTEX	
890-1689-12	SW13	Total/NA	Solid	Total BTEX	
890-1689-13	SW14	Total/NA	Solid	Total BTEX	

Analysis Batch: 14761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Total/NA	Solid	Total BTEX	
890-1689-2	FS14	Total/NA	Solid	Total BTEX	
890-1689-3	FS15	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 14439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Total/NA	Solid	8015B NM	14526
890-1689-2	FS14	Total/NA	Solid	8015B NM	14526
890-1689-3	FS15	Total/NA	Solid	8015B NM	14526
890-1689-4	FS16	Total/NA	Solid	8015B NM	14526
890-1689-5	FS17	Total/NA	Solid	8015B NM	14526
890-1689-6	FS18	Total/NA	Solid	8015B NM	14526
890-1689-7	FS19	Total/NA	Solid	8015B NM	14526
890-1689-8	FS20	Total/NA	Solid	8015B NM	14526
890-1689-9	FS21	Total/NA	Solid	8015B NM	14526
890-1689-10	SW11	Total/NA	Solid	8015B NM	14526
890-1689-11	SW12	Total/NA	Solid	8015B NM	14448
890-1689-12	SW13	Total/NA	Solid	8015B NM	14448
890-1689-13	SW14	Total/NA	Solid	8015B NM	14448
MB 880-14448/1-A	Method Blank	Total/NA	Solid	8015B NM	14448
MB 880-14526/1-A	Method Blank	Total/NA	Solid	8015B NM	14526
LCS 880-14448/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14448
LCS 880-14526/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14526
LCSD 880-14448/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14448

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

GC Semi VOA (Continued)

Analysis Batch: 14439 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-14526/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14526
880-9168-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	14526
880-9168-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14526
890-1686-A-1-G MS	Matrix Spike	Total/NA	Solid	8015B NM	14448
890-1686-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14448

Prep Batch: 14448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-11	SW12	Total/NA	Solid	8015NM Prep	
890-1689-12	SW13	Total/NA	Solid	8015NM Prep	
890-1689-13	SW14	Total/NA	Solid	8015NM Prep	
MB 880-14448/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14448/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14448/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1686-A-1-G MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1686-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 14526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Total/NA	Solid	8015NM Prep	
890-1689-2	FS14	Total/NA	Solid	8015NM Prep	
890-1689-3	FS15	Total/NA	Solid	8015NM Prep	
890-1689-4	FS16	Total/NA	Solid	8015NM Prep	
890-1689-5	FS17	Total/NA	Solid	8015NM Prep	
890-1689-6	FS18	Total/NA	Solid	8015NM Prep	
890-1689-7	FS19	Total/NA	Solid	8015NM Prep	
890-1689-8	FS20	Total/NA	Solid	8015NM Prep	
890-1689-9	FS21	Total/NA	Solid	8015NM Prep	
890-1689-10	SW11	Total/NA	Solid	8015NM Prep	
MB 880-14526/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14526/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14526/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-9168-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-9168-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Total/NA	Solid	8015 NM	
890-1689-2	FS14	Total/NA	Solid	8015 NM	
890-1689-3	FS15	Total/NA	Solid	8015 NM	
890-1689-4	FS16	Total/NA	Solid	8015 NM	
890-1689-5	FS17	Total/NA	Solid	8015 NM	
890-1689-6	FS18	Total/NA	Solid	8015 NM	
890-1689-7	FS19	Total/NA	Solid	8015 NM	
890-1689-8	FS20	Total/NA	Solid	8015 NM	
890-1689-9	FS21	Total/NA	Solid	8015 NM	
890-1689-10	SW11	Total/NA	Solid	8015 NM	
890-1689-11	SW12	Total/NA	Solid	8015 NM	
890-1689-12	SW13	Total/NA	Solid	8015 NM	
890-1689-13	SW14	Total/NA	Solid	8015 NM	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

HPLC/IC

Leach Batch: 14498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Soluble	Solid	DI Leach	
890-1689-2	FS14	Soluble	Solid	DI Leach	
890-1689-3	FS15	Soluble	Solid	DI Leach	
890-1689-4	FS16	Soluble	Solid	DI Leach	
890-1689-5	FS17	Soluble	Solid	DI Leach	
890-1689-6	FS18	Soluble	Solid	DI Leach	
MB 880-14498/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14498/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14498/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9170-A-3-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-9170-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 14499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-7	FS19	Soluble	Solid	DI Leach	
890-1689-8	FS20	Soluble	Solid	DI Leach	
890-1689-9	FS21	Soluble	Solid	DI Leach	
890-1689-10	SW11	Soluble	Solid	DI Leach	
890-1689-11	SW12	Soluble	Solid	DI Leach	
890-1689-12	SW13	Soluble	Solid	DI Leach	
890-1689-13	SW14	Soluble	Solid	DI Leach	
MB 880-14499/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14499/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14499/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1689-8 MS	FS20	Soluble	Solid	DI Leach	
890-1689-8 MSD	FS20	Soluble	Solid	DI Leach	

Analysis Batch: 14772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-1	FS13	Soluble	Solid	300.0	14498
890-1689-2	FS14	Soluble	Solid	300.0	14498
890-1689-3	FS15	Soluble	Solid	300.0	14498
890-1689-4	FS16	Soluble	Solid	300.0	14498
890-1689-5	FS17	Soluble	Solid	300.0	14498
890-1689-6	FS18	Soluble	Solid	300.0	14498
MB 880-14498/1-A	Method Blank	Soluble	Solid	300.0	14498
LCS 880-14498/2-A	Lab Control Sample	Soluble	Solid	300.0	14498
LCSD 880-14498/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14498
880-9170-A-3-D MS	Matrix Spike	Soluble	Solid	300.0	14498
880-9170-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	14498

Analysis Batch: 14775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1689-7	FS19	Soluble	Solid	300.0	14499
890-1689-8	FS20	Soluble	Solid	300.0	14499
890-1689-9	FS21	Soluble	Solid	300.0	14499
890-1689-10	SW11	Soluble	Solid	300.0	14499
890-1689-11	SW12	Soluble	Solid	300.0	14499
890-1689-12	SW13	Soluble	Solid	300.0	14499
890-1689-13	SW14	Soluble	Solid	300.0	14499
MB 880-14499/1-A	Method Blank	Soluble	Solid	300.0	14499

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

HPLC/IC (Continued)

Analysis Batch: 14775 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-14499/2-A	Lab Control Sample	Soluble	Solid	300.0	14499
LCSD 880-14499/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14499
890-1689-8 MS	FS20	Soluble	Solid	300.0	14499
890-1689-8 MSD	FS20	Soluble	Solid	300.0	14499

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS13

Date Collected: 12/07/21 08:47
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 16:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14761	12/14/21 10:16	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 00:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 11:36	CH	XEN MID

Client Sample ID: FS14

Date Collected: 12/07/21 08:49
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 17:19	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14761	12/14/21 10:16	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 00:35	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 11:43	CH	XEN MID

Client Sample ID: FS15

Date Collected: 12/07/21 08:50
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 17:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14761	12/14/21 10:16	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 00:56	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 11:50	CH	XEN MID

Client Sample ID: FS16

Date Collected: 12/07/21 10:21
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 18:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: FS16
Date Collected: 12/07/21 10:21
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 01:18	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 11:56	CH	XEN MID

Client Sample ID: FS17
Date Collected: 12/07/21 10:23
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 18:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 01:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 12:03	CH	XEN MID

Client Sample ID: FS18
Date Collected: 12/07/21 11:08
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 19:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 02:01	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 12:10	CH	XEN MID

Client Sample ID: FS19
Date Collected: 12/07/21 11:11
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 19:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 02:44	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

Client Sample ID: FS19 Lab Sample ID: 890-1689-7

Date Collected: 12/07/21 11:11 **Matrix: Solid**
Date Received: 12/08/21 11:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.02 g	50 mL	14499	12/10/21 12:24	CH	XEN MID
Soluble	Analysis	300.0		1			14775	12/14/21 18:09	CH	XEN MID

Client Sample ID: FS20 Lab Sample ID: 890-1689-8

Date Collected: 12/07/21 13:31 **Matrix: Solid**
Date Received: 12/08/21 11:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 19:58	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 03:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	14499	12/10/21 12:24	CH	XEN MID
Soluble	Analysis	300.0		1			14775	12/14/21 18:20	CH	XEN MID

Client Sample ID: FS21 Lab Sample ID: 890-1689-9

Date Collected: 12/07/21 15:10 **Matrix: Solid**
Date Received: 12/08/21 11:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 20:24	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 03:28	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	14499	12/10/21 12:24	CH	XEN MID
Soluble	Analysis	300.0		1			14775	12/14/21 18:53	CH	XEN MID

Client Sample ID: SW11 Lab Sample ID: 890-1689-10

Date Collected: 12/07/21 08:52 **Matrix: Solid**
Date Received: 12/08/21 11:32

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	14298	12/09/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14375	12/09/21 20:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 03:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14499	12/10/21 12:24	CH	XEN MID
Soluble	Analysis	300.0		1			14775	12/14/21 19:04	CH	XEN MID

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Client Sample ID: SW12

Date Collected: 12/07/21 08:52
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	14280	12/09/21 10:37	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14330	12/10/21 05:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14448	12/10/21 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/10/21 19:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14499	12/10/21 12:24	CH	XEN MID
Soluble	Analysis	300.0		1			14775	12/14/21 19:37	CH	XEN MID

