

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	NAPP2102235706
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Kyle Littrell	Contact Telephone 432-221-7331
Contact email Kyle_Littrell@xtoenergy.com	Incident # (assigned by OCD)
Contact mailing address 522 W. Mermod, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.21043 Longitude -103.77046
(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 15 TWR 901H	Site Type Well Head
Date Release Discovered 1-13-2021	API# (if applicable)

Unit Letter	Section	Township	Range	County
M	15	24S	31E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 9.95	Volume Recovered (bbls) 8.75
☒ Produced Water	Volume Released (bbls) 29.84	Volume Recovered (bbls) 26.25
	Is the concentration of total dissolved solids (TDS) 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 A contractor reported a release of fluid coming from a buried flowline. The release was determined to be from a welded joint. A third-party contractor has been retained for remediation activities.

Form C-141

State of New Mexico
Oil Conservation Division

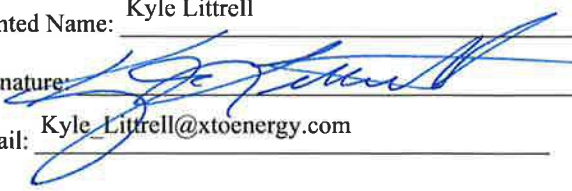
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? A release equal to or greater than 25 barrels.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, by Adrian Baker to 'Bratcher, Mike, EMNRD'; Hamlet, Robert, EMNRD; Venegas, Victoria, EMNRD; emily.hernandez@state.nm.us; Morgan, Crisha A; Morgan, Crisha A on Wednesday, January 13, 2021 2:53 PM via email.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: NA	
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: <u>Kyle Littrell</u> Signature:  email: <u>Kyle_Littrell@xtoenergy.com</u>	Title: <u>Environmental Manager</u> Date: <u>1-22-21</u> Telephone: <u>432-221-7331</u>
<u>OCD Only</u> Received by: _____ Date: _____	

Incident ID	NAPP2102235706
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

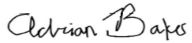
If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods,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

State of New Mexico
Oil Conservation Division

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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Adrian Baker Title: Environmental CoordinatorSignature:  Date: 02/04/2022email: Adrian.Baker@exxonmobil.com Telephone: 432-236-3808**OCD Only**

Received by: _____ Date: _____

Incident ID	NAPP2102235706
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Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Adrian BakerTitle: Environmental CoordinatorSignature: Adrian BakerDate: 02/04/2022Email: adrian.baker@exxonmobil.comTelephone: 432-236-3808**OCD Only**Received by: Chad Hensley Date: 02/22/2022☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral ApprovedSignature: Chad HensleyDate: 02/22/2022

ATTACHMENT 4: LABORATORY ANALYTICAL REPORTS



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-258-1
Client Project/Site: PLU 15 TWR 901 H

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

Attn: Dan Moir

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

Authorized for release by:
3/9/2021 2:34:09 PM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Laboratory Job ID: 890-258-1

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Qualifiers

Subcontract

Qualifier	Qualifier Description
U	Analyte was not detected.
X	MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference

Glossary

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

Eurofins Carlsbad

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Job ID: 890-258-1

Laboratory: Eurofins Carlsbad**Narrative**

**Job Narrative
890-258-1****Comments**

No additional comments.

Receipt

The samples were received on 3/4/2021 3:30 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 was 1.0° C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: BH01 (890-258-1), BH01 A (890-258-2), BH02 (890-258-3), BH02 A (890-258-4), BH03 (890-258-5), BH03 A (890-258-6), BH04 (890-258-7) and BH04 A (890-258-8).

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Client Sample ID: BH01

Lab Sample ID: 890-258-1

Date Collected: 03/02/21 14:10

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U X	0.00202		mg/kg		03/06/21 08:30	03/07/21 17:28	1
Ethylbenzene	0.00258	X	0.00202		mg/kg		03/06/21 08:30	03/07/21 17:28	1
m,p-Xylenes	<0.00404	U X	0.00404		mg/kg		03/06/21 08:30	03/07/21 17:28	1
o-Xylene	0.00288	X	0.00202		mg/kg		03/06/21 08:30	03/07/21 17:28	1
Toluene	<0.00202	U X	0.00202		mg/kg		03/06/21 08:30	03/07/21 17:28	1
Total BTEX	0.00546		0.00202		mg/kg		03/06/21 08:30	03/07/21 17:28	1
Total Xylenes	0.00288		0.00202		mg/kg		03/06/21 08:30	03/07/21 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	102		70 - 130	03/06/21 08:30	03/07/21 17:28	1
4-Bromofluorobenzene	100		70 - 130	03/06/21 08:30	03/07/21 17:28	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		5.05		mg/kg		03/08/21 13:10	03/08/21 17:09	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	657		49.9		mg/kg		03/05/21 17:00	03/06/21 04:18	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/05/21 17:00	03/06/21 04:18	1
Motor Oil Range Hydrocarbons (MRO)	127		49.9		mg/kg		03/05/21 17:00	03/06/21 04:18	1
Total TPH	784		49.9		mg/kg		03/05/21 17:00	03/06/21 04:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 135	03/05/21 17:00	03/06/21 04:18	1
o-Terphenyl	78		70 - 135	03/05/21 17:00	03/06/21 04:18	1

Client Sample ID: BH01 A

Lab Sample ID: 890-258-2

Date Collected: 03/02/21 14:20

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/06/21 08:30	03/07/21 17:49	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/06/21 08:30	03/07/21 17:49	1
m,p-Xylenes	<0.00399	U	0.00399		mg/kg		03/06/21 08:30	03/07/21 17:49	1
o-Xylene	0.00205		0.00200		mg/kg		03/06/21 08:30	03/07/21 17:49	1
Toluene	<0.00200	U	0.00200		mg/kg		03/06/21 08:30	03/07/21 17:49	1
Total BTEX	0.00205		0.00200		mg/kg		03/06/21 08:30	03/07/21 17:49	1
Total Xylenes	0.00205		0.00200		mg/kg		03/06/21 08:30	03/07/21 17:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	97		70 - 130	03/06/21 08:30	03/07/21 17:49	1
4-Bromofluorobenzene	104		70 - 130	03/06/21 08:30	03/07/21 17:49	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/kg		03/08/21 13:10	03/08/21 17:15	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Client Sample ID: BH01 A

Lab Sample ID: 890-258-2

Date Collected: 03/02/21 14:20

Matrix: Solid

Date Received: 03/04/21 15:30

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<49.8	U	49.8		mg/kg		03/05/21 17:00	03/06/21 04:40	1
Gasoline Range Hydrocarbons (GRO)	<49.8	U	49.8		mg/kg		03/05/21 17:00	03/06/21 04:40	1
Motor Oil Range Hydrocarbons (MRO)	<49.8	U	49.8		mg/kg		03/05/21 17:00	03/06/21 04:40	1
Total TPH	<49.8	U	49.8		mg/kg		03/05/21 17:00	03/06/21 04:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 135	03/05/21 17:00	03/06/21 04:40	1
o-Terphenyl	69		70 - 135	03/05/21 17:00	03/06/21 04:40	1

Client Sample ID: BH02

Lab Sample ID: 890-258-3

Date Collected: 03/02/21 14:30

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:09	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:09	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/06/21 08:30	03/07/21 18:09	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:09	1
Toluene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:09	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:09	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	96		70 - 130	03/06/21 08:30	03/07/21 18:09	1
4-Bromofluorobenzene	101		70 - 130	03/06/21 08:30	03/07/21 18:09	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/kg		03/08/21 13:10	03/08/21 17:33	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:02	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:02	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:02	1
Total TPH	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 135	03/05/21 17:00	03/06/21 05:02	1
o-Terphenyl	66		70 - 135	03/05/21 17:00	03/06/21 05:02	1

Client Sample ID: BH02 A

Lab Sample ID: 890-258-4

Date Collected: 03/02/21 14:40

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:30	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:30	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/06/21 08:30	03/07/21 18:30	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:30	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Client Sample ID: BH02 A

Lab Sample ID: 890-258-4

Date Collected: 03/02/21 14:40

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:30	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:30	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 18:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	96		70 - 130				03/06/21 08:30	03/07/21 18:30	1
4-Bromofluorobenzene	101		70 - 130				03/06/21 08:30	03/07/21 18:30	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.49		5.00		mg/kg		03/08/21 13:10	03/08/21 17:38	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:24	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:24	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:24	1
Total TPH	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 05:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	70		70 - 135				03/05/21 17:00	03/06/21 05:24	1
o-Terphenyl	70		70 - 135				03/05/21 17:00	03/06/21 05:24	1