Client Sample ID: SW13

Date Collected: 12/07/21 13:55
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	14280	12/09/21 10:37	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14330	12/10/21 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14448	12/10/21 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/10/21 20:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14499	12/10/21 12:24	CH	XEN MID
Soluble	Analysis	300.0		1			14775	12/14/21 19:48	CH	XEN MID

Client Sample ID: SW14

Date Collected: 12/07/21 05:12
Date Received: 12/08/21 11:32

Lab Sample ID: 890-1689-13
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	14280	12/09/21 10:37	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14330	12/10/21 05:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14448	12/10/21 08:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/10/21 20:25	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	14499	12/10/21 12:24	CH	XEN MID
Soluble	Analysis	300.0		1			14775	12/14/21 19:59	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1689-1
Project/Site: State QG Com 002H SDG: 31402909.0404 Task 02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1689-1
SDG: 31402909.0404 Task 02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1689-1	FS13	Solid	12/07/21 08:47	12/08/21 11:32	7
890-1689-2	FS14	Solid	12/07/21 08:49	12/08/21 11:32	7
890-1689-3	FS15	Solid	12/07/21 08:50	12/08/21 11:32	7
890-1689-4	FS16	Solid	12/07/21 10:21	12/08/21 11:32	2
890-1689-5	FS17	Solid	12/07/21 10:23	12/08/21 11:32	2
890-1689-6	FS18	Solid	12/07/21 11:08	12/08/21 11:32	2
890-1689-7	FS19	Solid	12/07/21 11:11	12/08/21 11:32	2
890-1689-8	FS20	Solid	12/07/21 13:31	12/08/21 11:32	4
890-1689-9	FS21	Solid	12/07/21 15:10	12/08/21 11:32	4
890-1689-10	SW11	Solid	12/07/21 08:52	12/08/21 11:32	0 - 7
890-1689-11	SW12	Solid	12/07/21 08:52	12/08/21 11:32	0 - 7
890-1689-12	SW13	Solid	12/07/21 13:55	12/08/21 11:32	0 - 4
890-1689-13	SW14	Solid	12/07/21 05:12	12/08/21 11:32	0 - 4

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
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12/16/2021

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

Work Order Comments

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

Project Name:	State QG Com 002H	Turn Around	
Project Number:	31402909.040 Task 02	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	2.6 / 2.4	Thermometer ID		
Received Intact:	(Yes) No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.7	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

890-1689 Chain of Custody

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS13	S	12/07/21	8:47	7'	1	X	X	X	Composite
FS14	S	12/07/21	8:49	7'	1	X	X	X	Composite
FS15	S	12/07/21	8:50	7'	1	X	X	X	Composite
~~FS16~~	~~S~~	~~12/07/21~~	~~10:21~~	~~2'~~	~~1~~	~~X~~	~~X~~	~~X~~	Composite
FS17	S	12/07/21	10:23	2'	1	X	X	X	Composite
FS18	S	12/07/21	11:08	2'	1	X	X	X	Composite
FS19	S	12/07/21	11:11	2'	1	X	X	X	Composite
FS20	S	12/07/21	13:31	4'	1	X	X	X	Composite
FS21	S	12/07/21	15:10	4'	1	X	X	X	Composite
SW11	S	12/07/21	8:52	0-7'	1	X	X	X	Composite

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner	N. Allen	12/8/21 11:30	2		
3			4		
5			6		

Revised Date 051418 Rev 2018 1

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

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12/16/2021

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

Work Order Comments

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

Project Name:	State QG Com 002H	Turn Around	
Project Number:	31402909.040 Task 02	Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	2.6 / 2.4	Thermometer ID	T-NM-007	
Received Intact:	Yes No			
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

ANALYSIS REQUEST

Work Order Notes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SW12	S	12/07/21	8:52	0-7'	1	X	X	X	Composite
SW13	S	12/07/21	13:55	0-4'	1	X	X	X	Composite
SW14	S	12/07/21	`5:12	0-4'	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 Tl Sn U V Zn

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	P Benner	N. Otero	12/8/21 11:37	2		
3				4		
5				6		

Revised Date 051418 Rev. 2018.1

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-537 1
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1689-1
Address: 1211 W Florida Ave,	Due Date Requested: 12/14/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: State QG Com 002h	Project #: 89000048			
Site	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note.
			Preservation Code:										
FS13 (890-1689-1)	12/7/21	08 47 Mountain		Solid			X	X	X	X	X	1	
FS14 (890-1689-2)	12/7/21	08 49 Mountain		Solid			X	X	X	X	X	1	
FS15 (890-1689-3)	12/7/21	08 50 Mountain		Solid			X	X	X	X	X	1	
FS16 (890-1689-4)	12/7/21	10 21 Mountain		Solid			X	X	X	X	X	1	
FS17 (890-1689-5)	12/7/21	10 23 Mountain		Solid			X	X	X	X	X	1	
FS18 (890-1689-6)	12/7/21	11 08 Mountain		Solid			X	X	X	X	X	1	
FS19 (890-1689-7)	12/7/21	11 11 Mountain		Solid			X	X	X	X	X	1	
FS20 (890-1689-8)	12/7/21	13 31 Mountain		Solid			X	X	X	X	X	1	
FS21 (890-1689-9)	12/7/21	15 10 Mountain		Solid			X	X	X	X	X	1	

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

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

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:

Relinquished by: Cloe Cuda 12.8.21	Date/Time:	Company	Received by: Leticia R	Date/Time: 12/9/21 12:05	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 2.9/3.0 .10 IR8

Ver: 06/08/2021

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-537 2
Client Contact: Shipping/Receiving	Phone	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1689-1
Address: 1211 W Florida Ave	Due Date Requested: 12/14/2021			
City: Midland	TAT Requested (days):			
State Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: State QG Com 002h	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SW11 (890-1689-10)	12/7/21	08 52 Mountain		Solid			X	X	X	X	X	1	
SW12 (890-1689-11)	12/7/21	08 52 Mountain		Solid			X	X	X	X	X	1	
SW13 (890-1689-12)	12/7/21	13 55 Mountain		Solid			X	X	X	X	X	1	
SW14 (890-1689-13)	12/7/21	05 12 Mountain		Solid			X	X	X	X	X	1	

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

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

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by: Cloup 12.8.21	Date/Time	Company	Received by: Patricia R	Date/Time: 12/9/21 12.05	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 2.9/3.0 10 IR8

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1689-1
SDG Number: 31402909.0404 Task 02

Login Number: 1689
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1689-1
SDG Number: 31402909.0404 Task 02

Login Number: 1689
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland
List Creation: 12/09/21 12:10 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1697-1
Laboratory Sample Delivery Group: 31402909.040 Task 02
Client Project/Site: State QG Com 002H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/14/2021 9:07:20 AM

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

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

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

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Laboratory Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1697-1
Project/Site: State QG Com 002H SDG: 31402909.040 Task 02

Qualifiers

GC VOA

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

GC Semi VOA

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1697-1
Project/Site: State QG Com 002H SDG: 31402909.040 Task 02

Job ID: 890-1697-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1697-1

Receipt
The samples were received on 12/10/2021 11:21 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: FS22 (890-1697-1), SS01 (890-1697-3) and (MB 880-14447/5-B). Evidence of matrix interferences is not obvious.

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

GC Semi VOA
Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-14599 and analytical batch 880-14594 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
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-14608 and 880-14608 and analytical batch 880-14657 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Client Sample ID: FS22

Lab Sample ID: 890-1697-1
Matrix: Solid
Date Collected: 12/09/21 08:17
Date Received: 12/10/21 11:21
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 13:59	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 13:59	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 13:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/13/21 07:30	12/13/21 13:59	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 13:59	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/13/21 07:30	12/13/21 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*12/13/21 07:30*	*12/13/21 13:59*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*12/13/21 07:30*	*12/13/21 13:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/13/21 08:26	12/13/21 14:34	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/13/21 08:26	12/13/21 14:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/13/21 08:26	12/13/21 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*12/13/21 08:26*	*12/13/21 14:34*	*1*
o-Terphenyl	*104*		*70 - 130*	*12/13/21 08:26*	*12/13/21 14:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**816**		25.2		mg/Kg			12/13/21 14:04	5

Client Sample ID: FS23

Lab Sample ID: 890-1697-2
Matrix: Solid
Date Collected: 12/09/21 08:20
Date Received: 12/10/21 11:21
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 15:21	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 15:21	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 15:21	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/13/21 07:30	12/13/21 15:21	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 15:21	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/13/21 07:30	12/13/21 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*12/13/21 07:30*	*12/13/21 15:21*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Client Sample ID: FS23

Lab Sample ID: 890-1697-2
Matrix: Solid
Date Collected: 12/09/21 08:20
Date Received: 12/10/21 11:21
Sample Depth: 4

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*12/13/21 07:30*	*12/13/21 15:21*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/13/21 08:26	12/13/21 15:16	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/13/21 08:26	12/13/21 15:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/13/21 08:26	12/13/21 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*12/13/21 08:26*	*12/13/21 15:16*	*1*
o-Terphenyl	*118*		*70 - 130*	*12/13/21 08:26*	*12/13/21 15:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**333**		4.99	mg/Kg			12/13/21 14:12	1