Client Sample ID: BH03

Lab Sample ID: 890-258-5

Date Collected: 03/02/21 14:50

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/kg		03/06/21 08:30	03/07/21 18:50	1
Ethylbenzene	<0.00198	U	0.00198		mg/kg		03/06/21 08:30	03/07/21 18:50	1
m,p-Xylenes	<0.00397	U	0.00397		mg/kg		03/06/21 08:30	03/07/21 18:50	1
o-Xylene	<0.00198	U	0.00198		mg/kg		03/06/21 08:30	03/07/21 18:50	1
Toluene	<0.00198	U	0.00198		mg/kg		03/06/21 08:30	03/07/21 18:50	1
Total BTEX	<0.00198	U	0.00198		mg/kg		03/06/21 08:30	03/07/21 18:50	1
Total Xylenes	<0.00198	U	0.00198		mg/kg		03/06/21 08:30	03/07/21 18:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	80		70 - 130				03/06/21 08:30	03/07/21 18:50	1
4-Bromofluorobenzene	99		70 - 130				03/06/21 08:30	03/07/21 18:50	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	126		5.00		mg/kg		03/08/21 13:10	03/08/21 17:58	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	80.7		49.9		mg/kg		03/05/21 17:00	03/06/21 05:45	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/05/21 17:00	03/06/21 05:45	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/05/21 17:00	03/06/21 05:45	1
Total TPH	80.7		49.9		mg/kg		03/05/21 17:00	03/06/21 05:45	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Client Sample ID: BH03

Lab Sample ID: 890-258-5

Date Collected: 03/02/21 14:50

Matrix: Solid

Date Received: 03/04/21 15:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	71		70 - 135	03/05/21 17:00	03/06/21 05:45	1
o-Terphenyl	72		70 - 135	03/05/21 17:00	03/06/21 05:45	1

Client Sample ID: BH03 A

Lab Sample ID: 890-258-6

Date Collected: 03/02/21 15:00

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/kg		03/06/21 08:30	03/07/21 19:11	1
Ethylbenzene	<0.00202	U	0.00202		mg/kg		03/06/21 08:30	03/07/21 19:11	1
m,p-Xylenes	<0.00404	U	0.00404		mg/kg		03/06/21 08:30	03/07/21 19:11	1
o-Xylene	<0.00202	U	0.00202		mg/kg		03/06/21 08:30	03/07/21 19:11	1
Toluene	<0.00202	U	0.00202		mg/kg		03/06/21 08:30	03/07/21 19:11	1
Total BTEX	<0.00202	U	0.00202		mg/kg		03/06/21 08:30	03/07/21 19:11	1
Total Xylenes	<0.00202	U	0.00202		mg/kg		03/06/21 08:30	03/07/21 19:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	83		70 - 130				03/06/21 08:30	03/07/21 19:11	1
4-Bromofluorobenzene	104		70 - 130				03/06/21 08:30	03/07/21 19:11	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	119		5.00		mg/kg		03/08/21 13:10	03/08/21 18:04	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	125		50.0		mg/kg		03/05/21 17:00	03/06/21 06:06	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 06:06	1
Motor Oil Range Hydrocarbons (MRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 06:06	1
Total TPH	125		50.0		mg/kg		03/05/21 17:00	03/06/21 06:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 135				03/05/21 17:00	03/06/21 06:06	1
o-Terphenyl	78		70 - 135				03/05/21 17:00	03/06/21 06:06	1

Client Sample ID: BH04

Lab Sample ID: 890-258-7

Date Collected: 03/02/21 15:10

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 19:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 19:31	1
m,p-Xylenes	<0.00398	U	0.00398		mg/kg		03/06/21 08:30	03/07/21 19:31	1
o-Xylene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 19:31	1
Toluene	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 19:31	1
Total BTEX	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 19:31	1
Total Xylenes	<0.00199	U	0.00199		mg/kg		03/06/21 08:30	03/07/21 19:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	86		70 - 130				03/06/21 08:30	03/07/21 19:31	

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Client Sample ID: BH04

Lab Sample ID: 890-258-7

Date Collected: 03/02/21 15:10

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	121		70 - 130	03/06/21 08:30	03/07/21 19:31	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	227		5.00		mg/kg		03/08/21 13:10	03/08/21 18:10	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	171		49.9		mg/kg		03/05/21 17:00	03/06/21 06:27	1
Gasoline Range Hydrocarbons (GRO)	<49.9	U	49.9		mg/kg		03/05/21 17:00	03/06/21 06:27	1
Motor Oil Range Hydrocarbons (MRO)	<49.9	U	49.9		mg/kg		03/05/21 17:00	03/06/21 06:27	1
Total TPH	171		49.9		mg/kg		03/05/21 17:00	03/06/21 06:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 135	03/05/21 17:00	03/06/21 06:27	1
o-Terphenyl	75		70 - 135	03/05/21 17:00	03/06/21 06:27	1

Client Sample ID: BH04 A

Lab Sample ID: 890-258-8

Date Collected: 03/02/21 15:20

Matrix: Solid

Date Received: 03/04/21 15:30

Method: BTEX 8021 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/kg		03/06/21 08:30	03/07/21 19:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/kg		03/06/21 08:30	03/07/21 19:51	1
m,p-Xylenes	0.00475		0.00401		mg/kg		03/06/21 08:30	03/07/21 19:51	1
o-Xylene	0.00594		0.00200		mg/kg		03/06/21 08:30	03/07/21 19:51	1
Toluene	<0.00200	U	0.00200		mg/kg		03/06/21 08:30	03/07/21 19:51	1
Total BTEX	0.0107		0.00200		mg/kg		03/06/21 08:30	03/07/21 19:51	1
Total Xylenes	0.0107		0.00200		mg/kg		03/06/21 08:30	03/07/21 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene	95		70 - 130	03/06/21 08:30	03/07/21 19:51	1
4-Bromofluorobenzene	111		70 - 130	03/06/21 08:30	03/07/21 19:51	1

Method: CHLORIDE E300 - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	297		5.04		mg/kg		03/08/21 13:10	03/08/21 18:16	1

Method: TPH 8015_NM_MOD - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	325		50.0		mg/kg		03/05/21 17:00	03/06/21 06:48	1
Gasoline Range Hydrocarbons (GRO)	<50.0	U	50.0		mg/kg		03/05/21 17:00	03/06/21 06:48	1
Motor Oil Range Hydrocarbons (MRO)	121		50.0		mg/kg		03/05/21 17:00	03/06/21 06:48	1
Total TPH	446		50.0		mg/kg		03/05/21 17:00	03/06/21 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 135	03/05/21 17:00	03/06/21 06:48	1
o-Terphenyl	74		70 - 135	03/05/21 17:00	03/06/21 06:48	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Method: BTEX 8021 - General Subcontract Method

Matrix: SOIL

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)
690562-001 S	Matrix Spike	101
690562-001 SD	Matrix Spike Duplicate	106
7722713-1-BKS	Lab Control Sample	105
7722713-1-BLK	Method Blank	95
7722713-1-BSD	Lab Control Sample Dup	99

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: BTEX 8021 - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)	DFBZ (70-130)
890-258-1	BH01	100	102
890-258-2	BH01 A	104	97
890-258-3	BH02	101	96
890-258-4	BH02 A	101	96
890-258-5	BH03	99	80
890-258-6	BH03 A	104	83
890-258-7	BH04	121	86
890-258-8	BH04 A	111	95

Surrogate Legend

BFB = 4-Bromofluorobenzene

DFBZ = 1,4-Difluorobenzene

Method: TPH 8015_NM_MOD - General Subcontract Method

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO (70-135)	OTPH (70-135)
890-258-1	BH01	75	78
890-258-2	BH01 A	71	69
890-258-3	BH02	70	66
890-258-4	BH02 A	70	70
890-258-5	BH03	71	72
890-258-6	BH03 A	75	78
890-258-7	BH04	75	75
890-258-8	BH04 A	75	74

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Method: BTEX 8021 - General Subcontract Method

Lab Sample ID: 7722713-1-BLK

Matrix: SOIL

Analysis Batch: 3152799

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3152799_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<.002	U	.002		mg/kg		03/06/21 08:30	03/07/21 17:07	1
Ethylbenzene	<.002	U	.002		mg/kg		03/06/21 08:30	03/07/21 17:07	1
m,p-Xylenes	<.004	U	.004		mg/kg		03/06/21 08:30	03/07/21 17:07	1
o-Xylene	<.002	U	.002		mg/kg		03/06/21 08:30	03/07/21 17:07	1
Toluene	<.002	U	.002		mg/kg		03/06/21 08:30	03/07/21 17:07	1

Surrogate	BLANK %Recovery	BLANK Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		70 - 130	03/06/21 08:30	03/07/21 17:07	1

Lab Sample ID: 7722713-1-BKS

Matrix: SOIL

Analysis Batch: 3152799

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3152799_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	.1	0.0909		mg/kg		91	70 - 130
Ethylbenzene	.1	0.0933		mg/kg		93	71 - 129
m,p-Xylenes	.2	0.190		mg/kg		95	70 - 135
o-Xylene	.1	0.0957		mg/kg		96	71 - 133
Toluene	.1	0.0869		mg/kg		87	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	105		70 - 130

Lab Sample ID: 7722713-1-BSD

Matrix: SOIL

Analysis Batch: 3152799

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3152799_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	.1	0.0860		mg/kg		86	70 - 130	6	35
Ethylbenzene	.1	0.0880		mg/kg		88	71 - 129	6	35
m,p-Xylenes	.2	0.178		mg/kg		89	70 - 135	7	35
o-Xylene	.1	0.0897		mg/kg		90	71 - 133	6	35
Toluene	.1	0.0822		mg/kg		82	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	99		70 - 130

Lab Sample ID: 690562-001 S

Matrix: SOIL

Analysis Batch: 3152799

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 3152799_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<.002		.101	0.0562		mg/kg		56	70 - 130
Ethylbenzene	0.00258		.101	0.0469		mg/kg		44	71 - 129
m,p-Xylenes	<.004		.201	0.100		mg/kg		50	70 - 135
o-Xylene	0.00288		.101	0.0588		mg/kg		55	71 - 133
Toluene	<.002		.101	0.0476		mg/kg		47	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Method: BTEX 8021 - General Subcontract Method (Continued)

Lab Sample ID: 690562-001 S
Matrix: SOIL
Analysis Batch: 3152799

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3152799_P

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	101		70 - 130

Lab Sample ID: 690562-001 SD
Matrix: SOIL
Analysis Batch: 3152799

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 3152799_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<.002		.1	0.0430		mg/kg		43	70 - 130	27	35
Ethylbenzene	0.00258		.1	0.0379		mg/kg		35	71 - 129	21	35
m,p-Xylenes	<.004		.2	0.0841		mg/kg		42	70 - 135	17	35
o-Xylene	0.00288		.1	0.0543		mg/kg		51	71 - 133	8	35
Toluene	<.002		.1	0.0367		mg/kg		37	70 - 130	26	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	106		70 - 130

Method: CHLORIDE E300 - General Subcontract Method

Lab Sample ID: 7722792-1-BLK
Matrix: SOIL
Analysis Batch: 3152923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 3152923_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5	U	5		mg/kg		03/08/21 13:10	03/08/21 15:33	1

Lab Sample ID: 7722792-1-BKS
Matrix: SOIL
Analysis Batch: 3152923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 3152923_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	264		mg/kg		106	80 - 120

Lab Sample ID: 7722792-1-BSD
Matrix: SOIL
Analysis Batch: 3152923

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 3152923_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	264		mg/kg		106	80 - 120	0	20

Lab Sample ID: 690562-002 S
Matrix: SOIL
Analysis Batch: 3152923

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 3152923_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<4.95		248	269		mg/kg		108	80 - 120

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Method: CHLORIDE E300 - General Subcontract Method (Continued)

Lab Sample ID: 690562-002 SD

Matrix: SOIL

Analysis Batch: 3152923

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 3152923_P

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.95		248	272		mg/kg		110	80 - 120	1	20

Method: TPH 8015_NM_MOD - General Subcontract Method

Lab Sample ID: 7722737-1-BLK

Matrix: SOIL

Analysis Batch: 3152839

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 3152839_P

Analyte	BLANK Result	BLANK Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<50	U	50		mg/kg		03/05/21 17:00	03/05/21 22:31	1
Gasoline Range Hydrocarbons (GRO)	<50	U	50		mg/kg		03/05/21 17:00	03/05/21 22:31	1
Motor Oil Range Hydrocarbons (MRO)	<50	U	50		mg/kg		03/05/21 17:00	03/05/21 22:31	1

Lab Sample ID: 7722737-1-BKS

Matrix: SOIL

Analysis Batch: 3152839

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 3152839_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	1000	999		mg/kg		100	70 - 135
Gasoline Range Hydrocarbons (GRO)	1000	900		mg/kg		90	70 - 135

Lab Sample ID: 7722737-1-BSD

Matrix: SOIL

Analysis Batch: 3152839

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 3152839_P

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	1000	1070		mg/kg		107	70 - 135	7	20
Gasoline Range Hydrocarbons (GRO)	1000	913		mg/kg		91	70 - 135	1	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Subcontract

Analysis Batch: 3152799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-258-1	BH01	Total/NA	Solid	BTEX 8021	3152799_P
890-258-2	BH01 A	Total/NA	Solid	BTEX 8021	3152799_P
890-258-3	BH02	Total/NA	Solid	BTEX 8021	3152799_P
890-258-4	BH02 A	Total/NA	Solid	BTEX 8021	3152799_P
890-258-5	BH03	Total/NA	Solid	BTEX 8021	3152799_P
890-258-6	BH03 A	Total/NA	Solid	BTEX 8021	3152799_P
890-258-7	BH04	Total/NA	Solid	BTEX 8021	3152799_P
890-258-8	BH04 A	Total/NA	Solid	BTEX 8021	3152799_P
7722713-1-BLK	Method Blank	Total/NA	SOIL	BTEX 8021	3152799_P
7722713-1-BKS	Lab Control Sample	Total/NA	SOIL	BTEX 8021	3152799_P
7722713-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	BTEX 8021	3152799_P
690562-001 S	Matrix Spike	Total/NA	SOIL	BTEX 8021	3152799_P
690562-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	BTEX 8021	3152799_P

Analysis Batch: 3152839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-258-1	BH01	Total/NA	Solid	TPH	3152839_P
890-258-2	BH01 A	Total/NA	Solid	8015_NM_MOD TPH	3152839_P
890-258-3	BH02	Total/NA	Solid	8015_NM_MOD TPH	3152839_P
890-258-4	BH02 A	Total/NA	Solid	8015_NM_MOD TPH	3152839_P
890-258-5	BH03	Total/NA	Solid	8015_NM_MOD TPH	3152839_P
890-258-6	BH03 A	Total/NA	Solid	8015_NM_MOD TPH	3152839_P
890-258-7	BH04	Total/NA	Solid	8015_NM_MOD TPH	3152839_P
890-258-8	BH04 A	Total/NA	Solid	8015_NM_MOD TPH	3152839_P
7722737-1-BLK	Method Blank	Total/NA	SOIL	8015_NM_MOD TPH	3152839_P
7722737-1-BKS	Lab Control Sample	Total/NA	SOIL	8015_NM_MOD TPH	3152839_P
7722737-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	8015_NM_MOD TPH	3152839_P

Analysis Batch: 3152923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-258-1	BH01	Total/NA	Solid	CHLORIDE E300	3152923_P
890-258-2	BH01 A	Total/NA	Solid	CHLORIDE E300	3152923_P
890-258-3	BH02	Total/NA	Solid	CHLORIDE E300	3152923_P
890-258-4	BH02 A	Total/NA	Solid	CHLORIDE E300	3152923_P
890-258-5	BH03	Total/NA	Solid	CHLORIDE E300	3152923_P
890-258-6	BH03 A	Total/NA	Solid	CHLORIDE E300	3152923_P
890-258-7	BH04	Total/NA	Solid	CHLORIDE E300	3152923_P
890-258-8	BH04 A	Total/NA	Solid	CHLORIDE E300	3152923_P
7722792-1-BLK	Method Blank	Total/NA	SOIL	CHLORIDE E300	3152923_P
7722792-1-BKS	Lab Control Sample	Total/NA	SOIL	CHLORIDE E300	3152923_P
7722792-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	CHLORIDE E300	3152923_P
690562-002 S	Matrix Spike	Total/NA	SOIL	CHLORIDE E300	3152923_P
690562-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	CHLORIDE E300	3152923_P

Eurofins Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Subcontract

Prep Batch: 3152799_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-258-1	BH01	Total/NA	Solid	SW5035A	
890-258-2	BH01 A	Total/NA	Solid	SW5035A	
890-258-3	BH02	Total/NA	Solid	SW5035A	
890-258-4	BH02 A	Total/NA	Solid	SW5035A	
890-258-5	BH03	Total/NA	Solid	SW5035A	
890-258-6	BH03 A	Total/NA	Solid	SW5035A	
890-258-7	BH04	Total/NA	Solid	SW5035A	
890-258-8	BH04 A	Total/NA	Solid	SW5035A	
7722713-1-BLK	Method Blank	Total/NA	SOIL	SW5035A	
7722713-1-BKS	Lab Control Sample	Total/NA	SOIL	SW5035A	
7722713-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	SW5035A	
690562-001 S	Matrix Spike	Total/NA	SOIL	SW5035A	
690562-001 SD	Matrix Spike Duplicate	Total/NA	SOIL	SW5035A	