Client Sample ID: SS01

Lab Sample ID: 890-1697-3
Matrix: Solid
Date Collected: 12/09/21 13:25
Date Received: 12/10/21 11:21
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		12/13/21 07:30	12/13/21 15:42	1
Toluene	<0.00198	U	0.00198	mg/Kg		12/13/21 07:30	12/13/21 15:42	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		12/13/21 07:30	12/13/21 15:42	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		12/13/21 07:30	12/13/21 15:42	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		12/13/21 07:30	12/13/21 15:42	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		12/13/21 07:30	12/13/21 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*149*	*S1+*	*70 - 130*	*12/13/21 07:30*	*12/13/21 15:42*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*12/13/21 07:30*	*12/13/21 15:42*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397	mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/13/21 12:32	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1697-1
Project/Site: State QG Com 002H SDG: 31402909.040 Task 02

Client Sample ID: SS01 Lab Sample ID: 890-1697-3

Date Collected: 12/09/21 13:25 **Matrix: Solid**
Date Received: 12/10/21 11:21
Sample Depth: 0.25

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 15:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 15:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*12/13/21 08:26*	*12/13/21 15:37*	*1*
o-Terphenyl	*99*		*70 - 130*	*12/13/21 08:26*	*12/13/21 15:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**83.8**		4.98		mg/Kg			12/13/21 14:37	1

Client Sample ID: SS02 Lab Sample ID: 890-1697-4

Date Collected: 12/09/21 13:24 **Matrix: Solid**
Date Received: 12/10/21 11:21
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 16:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 16:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 16:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/13/21 07:30	12/13/21 16:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/13/21 07:30	12/13/21 16:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/13/21 07:30	12/13/21 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*12/13/21 07:30*	*12/13/21 16:02*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*12/13/21 07:30*	*12/13/21 16:02*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/13/21 08:26	12/13/21 15:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/13/21 08:26	12/13/21 15:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/13/21 08:26	12/13/21 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*75*		*70 - 130*	*12/13/21 08:26*	*12/13/21 15:58*	*1*
o-Terphenyl	*90*		*70 - 130*	*12/13/21 08:26*	*12/13/21 15:58*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Client Sample ID: SS02

Lab Sample ID: 890-1697-4
Matrix: Solid
Date Collected: 12/09/21 13:24
Date Received: 12/10/21 11:21
Sample Depth: 0.25

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.9		4.97		mg/Kg			12/13/21 14:46	1

Client Sample ID: SS03

Lab Sample ID: 890-1697-5
Matrix: Solid
Date Collected: 12/09/21 13:23
Date Received: 12/10/21 11:21
Sample Depth: 0.25

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/13/21 07:30	12/13/21 16:23	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/13/21 07:30	12/13/21 16:23	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/13/21 07:30	12/13/21 16:23	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/13/21 07:30	12/13/21 16:23	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/13/21 07:30	12/13/21 16:23	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/13/21 07:30	12/13/21 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*12/13/21 07:30*	*12/13/21 16:23*	*1*
1,4-Difluorobenzene (Surr)	*107*		*70 - 130*	*12/13/21 07:30*	*12/13/21 16:23*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/13/21 11:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 16:18	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 16:18	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*12/13/21 08:26*	*12/13/21 16:18*	*1*
o-Terphenyl	*88*		*70 - 130*	*12/13/21 08:26*	*12/13/21 16:18*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.2		4.95		mg/Kg			12/13/21 14:54	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-1695-A-1-A MS	Matrix Spike	104	96										
890-1695-A-1-B MSD	Matrix Spike Duplicate	101	98										
890-1697-1	FS22	134 S1+	111										
890-1697-2	FS23	129	118										
890-1697-3	SS01	149 S1+	96										
890-1697-4	SS02	112	81										
890-1697-5	SS03	115	107										
LCS 880-14447/1-A	Lab Control Sample	108	100										
LCSD 880-14447/2-A	Lab Control Sample Dup	105	101										
MB 880-14447/5-B	Method Blank	132 S1+	105										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-1695-A-1-F MS	Matrix Spike	84	83										
890-1695-A-1-G MSD	Matrix Spike Duplicate	88	88										
890-1697-1	FS22	91	104										
890-1697-2	FS23	102	118										
890-1697-3	SS01	85	99										
890-1697-4	SS02	75	90										
890-1697-5	SS03	72	88										
LCS 880-14599/2-A	Lab Control Sample	89	97										
LCSD 880-14599/3-A	Lab Control Sample Dup	118	118										
MB 880-14599/1-A	Method Blank	94	119										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14447/5-B
Matrix: Solid
Analysis Batch: 14589

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14447

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 10:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 10:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 10:34	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/13/21 07:30	12/13/21 10:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/13/21 07:30	12/13/21 10:34	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/13/21 07:30	12/13/21 10:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*12/13/21 07:30*	*12/13/21 10:34*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*12/13/21 07:30*	*12/13/21 10:34*	*1*

Lab Sample ID: LCS 880-14447/1-A
Matrix: Solid
Analysis Batch: 14589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14447

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.09495		mg/Kg		95	70 - 130		
Toluene			0.100	0.08907		mg/Kg		89	70 - 130		
Ethylbenzene			0.100	0.08816		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1830		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09232		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-14447/2-A
Matrix: Solid
Analysis Batch: 14589

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14447

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08985		mg/Kg		90	70 - 130	6	35
Toluene			0.100	0.08570		mg/Kg		86	70 - 130	4	35
Ethylbenzene			0.100	0.08480		mg/Kg		85	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1768		mg/Kg		88	70 - 130	3	35
o-Xylene			0.100	0.08732		mg/Kg		87	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 890-1695-A-1-B MSD
Matrix: Solid
Analysis Batch: 14589

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.08933		mg/Kg					
Toluene	<0.00200	U	0.0990	0.08357		mg/Kg					

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

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

Lab Sample ID: 890-1695-A-1-B MSD
Matrix: Solid
Analysis Batch: 14589

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14447

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.0990	0.08153		mg/Kg					
m-Xylene & p-Xylene	<0.00400	U	0.198	0.1734		mg/Kg					
o-Xylene	<0.00200	U	0.0990	0.08500		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-1695-A-1-A MS
Matrix: Solid
Analysis Batch: 14589

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

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

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

Lab Sample ID: MB 880-14599/1-A
Matrix: Solid
Analysis Batch: 14594

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14599

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 09:22	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 09:22	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/13/21 08:26	12/13/21 09:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*12/13/21 08:26*	*12/13/21 09:22*	*1*
o-Terphenyl	*119*		*70 - 130*	*12/13/21 08:26*	*12/13/21 09:22*	*1*

Lab Sample ID: LCS 880-14599/2-A
Matrix: Solid
Analysis Batch: 14594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14599

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	804.6		mg/Kg		80	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	856.7		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*89*		*70 - 130*
o-Terphenyl	*97*		*70 - 130*

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

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

Lab Sample ID: LCSD 880-14599/3-A
Matrix: Solid
Analysis Batch: 14594

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14599

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	951.7		mg/Kg		95	70 - 130	17	20
Diesel Range Organics (Over C10-C28)			1000	1000		mg/Kg		100	70 - 130	15	20

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

Lab Sample ID: 890-1695-A-1-F MS
Matrix: Solid
Analysis Batch: 14594

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14599

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1257		mg/Kg		124	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	1250		mg/Kg		125	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*83*		*70 - 130*

Lab Sample ID: 890-1695-A-1-G MSD
Matrix: Solid
Analysis Batch: 14594

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14599

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1307		mg/Kg		128	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	1343	F1	mg/Kg		134	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14608/1-A
Matrix: Solid
Analysis Batch: 14657

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/13/21 10:03	1

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-14608/2-A
Matrix: Solid
Analysis Batch: 14657

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	267.0		mg/Kg		107	90 - 110		

Lab Sample ID: LCSD 880-14608/3-A
Matrix: Solid
Analysis Batch: 14657

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	266.2		mg/Kg		106	90 - 110	0	20

Lab Sample ID: 880-9251-A-1-D MS
Matrix: Solid
Analysis Batch: 14657

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	5740		1250	6430	4	mg/Kg		55	90 - 110		

Lab Sample ID: 880-9251-A-1-E MSD
Matrix: Solid
Analysis Batch: 14657

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	5740		1250	6336	4	mg/Kg		47	90 - 110	1	20

Lab Sample ID: 890-1696-A-1-N MS
Matrix: Solid
Analysis Batch: 14657

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	37000	F1	12400	45540	F1	mg/Kg		69	90 - 110		

Lab Sample ID: 890-1696-A-1-O MSD
Matrix: Solid
Analysis Batch: 14657

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	37000	F1	12400	51130	F1	mg/Kg		114	90 - 110	12	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1697-1
Project/Site: State QG Com 002H SDG: 31402909.040 Task 02

GC VOA

Prep Batch: 14447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Total/NA	Solid	5035	
890-1697-2	FS23	Total/NA	Solid	5035	
890-1697-3	SS01	Total/NA	Solid	5035	
890-1697-4	SS02	Total/NA	Solid	5035	
890-1697-5	SS03	Total/NA	Solid	5035	
MB 880-14447/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-14447/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14447/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1695-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 14589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Total/NA	Solid	8021B	14447
890-1697-2	FS23	Total/NA	Solid	8021B	14447
890-1697-3	SS01	Total/NA	Solid	8021B	14447
890-1697-4	SS02	Total/NA	Solid	8021B	14447
890-1697-5	SS03	Total/NA	Solid	8021B	14447
MB 880-14447/5-B	Method Blank	Total/NA	Solid	8021B	14447
LCS 880-14447/1-A	Lab Control Sample	Total/NA	Solid	8021B	14447
LCSD 880-14447/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14447
890-1695-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	
890-1695-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14447