Prep Batch: 3152839_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-258-1	BH01	Total/NA	Solid	SW8015P	
890-258-2	BH01 A	Total/NA	Solid	SW8015P	
890-258-3	BH02	Total/NA	Solid	SW8015P	
890-258-4	BH02 A	Total/NA	Solid	SW8015P	
890-258-5	BH03	Total/NA	Solid	SW8015P	
890-258-6	BH03 A	Total/NA	Solid	SW8015P	
890-258-7	BH04	Total/NA	Solid	SW8015P	
890-258-8	BH04 A	Total/NA	Solid	SW8015P	
7722737-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7722737-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7722737-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	

Prep Batch: 3152923_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-258-1	BH01	Total/NA	Solid	E300P	
890-258-2	BH01 A	Total/NA	Solid	E300P	
890-258-3	BH02	Total/NA	Solid	E300P	
890-258-4	BH02 A	Total/NA	Solid	E300P	
890-258-5	BH03	Total/NA	Solid	E300P	
890-258-6	BH03 A	Total/NA	Solid	E300P	
890-258-7	BH04	Total/NA	Solid	E300P	
890-258-8	BH04 A	Total/NA	Solid	E300P	
7722792-1-BLK	Method Blank	Total/NA	SOIL	***DEFAULT PREP***	
7722792-1-BKS	Lab Control Sample	Total/NA	SOIL	***DEFAULT PREP***	
7722792-1-BSD	Lab Control Sample Dup	Total/NA	SOIL	***DEFAULT PREP***	
690562-002 S	Matrix Spike	Total/NA	SOIL	***DEFAULT PREP***	
690562-002 SD	Matrix Spike Duplicate	Total/NA	SOIL	***DEFAULT PREP***	

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Client Sample ID: BH01

Lab Sample ID: 890-258-1

Date Collected: 03/02/21 14:10

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 17:28	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 17:09	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 04:18	ARM	XM

Client Sample ID: BH01 A

Lab Sample ID: 890-258-2

Date Collected: 03/02/21 14:20

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 17:49	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 17:15	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 04:40	ARM	XM

Client Sample ID: BH02

Lab Sample ID: 890-258-3

Date Collected: 03/02/21 14:30

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 18:09	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 17:33	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 05:02	ARM	XM

Client Sample ID: BH02 A

Lab Sample ID: 890-258-4

Date Collected: 03/02/21 14:40

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 18:30	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 17:38	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 05:24	ARM	XM

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Client Sample ID: BH03

Lab Sample ID: 890-258-5

Date Collected: 03/02/21 14:50

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 18:50	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 17:58	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 05:45	ARM	XM

Client Sample ID: BH03 A

Lab Sample ID: 890-258-6

Date Collected: 03/02/21 15:00

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 19:11	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 18:04	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 06:06	ARM	XM

Client Sample ID: BH04

Lab Sample ID: 890-258-7

Date Collected: 03/02/21 15:10

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 19:31	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 18:10	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 06:27	ARM	XM

Client Sample ID: BH04 A

Lab Sample ID: 890-258-8

Date Collected: 03/02/21 15:20

Matrix: Solid

Date Received: 03/04/21 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SW5035A		1	3152799_P	03/06/21 08:30		XM
Total/NA	Analysis	BTEX 8021		1	3152799	03/07/21 19:51	KTL	XM
Total/NA	Prep	E300P		1	3152923_P	03/08/21 13:10		XM
Total/NA	Analysis	CHLORIDE E300		1	3152923	03/08/21 18:16	CHE	XM
Total/NA	Prep	SW8015P		1	3152839_P	03/05/21 17:00		XM
Total/NA	Analysis	TPH 8015_NM_MOD		1	3152839	03/06/21 06:48	ARM	XM

Laboratory References:

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

Eurofins Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Laboratory: Eurofins Midland

The accreditations/certifications listed below are applicable to this report.

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

- 1
- 2
- 3
- 4
- 5
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- 10
- 11
- 12
- 13
- 14

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Method	Method Description	Protocol	Laboratory
Subcontract	BTEX 8021	None	XM
Subcontract	CHLORIDE E300	None	XM
Subcontract	TPH 8015_NM_MOD	None	XM

Protocol References:

None = None

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901 H

Job ID: 890-258-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
890-258-1	BH01	Solid	03/02/21 14:10	03/04/21 15:30	
890-258-2	BH01 A	Solid	03/02/21 14:20	03/04/21 15:30	
890-258-3	BH02	Solid	03/02/21 14:30	03/04/21 15:30	
890-258-4	BH02 A	Solid	03/02/21 14:40	03/04/21 15:30	
890-258-5	BH03	Solid	03/02/21 14:50	03/04/21 15:30	
890-258-6	BH03 A	Solid	03/02/21 15:00	03/04/21 15:30	
890-258-7	BH04	Solid	03/02/21 15:10	03/04/21 15:30	
890-258-8	BH04 A	Solid	03/02/21 15:20	03/04/21 15:30	

Eurofins Carlsbad



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) 794-1295
Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

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Page

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Chain of Custody

Work Order No: _____

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Littell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(303) 887-2946	Email:	Spencer.Lo@wsp.com, Corey.Kennedy@wsp.com, Dan.Moir@wsp.com

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

Project Name:	PLU 15 TWR 901H	Turn Around		ANALYSIS REQUEST	Work Order Notes
Project Number:		Routine	☒		Cost Center: 1665271001
P.O. Number:		Rush:			
Sampler's Name:	Spencer Lo	Due Date:			
SAMPLE RECEIPT	Temp Blank: ☒ No	Wet Ice: ☒ No			
Temperature (°C):	1.2/1.0	Thermometer ID:	1204007		
Received Inact:	☒ Yes ☐ No	Correction Factor:	-0.2		
Cooler Custody Seals:	Yes ☐ No ☒ N/A	Total Containers:			
Sample Custody Seals:	Yes ☐ No ☒ N/A				



890-256 Chain of Custody

TAT starts the day received 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
BH01	S	3/2/2021	1410	2'	1	X	X	X	
BH01A	S	3/2/2021	1420	4'	1	X	X	X	
BH02	S	3/2/2021	1430	2'	1	X	X	X	
BH02A	S	3/2/2021	1440	4'	1	X	X	X	
BH03	S	3/2/2021	1450	2'	1	X	X	X	
BH03A	S	3/2/2021	1500	4'	1	X	X	X	
BH04	S	3/2/2021	1510	2'	1	X	X	X	
BH04A	S	3/2/2021	1520	4'	1	X	X	X	

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

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
		3.4.21 1538			

Revised Date 05/4/18 Rev 2018.1

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-258-1

Login Number: 258

List Source: Eurofins Carlsbad

List Number: 1

Creator: Clifton, Cloe

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1034-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

For:

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

Attn: Dan Moir

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

Authorized for release by:
8/9/2021 3:52:43 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-1034-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Job ID: 890-1034-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-1034-1****Receipt**

The samples were received on 7/30/2021 1:31 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

Method 8021B: Surrogate recovery for the following sample was outside control limits: BH01B (890-1034-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-5988 and analytical batch 880-6001 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: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-5988 and analytical batch 880-6001 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH01B

Lab Sample ID: 890-1034-1

Date Collected: 07/29/21 10:15

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/02/21 09:14	08/02/21 18:47	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/02/21 09:14	08/02/21 18:47	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/02/21 09:14	08/02/21 18:47	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/02/21 09:14	08/02/21 18:47	1
o-Xylene	0.00298		0.00199	mg/Kg		08/02/21 09:14	08/02/21 18:47	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/02/21 09:14	08/02/21 18:47	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		08/02/21 09:14	08/02/21 18:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	08/02/21 09:14	08/02/21 18:47	1
1,4-Difluorobenzene (Surr)	99		70 - 130	08/02/21 09:14	08/02/21 18:47	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 *- *1	50.0	mg/Kg		08/02/21 16:42	08/03/21 12:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 12:43	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 12:43	1
Total TPH	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 12:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	08/02/21 16:42	08/03/21 12:43	1
o-Terphenyl	92		70 - 130	08/02/21 16:42	08/03/21 12:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.6		5.00	mg/Kg			08/05/21 22:09	1

Client Sample ID: BH01C

Lab Sample ID: 890-1034-2

Date Collected: 07/29/21 10:31

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/02/21 09:14	08/02/21 19:08	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/02/21 09:14	08/02/21 19:08	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/02/21 09:14	08/02/21 19:08	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/02/21 09:14	08/02/21 19:08	1
o-Xylene	0.00236		0.00202	mg/Kg		08/02/21 09:14	08/02/21 19:08	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/02/21 09:14	08/02/21 19:08	1
Total BTEX	<0.00403	U	0.00403	mg/Kg		08/02/21 09:14	08/02/21 19:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	08/02/21 09:14	08/02/21 19:08	1
1,4-Difluorobenzene (Surr)	90		70 - 130	08/02/21 09:14	08/02/21 19:08	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH01C

Lab Sample ID: 890-1034-2

Date Collected: 07/29/21 10:31

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 10

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 *- *1	49.9	mg/Kg		08/02/21 16:42	08/03/21 13:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/02/21 16:42	08/03/21 13:45	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/02/21 16:42	08/03/21 13:45	1
Total TPH	<49.9	U	49.9	mg/Kg		08/02/21 16:42	08/03/21 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	08/02/21 16:42	08/03/21 13:45	1
o-Terphenyl	103		70 - 130	08/02/21 16:42	08/03/21 13:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.2		5.04	mg/Kg			08/08/21 12:19	1

Client Sample ID: BH02B

Lab Sample ID: 890-1034-3

Date Collected: 07/29/21 13:00

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 19:29	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 19:29	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 19:29	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/02/21 09:14	08/02/21 19:29	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 19:29	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/02/21 09:14	08/02/21 19:29	1
Total BTEX	<0.00401	U	0.00401	mg/Kg		08/02/21 09:14	08/02/21 19:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	08/02/21 09:14	08/02/21 19:29	1
1,4-Difluorobenzene (Surr)	106		70 - 130	08/02/21 09:14	08/02/21 19:29	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 *- *1	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:06	1
Total TPH	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	08/02/21 16:42	08/03/21 14:06	1
o-Terphenyl	94		70 - 130	08/02/21 16:42	08/03/21 14:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.7		5.01	mg/Kg			08/08/21 12:25	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH02C

Lab Sample ID: 890-1034-4

Date Collected: 07/29/21 13:34

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/02/21 09:14	08/02/21 19:49	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/02/21 09:14	08/02/21 19:49	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/02/21 09:14	08/02/21 19:49	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/02/21 09:14	08/02/21 19:49	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/02/21 09:14	08/02/21 19:49	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/02/21 09:14	08/02/21 19:49	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		08/02/21 09:14	08/02/21 19:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	08/02/21 09:14	08/02/21 19:49	1
1,4-Difluorobenzene (Surr)	96		70 - 130	08/02/21 09:14	08/02/21 19:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *- *1	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:27	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:27	1
Total TPH	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 14:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	08/02/21 16:42	08/03/21 14:27	1
o-Terphenyl	85		70 - 130	08/02/21 16:42	08/03/21 14:27	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.1		4.98	mg/Kg			08/08/21 12:30	1

Client Sample ID: BH09

Lab Sample ID: 890-1034-5

Date Collected: 07/29/21 15:15

Matrix: Solid

Date Received: 07/30/21 13:31

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		08/02/21 09:14	08/02/21 20:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 20:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 20:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/02/21 09:14	08/02/21 20:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 20:10	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/02/21 09:14	08/02/21 20:10	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/02/21 09:14	08/02/21 20:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	08/02/21 09:14	08/02/21 20:10	1
1,4-Difluorobenzene (Surr)	92		70 - 130	08/02/21 09:14	08/02/21 20:10	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH09

Lab Sample ID: 890-1034-5

Date Collected: 07/29/21 15:15

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 2

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *- *1	49.8	mg/Kg		08/02/21 16:42	08/03/21 14:48	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/02/21 16:42	08/03/21 14:48	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/02/21 16:42	08/03/21 14:48	1
Total TPH	<49.8	U	49.8	mg/Kg		08/02/21 16:42	08/03/21 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	08/02/21 16:42	08/03/21 14:48	1
o-Terphenyl	97		70 - 130	08/02/21 16:42	08/03/21 14:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.2		4.95	mg/Kg			08/08/21 12:36	1

Client Sample ID: BH09A

Lab Sample ID: 890-1034-6

Date Collected: 07/29/21 15:22

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:31	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:31	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:31	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/02/21 09:14	08/02/21 20:31	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:31	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/02/21 09:14	08/02/21 20:31	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		08/02/21 09:14	08/02/21 20:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	08/02/21 09:14	08/02/21 20:31	1
1,4-Difluorobenzene (Surr)	121		70 - 130	08/02/21 09:14	08/02/21 20:31	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	<49.7	U *- *1	49.7	mg/Kg		08/02/21 16:42	08/03/21 15:09	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		08/02/21 16:42	08/03/21 15:09	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		08/02/21 16:42	08/03/21 15:09	1
Total TPH	<49.7	U	49.7	mg/Kg		08/02/21 16:42	08/03/21 15:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	08/02/21 16:42	08/03/21 15:09	1
o-Terphenyl	88		70 - 130	08/02/21 16:42	08/03/21 15:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.5		4.95	mg/Kg			08/08/21 12:42	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH09B

Lab Sample ID: 890-1034-7

Date Collected: 07/29/21 15:30

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:51	1
Toluene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:51	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/02/21 09:14	08/02/21 20:51	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/02/21 09:14	08/02/21 20:51	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/02/21 09:14	08/02/21 20:51	1
Total BTEX	<0.00402	U	0.00402	mg/Kg		08/02/21 09:14	08/02/21 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	08/02/21 09:14	08/02/21 20:51	1
1,4-Difluorobenzene (Surr)	95		70 - 130	08/02/21 09:14	08/02/21 20:51	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 *- *1	49.9	mg/Kg		08/02/21 16:42	08/03/21 15:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/02/21 16:42	08/03/21 15:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/02/21 16:42	08/03/21 15:30	1
Total TPH	<49.9	U	49.9	mg/Kg		08/02/21 16:42	08/03/21 15:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	08/02/21 16:42	08/03/21 15:30	1
o-Terphenyl	96		70 - 130	08/02/21 16:42	08/03/21 15:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.5		5.00	mg/Kg			08/08/21 12:47	1

Client Sample ID: BH09C

Lab Sample ID: 890-1034-8

Date Collected: 07/29/21 15:41

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		08/02/21 09:14	08/02/21 21:12	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/02/21 09:14	08/02/21 21:12	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/02/21 09:14	08/02/21 21:12	1
m-Xylene & p-Xylene	<0.00397	U	0.00397	mg/Kg		08/02/21 09:14	08/02/21 21:12	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/02/21 09:14	08/02/21 21:12	1
Xylenes, Total	<0.00397	U	0.00397	mg/Kg		08/02/21 09:14	08/02/21 21:12	1
Total BTEX	<0.00397	U	0.00397	mg/Kg		08/02/21 09:14	08/02/21 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	08/02/21 09:14	08/02/21 21:12	1
1,4-Difluorobenzene (Surr)	94		70 - 130	08/02/21 09:14	08/02/21 21:12	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH09C

Lab Sample ID: 890-1034-8

Date Collected: 07/29/21 15:41

Matrix: Solid

Date Received: 07/30/21 13:31

Sample Depth: - 10

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 *- *1	50.0	mg/Kg		08/02/21 16:42	08/03/21 15:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 15:50	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 15:50	1
Total TPH	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 15:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	08/02/21 16:42	08/03/21 15:50	1
o-Terphenyl	89		70 - 130	08/02/21 16:42	08/03/21 15:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.9		5.04	mg/Kg			08/08/21 12:53	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

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)
880-4551-A-1-A MS	Matrix Spike	108	103
880-4551-A-1-B MSD	Matrix Spike Duplicate	111	100
890-1034-1	BH01B	125	99
890-1034-2	BH01C	125	90
890-1034-3	BH02B	110	106
890-1034-4	BH02C	104	96
890-1034-5	BH09	97	92
890-1034-6	BH09A	128	121
890-1034-7	BH09B	119	95
890-1034-8	BH09C	124	94
LCS 880-5954/1-A	Lab Control Sample	100	97
LCSD 880-5954/2-A	Lab Control Sample Dup	100	94
MB 880-5954/5-A	Method Blank	98	81
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)
890-1034-1	BH01B	91	92
890-1034-1 MS	BH01B	82	74
890-1034-1 MSD	BH01B	78	74
890-1034-2	BH01C	103	103
890-1034-3	BH02B	94	94
890-1034-4	BH02C	85	85
890-1034-5	BH09	96	97
890-1034-6	BH09A	86	88
890-1034-7	BH09B	100	96
890-1034-8	BH09C	87	89
LCS 880-5988/2-A	Lab Control Sample	78	76
LCSD 880-5988/3-A	Lab Control Sample Dup	86	85
MB 880-5988/1-A	Method Blank	79	82
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5954/5-A