Analysis Batch: 14648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Total/NA	Solid	Total BTEX	
890-1697-2	FS23	Total/NA	Solid	Total BTEX	
890-1697-3	SS01	Total/NA	Solid	Total BTEX	
890-1697-4	SS02	Total/NA	Solid	Total BTEX	
890-1697-5	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 14594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Total/NA	Solid	8015B NM	14599
890-1697-2	FS23	Total/NA	Solid	8015B NM	14599
890-1697-3	SS01	Total/NA	Solid	8015B NM	14599
890-1697-4	SS02	Total/NA	Solid	8015B NM	14599
890-1697-5	SS03	Total/NA	Solid	8015B NM	14599
MB 880-14599/1-A	Method Blank	Total/NA	Solid	8015B NM	14599
LCS 880-14599/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14599
LCSD 880-14599/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14599
890-1695-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	14599
890-1695-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14599

Prep Batch: 14599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Total/NA	Solid	8015NM Prep	
890-1697-2	FS23	Total/NA	Solid	8015NM Prep	
890-1697-3	SS01	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1697-1
Project/Site: State QG Com 002H SDG: 31402909.040 Task 02

GC Semi VOA (Continued)

Prep Batch: 14599 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-4	SS02	Total/NA	Solid	8015NM Prep	
890-1697-5	SS03	Total/NA	Solid	8015NM Prep	
MB 880-14599/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14599/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14599/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1695-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1695-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Total/NA	Solid	8015 NM	
890-1697-2	FS23	Total/NA	Solid	8015 NM	
890-1697-3	SS01	Total/NA	Solid	8015 NM	
890-1697-4	SS02	Total/NA	Solid	8015 NM	
890-1697-5	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 14608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Soluble	Solid	DI Leach	
890-1697-2	FS23	Soluble	Solid	DI Leach	
890-1697-3	SS01	Soluble	Solid	DI Leach	
890-1697-4	SS02	Soluble	Solid	DI Leach	
890-1697-5	SS03	Soluble	Solid	DI Leach	
MB 880-14608/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14608/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14608/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9251-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-9251-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-1696-A-1-N MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1696-A-1-O MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 14657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1697-1	FS22	Soluble	Solid	300.0	14608
890-1697-2	FS23	Soluble	Solid	300.0	14608
890-1697-3	SS01	Soluble	Solid	300.0	14608
890-1697-4	SS02	Soluble	Solid	300.0	14608
890-1697-5	SS03	Soluble	Solid	300.0	14608
MB 880-14608/1-A	Method Blank	Soluble	Solid	300.0	14608
LCS 880-14608/2-A	Lab Control Sample	Soluble	Solid	300.0	14608
LCSD 880-14608/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14608
880-9251-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	14608
880-9251-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	14608
890-1696-A-1-N MS	Matrix Spike	Soluble	Solid	300.0	14608
890-1696-A-1-O MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	14608

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Client Sample ID: FS22

Lab Sample ID: 890-1697-1
Matrix: Solid
Date Collected: 12/09/21 08:17
Date Received: 12/10/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	14447	12/13/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14589	12/13/21 13:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14599	12/13/21 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14594	12/13/21 14:34	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	14608	12/13/21 09:14	CH	XEN MID
Soluble	Analysis	300.0		5			14657	12/13/21 14:04	CH	XEN MID

Client Sample ID: FS23

Lab Sample ID: 890-1697-2
Matrix: Solid
Date Collected: 12/09/21 08:20
Date Received: 12/10/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14447	12/13/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14589	12/13/21 15:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14599	12/13/21 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14594	12/13/21 15:16	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14608	12/13/21 09:14	CH	XEN MID
Soluble	Analysis	300.0		1			14657	12/13/21 14:12	CH	XEN MID

Client Sample ID: SS01

Lab Sample ID: 890-1697-3
Matrix: Solid
Date Collected: 12/09/21 13:25
Date Received: 12/10/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	14447	12/13/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14589	12/13/21 15:42	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14599	12/13/21 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14594	12/13/21 15:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	14608	12/13/21 09:14	CH	XEN MID
Soluble	Analysis	300.0		1			14657	12/13/21 14:37	CH	XEN MID

Client Sample ID: SS02

Lab Sample ID: 890-1697-4
Matrix: Solid
Date Collected: 12/09/21 13:24
Date Received: 12/10/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14447	12/13/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14589	12/13/21 16:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Client Sample ID: SS02

Lab Sample ID: 890-1697-4
Matrix: Solid
Date Collected: 12/09/21 13:24
Date Received: 12/10/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14599	12/13/21 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14594	12/13/21 15:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	14608	12/13/21 09:14	CH	XEN MID
Soluble	Analysis	300.0		1			14657	12/13/21 14:46	CH	XEN MID

Client Sample ID: SS03

Lab Sample ID: 890-1697-5
Matrix: Solid
Date Collected: 12/09/21 13:23
Date Received: 12/10/21 11:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	14447	12/13/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14589	12/13/21 16:23	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:53	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14599	12/13/21 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14594	12/13/21 16:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14608	12/13/21 09:14	CH	XEN MID
Soluble	Analysis	300.0		1			14657	12/13/21 14:54	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1697-1
Project/Site: State QG Com 002H SDG: 31402909.040 Task 02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1697-1
Project/Site: State QG Com 002H SDG: 31402909.040 Task 02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1697-1
SDG: 31402909.040 Task 02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1697-1	FS22	Solid	12/09/21 08:17	12/10/21 11:21	4
890-1697-2	FS23	Solid	12/09/21 08:20	12/10/21 11:21	4
890-1697-3	SS01	Solid	12/09/21 13:25	12/10/21 11:21	0.25
890-1697-4	SS02	Solid	12/09/21 13:24	12/10/21 11:21	0.25
890-1697-5	SS03	Solid	12/09/21 13:23	12/10/21 11:21	0.25

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	State QG Com 002H	Turn Around	
Project Number:	31402909.040 Task 02	Routine ☐	
P.O. Number:		Rush: 2 day	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Temperature (°C):	1.4 / 1.2	Thermometer ID		
Received Intact:	Yes No	T-NM-007		
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Total Containers:		

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS22	S	12/09/21	8:17	4'	1	X	X	X	Composite
FS23	S	12/09/21	8:20	4'	1	X	X	X	Composite
SS01	S	12/09/21	13:25	0.25'	1	X	X	X	Composite
SS02	S	12/09/21	13:24	0.25'	1	X	X	X	Composite
SS03	S	12/09/21	13:23	0.25'	1	X	X	X	Composite

ANALYSIS REQUEST

890-1697 Chain of Custody

Work Order Notes

DUE DATE FOR SAMPLES
12/14/2021

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 P Benner	N. Ott	12/10/21 11:21	2		
3			4		
5			6		

Revised Date 051418 Rev 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1697-1
SDG Number: 31402909.040 Task 02

Login Number: 1697
List Number: 1
Creator: Olivas, Nathaniel

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1697-1
SDG Number: 31402909.040 Task 02

Login Number: 1697
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Xenco, Midland
List Creation: 12/13/21 07:52 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1722-1
Laboratory Sample Delivery Group: 31402909.040 task02
Client Project/Site: State QG Com 002H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/23/2021 11:47:24 AM

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

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

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

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Laboratory Job ID: 890-1722-1
SDG: 31402909.040 task02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1722-1
Project/Site: State QG Com 002H SDG: 31402909.040 task02

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Job ID: 890-1722-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1722-1

Receipt
The samples were received on 12/15/2021 2:33 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°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 and precision for preparation batch 880-15089 and analytical batch 880-15128 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Client Sample ID: FS24

Lab Sample ID: 890-1722-1
Matrix: Solid
Date Collected: 12/15/21 12:15
Date Received: 12/15/21 14:33
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:30	12/17/21 20:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:30	12/17/21 20:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:30	12/17/21 20:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/17/21 07:30	12/17/21 20:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/17/21 07:30	12/17/21 20:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/17/21 07:30	12/17/21 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*12/17/21 07:30*	*12/17/21 20:13*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*12/17/21 07:30*	*12/17/21 20:13*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 16:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 16:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/17/21 14:20	12/20/21 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*12/17/21 14:20*	*12/20/21 16:39*	*1*
o-Terphenyl	*118*		*70 - 130*	*12/17/21 14:20*	*12/20/21 16:39*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**52.7**		5.04		mg/Kg			12/20/21 11:02	1

Client Sample ID: SW16

Lab Sample ID: 890-1722-2
Matrix: Solid
Date Collected: 12/15/21 12:17
Date Received: 12/15/21 14:33
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:30	12/17/21 20:34	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:30	12/17/21 20:34	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:30	12/17/21 20:34	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		12/17/21 07:30	12/17/21 20:34	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/17/21 07:30	12/17/21 20:34	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		12/17/21 07:30	12/17/21 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*70 - 130*	*12/17/21 07:30*	*12/17/21 20:34*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Client Sample ID: SW16

Lab Sample ID: 890-1722-2
Matrix: Solid
Date Collected: 12/15/21 12:17
Date Received: 12/15/21 14:33
Sample Depth: 0 - 2

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*12/17/21 07:30*	*12/17/21 20:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/23/21 12:30	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 16:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 16:59	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*102*		*70 - 130*	*12/17/21 14:20*	*12/20/21 16:59*	*1*
o-Terphenyl	*101*		*70 - 130*	*12/17/21 14:20*	*12/20/21 16:59*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**153**		4.99		mg/Kg			12/20/21 11:22	1