Matrix: Solid

Analysis Batch: 5956

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5954

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 13:15	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 13:15	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 13:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/02/21 09:14	08/02/21 13:15	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/02/21 09:14	08/02/21 13:15	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/02/21 09:14	08/02/21 13:15	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/02/21 09:14	08/02/21 13:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	08/02/21 09:14	08/02/21 13:15	1
1,4-Difluorobenzene (Surr)	81		70 - 130	08/02/21 09:14	08/02/21 13:15	1

Lab Sample ID: LCS 880-5954/1-A

Matrix: Solid

Analysis Batch: 5956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1017		mg/Kg		102	70 - 130
Toluene	0.100	0.09896		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09931		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2079		mg/Kg		104	70 - 130
o-Xylene	0.100	0.09453		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-5954/2-A

Matrix: Solid

Analysis Batch: 5956

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5954

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1061		mg/Kg		106	70 - 130	4	35
Toluene	0.100	0.09557		mg/Kg		96	70 - 130	3	35
Ethylbenzene	0.100	0.09272		mg/Kg		93	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1979		mg/Kg		99	70 - 130	5	35
o-Xylene	0.100	0.08978		mg/Kg		90	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 880-4551-A-1-A MS

Matrix: Solid

Analysis Batch: 5956

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 5954

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00200	U	0.101	0.1011		mg/Kg		100	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

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

Lab Sample ID: 880-4551-A-1-A MS

Matrix: Solid

Analysis Batch: 5956

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 5954

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	<0.00200	U	0.101	0.09684		mg/Kg		95	70 - 130
Ethylbenzene	<0.00200	U	0.101	0.09660		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.202	0.1945		mg/Kg		96	70 - 130
o-Xylene	<0.00200	U	0.101	0.09466		mg/Kg		93	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	108		70 - 130						
1,4-Difluorobenzene (Surr)	103		70 - 130						

Lab Sample ID: 880-4551-A-1-B MSD

Matrix: Solid

Analysis Batch: 5956

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 5954

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.1088		mg/Kg		109	70 - 130	7	35
Toluene	<0.00200	U	0.0996	0.1031		mg/Kg		103	70 - 130	6	35
Ethylbenzene	<0.00200	U	0.0996	0.1028		mg/Kg		102	70 - 130	6	35
m-Xylene & p-Xylene	<0.00399	U	0.199	0.2126		mg/Kg		107	70 - 130	9	35
o-Xylene	<0.00200	U	0.0996	0.09977		mg/Kg		99	70 - 130	5	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	111		70 - 130								
1,4-Difluorobenzene (Surr)	100		70 - 130								

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

Lab Sample ID: MB 880-5988/1-A

Matrix: Solid

Analysis Batch: 6001

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5988

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		08/02/21 16:42	08/03/21 11:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 11:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 11:40	1
Total TPH	<50.0	U	50.0	mg/Kg		08/02/21 16:42	08/03/21 11:40	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	79		70 - 130			08/02/21 16:42	08/03/21 11:40	1
o-Terphenyl	82		70 - 130			08/02/21 16:42	08/03/21 11:40	1

Lab Sample ID: LCS 880-5988/2-A

Matrix: Solid

Analysis Batch: 6001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	672.3	*-	mg/Kg		67	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

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

Lab Sample ID: LCS 880-5988/2-A

Matrix: Solid

Analysis Batch: 6001

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5988

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (Over C10-C28)			1000	728.0		mg/Kg		73	70 - 130		
Surrogate	LCS	LCS									
	%Recovery	Qualifier	Limits								
1-Chlorooctane	78		70 - 130								
o-Terphenyl	76		70 - 130								

Lab Sample ID: LCSD 880-5988/3-A

Matrix: Solid

Analysis Batch: 6001

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5988

Top Data: 0001											
Analyte			Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
			Added	Result	Qualifier				Limits		Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1100	*1	mg/Kg		110	70 - 130	48	20
Diesel Range Organics (Over C10-C28)			1000	837.6		mg/Kg		84	70 - 130	14	20
Bottom Data: 0002											
Surrogate	%Recovery	LCSD	LCSD	Limits							
					Qualifier						
1-Chlorooctane	86			70 - 130							
o-Terphenyl	85			70 - 130							

Lab Sample ID: 890-1034-1 MS

Matrix: Solid

Analysis Batch: 6001

Client Sample ID: BH01B

Prep Type: Total/NA

Prep Batch: 5988

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *- *1	996	908.2		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	996	946.9		mg/Kg		93	70 - 130		

Lab Sample ID: 890-1034-1 MSD

Matrix: Solid

Analysis Batch: 6001

Client Sample ID: BH01B

Prep Type: Total/NA

Prep Batch: 5988

Top Data: 0001											
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *- *1	996	909.3		mg/Kg		91	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U	996	938.4		mg/Kg		93	70 - 130	1	20
Bottom Data: 0002											
Surrogate	MSD	MSD	Limits								
	%Recovery	Qualifier									
1-Chlorooctane	78		70 - 130								
o-Terphenyl	74		70 - 130								

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-6022/1-A

Matrix: Solid

Analysis Batch: 6137

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			08/05/21 18:52	1

Lab Sample ID: LCS 880-6022/2-A

Matrix: Solid

Analysis Batch: 6137

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	260.2		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-6022/3-A

Matrix: Solid

Analysis Batch: 6137

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	260.5		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-4551-A-4-D MS

Matrix: Solid

Analysis Batch: 6137

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	22.8		248	294.6		mg/Kg		110	90 - 110

Lab Sample ID: 880-4551-A-4-E MSD

Matrix: Solid

Analysis Batch: 6137

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	22.8		248	284.0		mg/Kg		106	90 - 110	4	20

Lab Sample ID: MB 880-6023/1-A

Matrix: Solid

Analysis Batch: 6138

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			08/08/21 10:05	1

Lab Sample ID: LCS 880-6023/2-A

Matrix: Solid

Analysis Batch: 6138

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	267.1		mg/Kg		107	90 - 110

Lab Sample ID: LCSD 880-6023/3-A

Matrix: Solid

Analysis Batch: 6138

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	267.8		mg/Kg		107	90 - 110	0	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 880-4573-A-7-C MS

Matrix: Solid

Analysis Batch: 6138

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	61.6		253	328.1		mg/Kg		106	90 - 110

Lab Sample ID: 880-4573-A-7-D MSD

Matrix: Solid

Analysis Batch: 6138

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	61.6		253	328.5		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

GC VOA

Prep Batch: 5954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-1	BH01B	Total/NA	Solid	5035	
890-1034-2	BH01C	Total/NA	Solid	5035	
890-1034-3	BH02B	Total/NA	Solid	5035	
890-1034-4	BH02C	Total/NA	Solid	5035	
890-1034-5	BH09	Total/NA	Solid	5035	
890-1034-6	BH09A	Total/NA	Solid	5035	
890-1034-7	BH09B	Total/NA	Solid	5035	
890-1034-8	BH09C	Total/NA	Solid	5035	
MB 880-5954/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5954/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5954/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-4551-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-4551-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 5956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-1	BH01B	Total/NA	Solid	8021B	5954
890-1034-2	BH01C	Total/NA	Solid	8021B	5954
890-1034-3	BH02B	Total/NA	Solid	8021B	5954
890-1034-4	BH02C	Total/NA	Solid	8021B	5954
890-1034-5	BH09	Total/NA	Solid	8021B	5954
890-1034-6	BH09A	Total/NA	Solid	8021B	5954
890-1034-7	BH09B	Total/NA	Solid	8021B	5954
890-1034-8	BH09C	Total/NA	Solid	8021B	5954
MB 880-5954/5-A	Method Blank	Total/NA	Solid	8021B	5954
LCS 880-5954/1-A	Lab Control Sample	Total/NA	Solid	8021B	5954
LCSD 880-5954/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5954
880-4551-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	5954
880-4551-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	5954

GC Semi VOA

Prep Batch: 5988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-1	BH01B	Total/NA	Solid	8015NM Prep	
890-1034-2	BH01C	Total/NA	Solid	8015NM Prep	
890-1034-3	BH02B	Total/NA	Solid	8015NM Prep	
890-1034-4	BH02C	Total/NA	Solid	8015NM Prep	
890-1034-5	BH09	Total/NA	Solid	8015NM Prep	
890-1034-6	BH09A	Total/NA	Solid	8015NM Prep	
890-1034-7	BH09B	Total/NA	Solid	8015NM Prep	
890-1034-8	BH09C	Total/NA	Solid	8015NM Prep	
MB 880-5988/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5988/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5988/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1034-1 MS	BH01B	Total/NA	Solid	8015NM Prep	
890-1034-1 MSD	BH01B	Total/NA	Solid	8015NM Prep	