Client Sample ID: SW17

Lab Sample ID: 890-1722-3
Matrix: Solid
Date Collected: 12/15/21 12:20
Date Received: 12/15/21 14:33
Sample Depth: 0 - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 20:54	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 20:54	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 20:54	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/17/21 07:30	12/17/21 20:54	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 20:54	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/17/21 07:30	12/17/21 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*12/17/21 07:30*	*12/17/21 20:54*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*12/17/21 07:30*	*12/17/21 20:54*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/21/21 14:36	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/23/21 12:30	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Client Sample ID: SW17

Date Collected: 12/15/21 12:20
Date Received: 12/15/21 14:33
Sample Depth: 0 - 2

Lab Sample ID: 890-1722-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 17:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 17:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*12/17/21 14:20*	*12/20/21 17:41*	*1*
o-Terphenyl	*96*		*70 - 130*	*12/17/21 14:20*	*12/20/21 17:41*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.3**		4.98		mg/Kg			12/20/21 11:29	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9418-A-1-B MS	Matrix Spike	111	95
880-9418-A-1-C MSD	Matrix Spike Duplicate	115	98
890-1722-1	FS24	117	90
890-1722-2	SW16	123	101
890-1722-3	SW17	128	100
LCS 880-14947/1-A	Lab Control Sample	109	95
LCSD 880-14947/2-A	Lab Control Sample Dup	105	88
MB 880-14947/5-A	Method Blank	127	103

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1722-1	FS24	116	118
890-1722-2	SW16	102	101
890-1722-3	SW17	96	96
890-1727-A-21-I MS	Matrix Spike	113	98
890-1727-A-21-J MSD	Matrix Spike Duplicate	111	97

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-15090/2-A	Lab Control Sample	100	97
LCSD 880-15090/3-A	Lab Control Sample Dup	110	116
MB 880-15090/1-A	Method Blank	142 S1+	233 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14947/5-A
Matrix: Solid
Analysis Batch: 15044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14947

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 12:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 12:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 12:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/17/21 07:30	12/17/21 12:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/17/21 07:30	12/17/21 12:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/17/21 07:30	12/17/21 12:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*70 - 130*	*12/17/21 07:30*	*12/17/21 12:15*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*12/17/21 07:30*	*12/17/21 12:15*	*1*

Lab Sample ID: LCS 880-14947/1-A
Matrix: Solid
Analysis Batch: 15044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14947

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07713		mg/Kg		77	70 - 130		
Toluene			0.100	0.07944		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.08804		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1690		mg/Kg		84	70 - 130		
o-Xylene			0.100	0.08372		mg/Kg		84	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-14947/2-A
Matrix: Solid
Analysis Batch: 15044

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14947

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07001		mg/Kg		70	70 - 130	10	35
Toluene			0.100	0.07999		mg/Kg		80	70 - 130	1	35
Ethylbenzene			0.100	0.08573		mg/Kg		86	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1635		mg/Kg		82	70 - 130	3	35
o-Xylene			0.100	0.08052		mg/Kg		81	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*

Lab Sample ID: 880-9418-A-1-B MS
Matrix: Solid
Analysis Batch: 15044

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 14947

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00199	U	0.100	0.08225		mg/Kg		82	70 - 130		
Toluene	<0.00199	U	0.100	0.08464		mg/Kg		84	70 - 130		

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

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

Lab Sample ID: 880-9418-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15044 — **Prep Batch: 14947**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.100	0.09095		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.201	0.1784		mg/Kg		89	70 - 130
o-Xylene	<0.00199	U	0.100	0.08875		mg/Kg		88	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-9418-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15044 — **Prep Batch: 14947**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.08583		mg/Kg		86	70 - 130	4	35
Toluene	<0.00199	U	0.100	0.08664		mg/Kg		86	70 - 130	2	35
Ethylbenzene	<0.00199	U	0.100	0.09360		mg/Kg		93	70 - 130	3	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1799		mg/Kg		90	70 - 130	1	35
o-Xylene	<0.00199	U	0.100	0.08814		mg/Kg		88	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-15090/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15096 — **Prep Batch: 15090**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 12:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 12:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/17/21 14:20	12/20/21 12:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*142*	*S1+*	*70 - 130*	*12/17/21 14:20*	*12/20/21 12:12*	*1*
o-Terphenyl	*233*	*S1+*	*70 - 130*	*12/17/21 14:20*	*12/20/21 12:12*	*1*

Lab Sample ID: LCS 880-15090/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15096 — **Prep Batch: 15090**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10			1000	883.9		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)			1000	935.7		mg/Kg		94	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

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

Lab Sample ID: LCS 880-15090/2-A
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 15090

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

Lab Sample ID: LCSD 880-15090/3-A
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 15090

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	924.4		mg/Kg		92	70 - 130	4	20
Diesel Range Organics (Over C10-C28)			1000	953.9		mg/Kg		95	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	116		70 - 130

Lab Sample ID: 890-1727-A-21-I MS
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 15090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	996	1328		mg/Kg		129	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	1339	F1	mg/Kg		134	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: 890-1727-A-21-J MSD
Matrix: Solid
Analysis Batch: 15096

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 15090

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	995	1392	F1	mg/Kg		136	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	995	1328	F1	mg/Kg		133	70 - 130	1	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	97		70 - 130

QC Sample Results

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15089/1-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/20/21 10:02	1

Lab Sample ID: LCS 880-15089/2-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	265.7		mg/Kg		106	90 - 110		

Lab Sample ID: LCSD 880-15089/3-A
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	271.6		mg/Kg		109	90 - 110	2	20

Lab Sample ID: 890-1721-A-1-D MS
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	27.3	F1	248	313.8	F1	mg/Kg		116	90 - 110		

Lab Sample ID: 890-1721-A-1-E MSD
Matrix: Solid
Analysis Batch: 15128

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	27.3	F1	248	317.0	F1	mg/Kg		117	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1722-1
Project/Site: State QG Com 002H SDG: 31402909.040 task02

GC VOA

Prep Batch: 14947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Total/NA	Solid	5035	
890-1722-2	SW16	Total/NA	Solid	5035	
890-1722-3	SW17	Total/NA	Solid	5035	
MB 880-14947/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14947/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14947/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9418-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
880-9418-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 15044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Total/NA	Solid	8021B	14947
890-1722-2	SW16	Total/NA	Solid	8021B	14947
890-1722-3	SW17	Total/NA	Solid	8021B	14947
MB 880-14947/5-A	Method Blank	Total/NA	Solid	8021B	14947
LCS 880-14947/1-A	Lab Control Sample	Total/NA	Solid	8021B	14947
LCSD 880-14947/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14947
880-9418-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	14947
880-9418-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14947

Analysis Batch: 15276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Total/NA	Solid	Total BTEX	
890-1722-2	SW16	Total/NA	Solid	Total BTEX	
890-1722-3	SW17	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 15090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Total/NA	Solid	8015NM Prep	
890-1722-2	SW16	Total/NA	Solid	8015NM Prep	
890-1722-3	SW17	Total/NA	Solid	8015NM Prep	
MB 880-15090/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15090/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1727-A-21-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1727-A-21-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Total/NA	Solid	8015B NM	15090
890-1722-2	SW16	Total/NA	Solid	8015B NM	15090
890-1722-3	SW17	Total/NA	Solid	8015B NM	15090
MB 880-15090/1-A	Method Blank	Total/NA	Solid	8015B NM	15090
LCS 880-15090/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15090
LCSD 880-15090/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15090
890-1727-A-21-I MS	Matrix Spike	Total/NA	Solid	8015B NM	15090
890-1727-A-21-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	15090

QC Association Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

GC Semi VOA

Analysis Batch: 15468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Total/NA	Solid	8015 NM	
890-1722-2	SW16	Total/NA	Solid	8015 NM	
890-1722-3	SW17	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Soluble	Solid	DI Leach	
890-1722-2	SW16	Soluble	Solid	DI Leach	
890-1722-3	SW17	Soluble	Solid	DI Leach	
MB 880-15089/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15089/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15089/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1721-A-1-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1721-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 15128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1722-1	FS24	Soluble	Solid	300.0	15089
890-1722-2	SW16	Soluble	Solid	300.0	15089
890-1722-3	SW17	Soluble	Solid	300.0	15089
MB 880-15089/1-A	Method Blank	Soluble	Solid	300.0	15089
LCS 880-15089/2-A	Lab Control Sample	Soluble	Solid	300.0	15089
LCSD 880-15089/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15089
890-1721-A-1-D MS	Matrix Spike	Soluble	Solid	300.0	15089
890-1721-A-1-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15089

Lab Chronicle

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Client Sample ID: FS24

Lab Sample ID: 890-1722-1
Matrix: Solid
Date Collected: 12/15/21 12:15
Date Received: 12/15/21 14:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15044	12/17/21 20:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15276	12/21/21 14:36	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15096	12/20/21 16:39	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1			15128	12/20/21 11:02	CH	XEN MID

Client Sample ID: SW16

Lab Sample ID: 890-1722-2
Matrix: Solid
Date Collected: 12/15/21 12:17
Date Received: 12/15/21 14:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15044	12/17/21 20:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15276	12/21/21 14:36	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15096	12/20/21 16:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1			15128	12/20/21 11:22	CH	XEN MID