Analysis Batch: 6001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-1	BH01B	Total/NA	Solid	8015B NM	5988

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

GC Semi VOA (Continued)

Analysis Batch: 6001 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-2	BH01C	Total/NA	Solid	8015B NM	5988
890-1034-3	BH02B	Total/NA	Solid	8015B NM	5988
890-1034-4	BH02C	Total/NA	Solid	8015B NM	5988
890-1034-5	BH09	Total/NA	Solid	8015B NM	5988
890-1034-6	BH09A	Total/NA	Solid	8015B NM	5988
890-1034-7	BH09B	Total/NA	Solid	8015B NM	5988
890-1034-8	BH09C	Total/NA	Solid	8015B NM	5988
MB 880-5988/1-A	Method Blank	Total/NA	Solid	8015B NM	5988
LCS 880-5988/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5988
LCSD 880-5988/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5988
890-1034-1 MS	BH01B	Total/NA	Solid	8015B NM	5988
890-1034-1 MSD	BH01B	Total/NA	Solid	8015B NM	5988

HPLC/IC

Leach Batch: 6022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-1	BH01B	Soluble	Solid	DI Leach	
MB 880-6022/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6022/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6022/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-4551-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
880-4551-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 6023

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-2	BH01C	Soluble	Solid	DI Leach	
890-1034-3	BH02B	Soluble	Solid	DI Leach	
890-1034-4	BH02C	Soluble	Solid	DI Leach	
890-1034-5	BH09	Soluble	Solid	DI Leach	
890-1034-6	BH09A	Soluble	Solid	DI Leach	
890-1034-7	BH09B	Soluble	Solid	DI Leach	
890-1034-8	BH09C	Soluble	Solid	DI Leach	
MB 880-6023/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6023/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6023/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-4573-A-7-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-4573-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 6137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-1	BH01B	Soluble	Solid	300.0	6022
MB 880-6022/1-A	Method Blank	Soluble	Solid	300.0	6022
LCS 880-6022/2-A	Lab Control Sample	Soluble	Solid	300.0	6022
LCSD 880-6022/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6022
880-4551-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	6022
880-4551-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	6022

Analysis Batch: 6138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-2	BH01C	Soluble	Solid	300.0	6023

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

HPLC/IC (Continued)

Analysis Batch: 6138 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1034-3	BH02B	Soluble	Solid	300.0	6023
890-1034-4	BH02C	Soluble	Solid	300.0	6023
890-1034-5	BH09	Soluble	Solid	300.0	6023
890-1034-6	BH09A	Soluble	Solid	300.0	6023
890-1034-7	BH09B	Soluble	Solid	300.0	6023
890-1034-8	BH09C	Soluble	Solid	300.0	6023
MB 880-6023/1-A	Method Blank	Soluble	Solid	300.0	6023
LCS 880-6023/2-A	Lab Control Sample	Soluble	Solid	300.0	6023
LCSD 880-6023/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6023
880-4573-A-7-C MS	Matrix Spike	Soluble	Solid	300.0	6023
880-4573-A-7-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	6023

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH01B**Lab Sample ID: 890-1034-1****Date Collected: 07/29/21 10:15****Matrix: Solid****Date Received: 07/30/21 13:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 18:47	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 12:43	AJ	XEN MID
Soluble	Leach	DI Leach			6022	08/03/21 15:28	CH	XEN MID
Soluble	Analysis	300.0		1	6137	08/05/21 22:09	CH	XEN MID

Client Sample ID: BH01C**Lab Sample ID: 890-1034-2****Date Collected: 07/29/21 10:31****Matrix: Solid****Date Received: 07/30/21 13:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 19:08	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 13:45	AJ	XEN MID
Soluble	Leach	DI Leach			6023	08/03/21 15:33	CH	XEN MID
Soluble	Analysis	300.0		1	6138	08/08/21 12:19	CH	XEN MID

Client Sample ID: BH02B**Lab Sample ID: 890-1034-3****Date Collected: 07/29/21 13:00****Matrix: Solid****Date Received: 07/30/21 13:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 19:29	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 14:06	AJ	XEN MID
Soluble	Leach	DI Leach			6023	08/03/21 15:33	CH	XEN MID
Soluble	Analysis	300.0		1	6138	08/08/21 12:25	CH	XEN MID

Client Sample ID: BH02C**Lab Sample ID: 890-1034-4****Date Collected: 07/29/21 13:34****Matrix: Solid****Date Received: 07/30/21 13:31**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 19:49	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 14:27	AJ	XEN MID
Soluble	Leach	DI Leach			6023	08/03/21 15:33	CH	XEN MID
Soluble	Analysis	300.0		1	6138	08/08/21 12:30	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Client Sample ID: BH09

Lab Sample ID: 890-1034-5

Date Collected: 07/29/21 15:15

Matrix: Solid

Date Received: 07/30/21 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 20:10	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 14:48	AJ	XEN MID
Soluble	Leach	DI Leach			6023	08/03/21 15:33	CH	XEN MID
Soluble	Analysis	300.0		1	6138	08/08/21 12:36	CH	XEN MID

Client Sample ID: BH09A

Lab Sample ID: 890-1034-6

Date Collected: 07/29/21 15:22

Matrix: Solid

Date Received: 07/30/21 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 20:31	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 15:09	AJ	XEN MID
Soluble	Leach	DI Leach			6023	08/03/21 15:33	CH	XEN MID
Soluble	Analysis	300.0		1	6138	08/08/21 12:42	CH	XEN MID

Client Sample ID: BH09B

Lab Sample ID: 890-1034-7

Date Collected: 07/29/21 15:30

Matrix: Solid

Date Received: 07/30/21 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 20:51	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 15:30	AJ	XEN MID
Soluble	Leach	DI Leach			6023	08/03/21 15:33	CH	XEN MID
Soluble	Analysis	300.0		1	6138	08/08/21 12:47	CH	XEN MID

Client Sample ID: BH09C

Lab Sample ID: 890-1034-8

Date Collected: 07/29/21 15:41

Matrix: Solid

Date Received: 07/30/21 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5954	08/02/21 09:14	KL	XEN MID
Total/NA	Analysis	8021B		1	5956	08/02/21 21:12	KL	XEN MID
Total/NA	Prep	8015NM Prep			5988	08/02/21 16:42	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6001	08/03/21 15:50	AJ	XEN MID
Soluble	Leach	DI Leach			6023	08/03/21 15:33	CH	XEN MID
Soluble	Analysis	300.0		1	6138	08/08/21 12:53	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1034-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1034-1	BH01B	Solid	07/29/21 10:15	07/30/21 13:31	- 8
890-1034-2	BH01C	Solid	07/29/21 10:31	07/30/21 13:31	- 10
890-1034-3	BH02B	Solid	07/29/21 13:00	07/30/21 13:31	- 8
890-1034-4	BH02C	Solid	07/29/21 13:34	07/30/21 13:31	- 12
890-1034-5	BH09	Solid	07/29/21 15:15	07/30/21 13:31	- 2
890-1034-6	BH09A	Solid	07/29/21 15:22	07/30/21 13:31	- 4
890-1034-7	BH09B	Solid	07/29/21 15:30	07/30/21 13:31	- 8
890-1034-8	BH09C	Solid	07/29/21 15:41	07/30/21 13:31	- 10



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 291-3922
Hobbs, NM (575-392-7550)

Chain of Custody

Work Order No:

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

Work Order Comments									
Program: UST/PST		☐ RP	☐ growfields	☐ RC	☐ \$perfund	☐			
State of Project:									
Reporting Level II		☐ level III	☐ ST/UST	☐ RP	☒ level IV	☐			
Deliverables: EDD		☐	Adapt	☐	Other:				

Project Name:	PLU 15 TWR 901H	Turn Around	ANALYSIS REQUEST							Work Order Notes
Project Number:	TE012921027	Routine ☒								Cost Center : 1665271001
P.O. Number:		Rush:								Incident # NAPP2102235706
Sampler's Name:	Elliot Lee	Due Date:								

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	16.5-8	Thermometer ID					
Received Intact:	(Yes) No	IDM-003					
Cooler Custody Seats:	Yes No	N/A		Correction Factor:		-0.2	
Sample Custody Seats:	Yes No	N/A		Total Containers:			

Number of Containers

PA 8015)

EPA 0=8021)

le (EPA 300.0)



890-1034 Chain of Custody

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

[illegible]