Client Sample ID: SW17

Lab Sample ID: 890-1722-3
Matrix: Solid
Date Collected: 12/15/21 12:20
Date Received: 12/15/21 14:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	15044	12/17/21 20:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15276	12/21/21 14:36	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			15468	12/23/21 12:30	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15096	12/20/21 17:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	15089	12/17/21 14:11	CA	XEN MID
Soluble	Analysis	300.0		1			15128	12/20/21 11:29	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1722-1
Project/Site: State QG Com 002H SDG: 31402909.040 task02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1722-1
Project/Site: State QG Com 002H SDG: 31402909.040 task02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: State QG Com 002H

Job ID: 890-1722-1
SDG: 31402909.040 task02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1722-1	FS24	Solid	12/15/21 12:15	12/15/21 14:33	2
890-1722-2	SW16	Solid	12/15/21 12:17	12/15/21 14:33	0 - 2
890-1722-3	SW17	Solid	12/15/21 12:20	12/15/21 14:33	0 - 2

Chain of Custody

Work Order No: _____

XENCO LABORATORIES

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

www.xenco.com Page 1 of 1

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

Work Order Comments

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

Project Name:	State QG Com 002H	Turn Around	
Project Number:	31402909.040 Task 02	Routine	✓
P.O. Number:		Rush:	
Sampler's Name:	Payton Benner	Due Date:	

SAMPLE RECEIPT				
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Temperature (°C):	3.2 | 3.0	Thermometer ID		
Received Intact:	(Yes) No		T-NM-007	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Total Containers:		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
FS24	S	12/15/21	12:15	2'	1	X	X	X	Composite
SW16	S	12/16/21	12:17	0-2'	1	X	X	X	Composite
SW17	S	12/17/21	12:20	0-2'	1	X	X	X	Composite

890-1722 Chain of Custody

Work Order Notes

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

Sample Comments

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 pbenner		12/15/21 2:31	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1722-1
SDG Number: 31402909.040 task02

Login Number: 1722
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1722-1
SDG Number: 31402909.040 task02

Login Number: 1722
List Number: 2
Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland
List Creation: 12/17/21 01:55 PM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-1716-1
Laboratory Sample Delivery Group: 31402909.404 TASK02
Client Project/Site: STATE QG COM 002H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
12/21/2021 3:07:34 PM

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

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

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

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Laboratory Job ID: 890-1716-1
SDG: 31402909.404 TASK02

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Job ID: 890-1716-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1716-1

Receipt
The samples were received on 12/14/2021 3:02 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-14937 and analytical batch 880-14890 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

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 880-15093 and analytical batch 880-15124 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. The associated samples are: (890-1726-A-7-E), (890-1726-A-7-F MS) and (890-1726-A-7-G MSD).

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: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

Client Sample ID: FS25

Lab Sample ID: 890-1716-1
Matrix: Solid
Date Collected: 12/14/21 11:03
Date Received: 12/14/21 15:02
Sample Depth: 2.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 14:46	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 14:46	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 14:46	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/16/21 07:45	12/16/21 14:46	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 14:46	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/16/21 07:45	12/16/21 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*70 - 130*	*12/16/21 07:45*	*12/16/21 14:46*	*1*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*	*12/16/21 07:45*	*12/16/21 14:46*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			12/17/21 08:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/16/21 10:41	12/18/21 01:56	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/16/21 10:41	12/18/21 01:56	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/16/21 10:41	12/18/21 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*12/16/21 10:41*	*12/18/21 01:56*	*1*
o-Terphenyl	*103*		*70 - 130*	*12/16/21 10:41*	*12/18/21 01:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.9**		4.95		mg/Kg			12/18/21 18:25	1

Client Sample ID: FS26

Lab Sample ID: 890-1716-2
Matrix: Solid
Date Collected: 12/14/21 11:00
Date Received: 12/14/21 15:02
Sample Depth: 2.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 15:06	1
Toluene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 15:06	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 15:06	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		12/16/21 07:45	12/16/21 15:06	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		12/16/21 07:45	12/16/21 15:06	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		12/16/21 07:45	12/16/21 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*	*12/16/21 07:45*	*12/16/21 15:06*	*1*

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Client Sample ID: FS26 — Lab Sample ID: 890-1716-2

Date Collected: 12/14/21 11:00 **Matrix: Solid**
Date Received: 12/14/21 15:02
Sample Depth: 2.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*12/16/21 07:45*	*12/16/21 15:06*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			12/17/21 08:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/16/21 10:41	12/18/21 02:17	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		12/16/21 10:41	12/18/21 02:17	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/16/21 10:41	12/18/21 02:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*101*		*70 - 130*	*12/16/21 10:41*	*12/18/21 02:17*	*1*
o-Terphenyl	*103*		*70 - 130*	*12/16/21 10:41*	*12/18/21 02:17*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.4**		5.05		mg/Kg			12/18/21 18:37	1

Client Sample ID: FS22A — Lab Sample ID: 890-1716-3

Date Collected: 12/14/21 10:20 **Matrix: Solid**
Date Received: 12/14/21 15:02
Sample Depth: 4.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/16/21 07:45	12/16/21 15:26	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/16/21 07:45	12/16/21 15:26	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/16/21 07:45	12/16/21 15:26	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/16/21 07:45	12/16/21 15:26	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/16/21 07:45	12/16/21 15:26	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/16/21 07:45	12/16/21 15:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*	*12/16/21 07:45*	*12/16/21 15:26*	*1*
1,4-Difluorobenzene (Surr)	*108*		*70 - 130*	*12/16/21 07:45*	*12/16/21 15:26*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/17/21 08:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/21/21 15:44	1

Client Sample Results

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

Client Sample ID: FS22A

Lab Sample ID: 890-1716-3
Matrix: Solid
Date Collected: 12/14/21 10:20
Date Received: 12/14/21 15:02
Sample Depth: 4.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/16/21 10:41	12/18/21 02:37	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/16/21 10:41	12/18/21 02:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/16/21 10:41	12/18/21 02:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*12/16/21 10:41*	*12/18/21 02:37*	*1*
o-Terphenyl	*101*		*70 - 130*	*12/16/21 10:41*	*12/18/21 02:37*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.3**		4.99		mg/Kg			12/19/21 15:09	1

Client Sample ID: SW15

Lab Sample ID: 890-1716-4
Matrix: Solid
Date Collected: 12/14/21 11:06
Date Received: 12/14/21 15:02
Sample Depth: 0 - 2.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		12/16/21 07:45	12/16/21 15:47	1
Toluene	**0.00220**		0.00201		mg/Kg		12/16/21 07:45	12/16/21 15:47	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		12/16/21 07:45	12/16/21 15:47	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		12/16/21 07:45	12/16/21 15:47	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		12/16/21 07:45	12/16/21 15:47	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		12/16/21 07:45	12/16/21 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*133*	*S1+*	*70 - 130*	*12/16/21 07:45*	*12/16/21 15:47*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*12/16/21 07:45*	*12/16/21 15:47*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			12/17/21 08:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/21/21 15:44	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/16/21 10:41	12/18/21 02:58	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/16/21 10:41	12/18/21 02:58	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/16/21 10:41	12/18/21 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*103*		*70 - 130*	*12/16/21 10:41*	*12/18/21 02:58*	*1*
o-Terphenyl	*103*		*70 - 130*	*12/16/21 10:41*	*12/18/21 02:58*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

Client Sample ID: SW15
Date Collected: 12/14/21 11:06
Date Received: 12/14/21 15:02
Sample Depth: 0 - 2.5

Lab Sample ID: 890-1716-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16.9		5.02		mg/Kg			12/19/21 15:44	1

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9414-A-1-A MS	Matrix Spike	76	91
880-9414-A-1-B MSD	Matrix Spike Duplicate	113	99
890-1716-1	FS25	128	86
890-1716-2	FS26	119	111
890-1716-3	FS22A	116	108
890-1716-4	SW15	133 S1+	98
890-1719-A-1-B MSD	Matrix Spike Duplicate	111	101
LCS 880-14827/1-A	Lab Control Sample	108	95
LCS 880-14937/1-A	Lab Control Sample	106	100
LCSD 880-14827/2-A	Lab Control Sample Dup	105	92
LCSD 880-14937/2-A	Lab Control Sample Dup	104	103
MB 880-14827/5-A	Method Blank	99	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-9353-A-21-C MS	Matrix Spike	84	88
880-9353-A-21-D MSD	Matrix Spike Duplicate	83	87
890-1716-1	FS25	102	103
890-1716-2	FS26	101	103
890-1716-3	FS22A	101	101
890-1716-4	SW15	103	103

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO2	OTPH2
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 880-14820/2-A	Lab Control Sample	98	104
LCSD 880-14820/3-A	Lab Control Sample Dup	108	115
MB 880-14820/1-A	Method Blank	119	121

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14827/5-A
Matrix: Solid
Analysis Batch: 14890

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 14827

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/16/21 07:45	12/16/21 10:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/16/21 07:45	12/16/21 10:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/16/21 07:45	12/16/21 10:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/16/21 07:45	12/16/21 10:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/16/21 07:45	12/16/21 10:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/16/21 07:45	12/16/21 10:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*12/16/21 07:45*	*12/16/21 10:39*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*12/16/21 07:45*	*12/16/21 10:39*	*1*

Lab Sample ID: LCS 880-14827/1-A
Matrix: Solid
Analysis Batch: 14890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 14827

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07563		mg/Kg		76	70 - 130		
Toluene			0.100	0.07381		mg/Kg		74	70 - 130		
Ethylbenzene			0.100	0.07648		mg/Kg		76	70 - 130		
m-Xylene & p-Xylene			0.200	0.1583		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.08001		mg/Kg		80	70 - 130		

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

Lab Sample ID: LCSD 880-14827/2-A
Matrix: Solid
Analysis Batch: 14890

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 14827

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.07974		mg/Kg		80	70 - 130	5	35
Toluene			0.100	0.08006		mg/Kg		80	70 - 130	8	35
Ethylbenzene			0.100	0.08202		mg/Kg		82	70 - 130	7	35
m-Xylene & p-Xylene			0.200	0.1693		mg/Kg		85	70 - 130	7	35
o-Xylene			0.100	0.08345		mg/Kg		83	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*

Lab Sample ID: 890-1719-A-1-B MSD
Matrix: Solid
Analysis Batch: 14890

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 14827

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.101	0.07696		mg/Kg					
Toluene	<0.00199	U	0.101	0.07807		mg/Kg					

QC Sample Results

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

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

Lab Sample ID: 890-1719-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14890 — **Prep Batch: 14827**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00199	U	0.101	0.08397		mg/Kg					
m-Xylene & p-Xylene	<0.00398	U	0.202	0.1784		mg/Kg					
o-Xylene	<0.00199	U	0.101	0.08729		mg/Kg					

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCS 880-14937/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14890 — **Prep Batch: 14937**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.08252		mg/Kg		83	70 - 130		
Toluene			0.100	0.08213		mg/Kg		82	70 - 130		
Ethylbenzene			0.100	0.08376		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1748		mg/Kg		87	70 - 130		
o-Xylene			0.100	0.08558		mg/Kg		86	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-14937/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14890 — **Prep Batch: 14937**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.08462		mg/Kg		85	70 - 130	3	35
Toluene			0.100	0.08018		mg/Kg		80	70 - 130	2	35
Ethylbenzene			0.100	0.08223		mg/Kg		82	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.1664		mg/Kg		83	70 - 130	5	35
o-Xylene			0.100	0.08167		mg/Kg		82	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-9414-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14890 — **Prep Batch: 14937**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.00201	U F1	0.101	0.03860	F1	mg/Kg		37	70 - 130		
Toluene	<0.00201	U F1	0.101	0.03384	F1	mg/Kg		32	70 - 130		
Ethylbenzene	0.0274	F1	0.101	0.08984	F1	mg/Kg		62	70 - 130		
m-Xylene & p-Xylene	0.0731		0.202	0.2300		mg/Kg		78	70 - 130		
o-Xylene	0.0498	F1 F2	0.101	0.1084	F1	mg/Kg		58	70 - 130		

QC Sample Results

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

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

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	76		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 880-9414-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 14890 — **Prep Batch: 14937**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00201	U F1	0.0990	0.03484	F1	mg/Kg		34	70 - 130	10	35
Toluene	<0.00201	U F1	0.0990	0.03054	F1	mg/Kg		29	70 - 130	10	35
Ethylbenzene	0.0274	F1	0.0990	0.1033		mg/Kg		77	70 - 130	14	35
m-Xylene & p-Xylene	0.0731		0.198	0.2871		mg/Kg		108	70 - 130	22	35
o-Xylene	0.0498	F1 F2	0.0990	0.1636	F2	mg/Kg		115	70 - 130	41	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

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

Lab Sample ID: MB 880-14820/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15015 — **Prep Batch: 14820**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/15/21 10:41	12/17/21 19:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/15/21 10:41	12/17/21 19:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/15/21 10:41	12/17/21 19:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	119		70 - 130	12/15/21 10:41	12/17/21 19:43	1
o-Terphenyl	121		70 - 130	12/15/21 10:41	12/17/21 19:43	1

Lab Sample ID: LCS 880-14820/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 15015 — **Prep Batch: 14820**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	871.5		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	909.9		mg/Kg		91	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	104		70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

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

Lab Sample ID: LCSD 880-14820/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15015 **Prep Batch: 14820**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	921.3		mg/Kg		92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)			1000	938.2		mg/Kg		94	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*108*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: 880-9353-A-21-C MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15015 **Prep Batch: 14820**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	1061		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)	95.5		996	931.0		mg/Kg		84	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*84*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Lab Sample ID: 880-9353-A-21-D MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 15015 **Prep Batch: 14820**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	1057		mg/Kg		104	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	95.5		995	924.9		mg/Kg		83	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*83*		*70 - 130*
o-Terphenyl	*87*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15093/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 15124

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/18/21 16:36	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-15093/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15124

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

Lab Sample ID: LCSD 880-15093/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15124

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	258.2		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-1726-A-7-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15124

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	50.8	F1	250	331.3	F1	mg/Kg		112	90 - 110		

Lab Sample ID: 890-1726-A-7-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15124

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	50.8	F1	250	330.8	F1	mg/Kg		112	90 - 110	0	20

Lab Sample ID: MB 880-15034/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15133

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/19/21 11:47	1

Lab Sample ID: LCS 880-15034/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15133

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	269.4		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-15034/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15133

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	266.6		mg/Kg		107	90 - 110	1	20

Lab Sample ID: 890-1716-3 MS — **Client Sample ID: FS22A**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 15133

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	40.3		250	301.7		mg/Kg		105	90 - 110		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 890-1716-3 MSD **Client Sample ID: FS22A**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 15133

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	40.3		250	305.1		mg/Kg		106	90 - 110	1	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

GC VOA

Prep Batch: 14827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Total/NA	Solid	5035	
890-1716-2	FS26	Total/NA	Solid	5035	
890-1716-3	FS22A	Total/NA	Solid	5035	
890-1716-4	SW15	Total/NA	Solid	5035	
MB 880-14827/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14827/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14827/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1719-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 14890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Total/NA	Solid	8021B	14827
890-1716-2	FS26	Total/NA	Solid	8021B	14827
890-1716-3	FS22A	Total/NA	Solid	8021B	14827
890-1716-4	SW15	Total/NA	Solid	8021B	14827
MB 880-14827/5-A	Method Blank	Total/NA	Solid	8021B	14827
LCS 880-14827/1-A	Lab Control Sample	Total/NA	Solid	8021B	14827
LCS 880-14937/1-A	Lab Control Sample	Total/NA	Solid	8021B	14937
LCSD 880-14827/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14827
LCSD 880-14937/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14937
880-9414-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	14937
880-9414-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14937
890-1719-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14827

Prep Batch: 14937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-14937/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14937/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9414-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-9414-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 15035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Total/NA	Solid	Total BTEX	
890-1716-2	FS26	Total/NA	Solid	Total BTEX	
890-1716-3	FS22A	Total/NA	Solid	Total BTEX	
890-1716-4	SW15	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 14820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Total/NA	Solid	8015NM Prep	
890-1716-2	FS26	Total/NA	Solid	8015NM Prep	
890-1716-3	FS22A	Total/NA	Solid	8015NM Prep	
890-1716-4	SW15	Total/NA	Solid	8015NM Prep	
MB 880-14820/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14820/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14820/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-9353-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-9353-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

GC Semi VOA

Analysis Batch: 15015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Total/NA	Solid	8015B NM	14820
890-1716-2	FS26	Total/NA	Solid	8015B NM	14820
890-1716-3	FS22A	Total/NA	Solid	8015B NM	14820
890-1716-4	SW15	Total/NA	Solid	8015B NM	14820
MB 880-14820/1-A	Method Blank	Total/NA	Solid	8015B NM	14820
LCS 880-14820/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14820
LCSD 880-14820/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14820
880-9353-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	14820
880-9353-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14820

Analysis Batch: 15281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Total/NA	Solid	8015 NM	
890-1716-2	FS26	Total/NA	Solid	8015 NM	
890-1716-3	FS22A	Total/NA	Solid	8015 NM	
890-1716-4	SW15	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 15034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-3	FS22A	Soluble	Solid	DI Leach	
890-1716-4	SW15	Soluble	Solid	DI Leach	
MB 880-15034/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15034/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15034/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1716-3 MS	FS22A	Soluble	Solid	DI Leach	
890-1716-3 MSD	FS22A	Soluble	Solid	DI Leach	

Leach Batch: 15093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Soluble	Solid	DI Leach	
890-1716-2	FS26	Soluble	Solid	DI Leach	
MB 880-15093/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15093/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15093/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1726-A-7-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1726-A-7-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 15124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-1	FS25	Soluble	Solid	300.0	15093
890-1716-2	FS26	Soluble	Solid	300.0	15093
MB 880-15093/1-A	Method Blank	Soluble	Solid	300.0	15093
LCS 880-15093/2-A	Lab Control Sample	Soluble	Solid	300.0	15093
LCSD 880-15093/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15093
890-1726-A-7-F MS	Matrix Spike	Soluble	Solid	300.0	15093
890-1726-A-7-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	15093

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

HPLC/IC

Analysis Batch: 15133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1716-3	FS22A	Soluble	Solid	300.0	15034
890-1716-4	SW15	Soluble	Solid	300.0	15034
MB 880-15034/1-A	Method Blank	Soluble	Solid	300.0	15034
LCS 880-15034/2-A	Lab Control Sample	Soluble	Solid	300.0	15034
LCSD 880-15034/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15034
890-1716-3 MS	FS22A	Soluble	Solid	300.0	15034
890-1716-3 MSD	FS22A	Soluble	Solid	300.0	15034

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Client Sample ID: FS25 Lab Sample ID: 890-1716-1

Date Collected: 12/14/21 11:03 **Matrix: Solid**
Date Received: 12/14/21 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	14827	12/16/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14890	12/16/21 14:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15035	12/17/21 08:51	KL	XEN MID
Total/NA	Analysis	8015 NM		1			15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14820	12/16/21 10:41	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15015	12/18/21 01:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	15093	12/17/21 15:48	SC	XEN MID
Soluble	Analysis	300.0		1			15124	12/18/21 18:25	SC	XEN MID

Client Sample ID: FS26 Lab Sample ID: 890-1716-2

Date Collected: 12/14/21 11:00 **Matrix: Solid**
Date Received: 12/14/21 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	14827	12/16/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14890	12/16/21 15:06	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15035	12/17/21 08:51	KL	XEN MID
Total/NA	Analysis	8015 NM		1			15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14820	12/16/21 10:41	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15015	12/18/21 02:17	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	15093	12/17/21 15:48	SC	XEN MID
Soluble	Analysis	300.0		1			15124	12/18/21 18:37	SC	XEN MID

Client Sample ID: FS22A Lab Sample ID: 890-1716-3

Date Collected: 12/14/21 10:20 **Matrix: Solid**
Date Received: 12/14/21 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	14827	12/16/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14890	12/16/21 15:26	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15035	12/17/21 08:53	KL	XEN MID
Total/NA	Analysis	8015 NM		1			15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14820	12/16/21 10:41	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15015	12/18/21 02:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	15034	12/17/21 08:50	CA	XEN MID
Soluble	Analysis	300.0		1			15133	12/19/21 15:09	SC	XEN MID

Client Sample ID: SW15 Lab Sample ID: 890-1716-4

Date Collected: 12/14/21 11:06 **Matrix: Solid**
Date Received: 12/14/21 15:02

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	14827	12/16/21 07:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14890	12/16/21 15:47	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			15035	12/17/21 08:53	KL	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

Client Sample ID: SW15

Date Collected: 12/14/21 11:06
Date Received: 12/14/21 15:02

Lab Sample ID: 890-1716-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			15281	12/21/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	14820	12/16/21 10:41	DM	XEN MID
Total/NA	Analysis	8015B NM		1			15015	12/18/21 02:58	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	15034	12/17/21 08:50	CA	XEN MID
Soluble	Analysis	300.0		1			15133	12/19/21 15:44	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1716-1
Project/Site: STATE QG COM 002H SDG: 31402909.404 TASK02

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: STATE QG COM 002H

Job ID: 890-1716-1
SDG: 31402909.404 TASK02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1716-1	FS25	Solid	12/14/21 11:03	12/14/21 15:02	2.5
890-1716-2	FS26	Solid	12/14/21 11:00	12/14/21 15:02	2.5
890-1716-3	FS22A	Solid	12/14/21 10:20	12/14/21 15:02	4.5
890-1716-4	SW15	Solid	12/14/21 11:06	12/14/21 15:02	0 - 2.5

Chain of Custody

XENCO LABORATORIES

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432) 704-5440 EL Paso,TX (915) 585-3443 Lubbock,TX (806) 794-1296 Crasbad, NM (432) 704-5440
Phoenix,AZ (480) 355-0900 Atlanta,GA (770) 449-8800 Tampa,FL (813) 620-2000 West Palm Beach, FL (561) 689-6701

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	KALEI JENNINGS	Bill to: (if different)	KALEI JENNINGS
Company Name:	WSP USA	Company Name:	WSP USA
Address:	3300 NORTH A St. Bldg 1, #222	Address:	3300 NORTH A ST. BLD61, 222
City, State ZIP:	MIDIAND, Tx. 79705	City, State ZIP:	MIDLAND, Tx, 79705
Phone:	817-683-2503	Email:	KALEI.JENNINGS@WSP.COM

Work Order Comments

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

Project Name:	STATE QG WOM 002H	Turn Around	
Project Number:	31402909.404 TASK 02	Routine	☒
Project Location		Rush:	
Sampler's Name:	PAYTON BENNER	Due Date:	
PO #:		Quote #:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	3.0/2.8	Thermometer ID	WOM-002
Received Intact:	(Yes) No	Correction Factor:	-0.2
Cooler Custody Seals:	Yes No ~~N/A~~	Total Containers:	
Sample Custody Seals:	Yes No (N/A)		

ANALYSIS REQUEST

Preservative Codes

MeOH: Me
None: NO
HNO3: HN
H2S04: H2
HCL: HL
NaOH: Na
Zn Acetate+ NaOH: Zn

TAT starts the day recevied by the lab, if received by 4:00pm

Lab ID	Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	CHLORIDE (EPA 300.0)	Sample Comments
	FS25	S	12/14/21	11:03	2.5'	1		X	X	X	~~DISCRET~~ COMPOSITE
	FS26	S	↓	11:00	2.5'	1		X	X	X	COMPOSITE
	FS22A	S	↓	10:20	4.25'	1		X	X	X	↓
	SW15	S	↓	11:06	0-2.5'	1		X	X	X	

890-1716 Chain of Custody

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 phenner	Ace Cup	12-14-21 1502	2		
3			4		
5			6		

Revised Date 022619 Rev 2019 1

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-548 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1716-1
Address: 1211 W Florida Ave	Due Date Requested: 12/20/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: STATE QG COM 002H	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note
			Preservation Code:										
FS25 (890-1716-1)	12/14/21	11 03 Mountain		Solid			X	X	X	X	X	1	
FS26 (890-1716-2)	12/14/21	11 00 Mountain		Solid			X	X	X	X	X	1	
FS22A (890-1716-3)	12/14/21	10 20 Mountain		Solid			X	X	X	X	X	1	
SW15 (890-1716-4)	12/14/21	11 06 Mountain		Solid			X	X	X	X	X	1	

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

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

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Relinquished by: [illegible] 12 15 21	Date/Time	Company	Received by: [illegible]	Date/Time: 12/16/21 13:0	Company
2	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 4.6/4.7 .10 IR

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1716-1
SDG Number: 31402909.404 TASK02

Login Number: 1716
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1716-1
SDG Number: 31402909.404 TASK02

Login Number: 1716
List Number: 2
Creator: Lowe, Katie

List Source: Eurofins Xenco, Midland
List Creation: 12/16/21 01:22 PM

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

ATTACHMENT 3: FINAL 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	NAPP2110641182
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 32.14607 Longitude -104.120778
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	State GQ Com 002H	Site Type	Flow Line
Date Release Discovered	April 5, 2021	API# *(if applicable)*	

Unit Letter	Section	Township	Range	County
H	07	25S	28E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 13	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a poly line being ran over.
The release was on a lease road. A vacuum truck was dispatched to remove all freestanding fluids. Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2110641182
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ■ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

- ■ The source of the release has been stopped.
- ■ The impacted area has been secured to protect human health and the environment.
- ■ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ■ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Brittany N. Esparza Title: HSE Administrative Assistant

Signature: Brittany Esparza Date: 4/16/2021

email: besparza@concho.com Telephone: (432) 221-0398

OCD Only

Received by: Ramona Marcus Date: 5/7/2021

NAPP2110641182

****** LIQUID SPILLS - VOLUME CALCULATIONS ******

Location of spill: State GQ State Com 002 **Date of Spill:** 5-Apr-2021

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:** X

Input Data:

	OIL:	WATER:
If spill volumes from measurement, i.e. metering, tank volumes, etc. are known enter the volumes here:	0.0 BBL	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

Total Surface Area	width		length		wet soil depth	oil (%)
Rectangle Area #1	20 ft		155 ft	X	2.00 in	0%
Rectangle Area #2	0 ft	X	0 0	X	0.00 in	0%
Rectangle Area #3	0 ft	X	0 ft	X	0.00 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 #6	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%

Standing Liquid Calculations

Standing Liquid Area	width		length		liquid depth	oil (%)
Rectangle Area #1	0 ft	X	0 ft	X	0 in	0%
Rectangle Area #2	0 ft	X	0 ft	X	0 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 #5	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 #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: **3,100 sq. ft.** **517 cu. ft.** **cu. ft.**

Total Free Liquid Volume: **sq. ft.** **cu. ft.** **cu. ft.**

Estimated Volumes Spilled

	H2O	OIL
Liquid in Soil:	12.9 BBL	0.0 BBL
Free Liquid:	0.0 BBL	0.0 BBL
Totals:	**12.9 BBL**	**0.0 BBL**
Total Liquid Spill Liquid:	**12.9 BBL**	**0.00 BBL**

Estimated Production Volumes Lost

	H2O	OIL
Estimated Production Spilled:	**0.0** BBL	**0.0** BBL

Estimated Surface Damage

Surface Area: 3,100 sq. ft.

Surface Area: .0712 acre

Recovered Volumes

Estimated oil recovered: **BBL** check - okay

Estimated water recovered: **BBL** check - okay

Estimated Weights, and Volumes

Saturated Soil = 57,867 lbs 517 cu. ft. 19 cu. yds.

Total Liquid = 13 BBL 541 gallon 4,502 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

District I
1625 N. French Dr., Hobbs, NM 88240
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 24338

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	229137	24338	C-141

OCD Reviewer	Condition
rmarcus	None

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2110641182
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?	<50 (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.

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Page 5

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2110641182
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 Tavarez Title: Risk Management & Remediation

Signature: Ike Tavarez Date: 1/28/2022

email: Ike.Tavarez@conocophillips.com Telephone: 432-701-8630

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2110641182
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: Risk Management & Remediation

Signature: Ike Tavarez Date: 01/28/2022

email: Ike.Tavarez@conocophillips.com Telephone: (432)-701-8630

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 02/16/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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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 78573

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 78573
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	None	2/16/2022