Total	200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO2	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6040: 8RCRA		Sb	As	Ba	Be	Ed	Cr	Co	Ga	Pb	Mn	Mo	Ni	Se	Ag	Hi	U															
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 \$750.00 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.																																	
1631 / 245-17470-7471 Hg																																	

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7.30.21 1331			



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

Chain of Custody

Work Order No: _____

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Page 1 of 1

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

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

Project Name:	PLU 15 TWR 901H	Turn Around	ANALYSIS REQUEST		Work Order Notes
Project Number:	TE012921027	Routine ☒			Cost Center : 1665271001 Incident # NAPP2102235706
P.O. Number:		Rush:			
Sampler's Name:	Elliott Lee	Due Date:			

SAMPLE RECEIPT Temperature (°C): 60/5.8 Received Intact: (Yes) No Cooler Custody Seals: Yes No N/A Sample Custody Seals: Yes No N/A Total Containers: 10	Temp Blank:	Yes	No	Wet Ice:	Yes	No
	Thermometer ID: TBM-003					
	Correction Factor: -0.2					

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	ANALYSIS REQUEST										Sample Comments
BH01B	S	7/29/2021	10:15	8'	1	X	X	X									DISCRETE		
BH01C	S	7/29/2021	10:31	10'	1	X	X	X									DISCRETE		
BH02B	S	7/29/2021	13:00	8'	1	X	X	X									DISCRETE		
BH02C	S	7/29/2021	13:34	12'	1	X	X	X									DISCRETE		
BH09	S	7/29/2021	15:15	2'	1	X	X	X									DISCRETE		
BH09A	S	7/29/2021	15:22	4'	1	X	X	X									DISCRETE		
BH09B	S	7/29/2021	15:30	8'	1	X	X	X									DISCRETE		
BH09C	S	7/29/2021	15:41	10'	1	X	X	X									DISCRETE		

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

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

16341245.17747017471.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 \$7500 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 <i>[Signature]</i>	2 <i>[Signature]</i>	7:30:21 1331	3 <i>[Signature]</i>	4 <i>[Signature]</i>	
5 <i>[Signature]</i>	6 <i>[Signature]</i>				

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	Carrier Tracking No(s)	COC No:
Client Contact:				Phone:	E-Mail:	State of Origin	890-328 1
Shipping/Receiving				Jessica Kramer@eurofinset.com		New Mexico	Page 1 of 1
Company:				Eurofins Xenco		Job #:	
Address				1211 W Florida Ave,		890-1034-1	
City				Midland		Preservation Codes:	
State, Zip:				TX, 79701		A HCL	
Phone:				432-704-5440(Tel)		B NaOH	
Email:				WFO #		C Zn Acetate	
Project Name:				PLU 15 TWR 901H		D Nitric Acid	
Site:				SSOW#:		E NaHSO4	
Project #:				89000004		F MeOH	
Sample Identification - Client ID (Lab ID)				Sample Date		G Amchlor	
Sample Time				Sample Type (C=Comp, G=grab)		H Ascorbic Acid	
Sample Matrix (W=water, S=solid, O=wastefl, BT=Tissue, A=All)				Field Filtered Sample (Yes or No)		I Ice	
Perform MS/MSD (Yes or No)				8015MOD_NM/8015NM_S_Prep Full TPH		J DI Water	
800_ORGFM_28D/DI_LEACH Chloride				8021B/5035FP_Calc BTEX		K EDTA	
8021B/5035FP_Calc BTEX				Total Number of containers		L ED4	
Special Instructions/Note.				Total Number of containers		M Hexane	
BH01B (890-1034-1)				7/29/21		N None	
BH01C (890-1034-2)				7/29/21		O AsNaO2	
BH02B (890-1034-3)				7/29/21		P Na2O4S	
BH02C (890-1034-4)				7/29/21		Q Na2SO3	
BH09 (890-1034-5)				7/29/21		R Na2S2O3	
BH09A (890-1034-6)				7/29/21		S H2SO4	
BH09B (890-1034-7)				7/29/21		T TSP Dodecalydrate	
BH09C (890-1034-8)				7/29/21		U Acetone	
Note: Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted 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/assessments/matrix being analyzed, the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Xenco LLC						V MCAA	
Possible Hazard Identification						W pH 4-5	
Unconfirmed						Z other (specify)	
Deliverable Requested I II III, IV, Other (specify)				Primary Deliverable Rank 2		Other	
Empty Kit Relinquished by				Date		Other	
Relinquished by				Date/Time		Other	
Relinquished by				Date/Time		Other	
Relinquished by				Date/Time		Other	
Custody Seals Intact				Custody Seal No		Other	
Cooler Temperature(s) °C and Other Remarks						Other	

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1034-1

SDG Number: TE012921027

Login Number: 1034

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: 890-1034-1

SDG Number: TE012921027

Login Number: 1034

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland

List Creation: 08/02/21 09:02 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1023-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

Revision: 1

For:

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

Attn: Dan Moir

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

Authorized for release by:
2/1/2022 8:29:47 AM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-1023-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Job ID: 890-1023-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-1023-1

Comments

No additional comments.

Receipt

The samples were received on 7/29/2021 8:34 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 was 4.0° C.

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Client Sample ID: BH04B

Lab Sample ID: 890-1023-1

Date Collected: 07/27/21 09:50

Matrix: Solid

Date Received: 07/29/21 08:34

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.56		0.198	mg/Kg		08/01/21 12:00	08/02/21 00:17	100
Toluene	16.7		0.198	mg/Kg		08/01/21 12:00	08/02/21 00:17	100
Ethylbenzene	2.41		0.198	mg/Kg		08/01/21 12:00	08/02/21 00:17	100
m-Xylene & p-Xylene	24.0		0.396	mg/Kg		08/01/21 12:00	08/02/21 00:17	100
o-Xylene	5.47		0.198	mg/Kg		08/01/21 12:00	08/02/21 00:17	100
Xylenes, Total	29.5		0.396	mg/Kg		08/01/21 12:00	08/02/21 00:17	100
Total BTEX	50.1		0.396	mg/Kg		08/01/21 12:00	08/02/21 00:17	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	08/01/21 12:00	08/02/21 00:17	100
1,4-Difluorobenzene (Surr)	96		70 - 130	08/01/21 12:00	08/02/21 00:17	100

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	2150		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:30	1
Diesel Range Organics (Over C10-C28)	2230		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:30	1
Oil Range Organics (Over C28-C36)	261		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:30	1
Total TPH	4640		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	07/31/21 10:49	08/01/21 19:30	1
o-Terphenyl	101		70 - 130	07/31/21 10:49	08/01/21 19:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3360		24.9	mg/Kg			08/02/21 21:23	5

Client Sample ID: BH04C

Lab Sample ID: 890-1023-2

Date Collected: 07/27/21 10:15

Matrix: Solid

Date Received: 07/29/21 08:34

Sample Depth: - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.94		0.199	mg/Kg		08/01/21 12:00	08/02/21 00:37	100
Toluene	12.6		0.199	mg/Kg		08/01/21 12:00	08/02/21 00:37	100
Ethylbenzene	1.82		0.199	mg/Kg		08/01/21 12:00	08/02/21 00:37	100
m-Xylene & p-Xylene	16.7		0.398	mg/Kg		08/01/21 12:00	08/02/21 00:37	100
o-Xylene	3.87		0.199	mg/Kg		08/01/21 12:00	08/02/21 00:37	100
Xylenes, Total	20.6		0.398	mg/Kg		08/01/21 12:00	08/02/21 00:37	100
Total BTEX	36.9		0.398	mg/Kg		08/01/21 12:00	08/02/21 00:37	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	08/01/21 12:00	08/02/21 00:37	100
1,4-Difluorobenzene (Surr)	0	S1-	70 - 130	07/30/21 10:15	07/31/21 11:05	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Client Sample ID: BH04C

Lab Sample ID: 890-1023-2

Date Collected: 07/27/21 10:15

Matrix: Solid

Date Received: 07/29/21 08:34

Sample Depth: - 12

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1210		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:51	1
Diesel Range Organics (Over C10-C28)	1150		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:51	1
Oil Range Organics (Over C28-C36)	142		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:51	1
Total TPH	2500		49.9	mg/Kg		07/31/21 10:49	08/01/21 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130	07/31/21 10:49	08/01/21 19:51	1
o-Terphenyl	125		70 - 130	07/31/21 10:49	08/01/21 19:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	533		4.97	mg/Kg			08/02/21 21:28	1

Client Sample ID: BH04D

Lab Sample ID: 890-1023-3

Date Collected: 07/27/21 12:20

Matrix: Solid

Date Received: 07/29/21 08:34

Sample Depth: - 20

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.199	U	0.199	mg/Kg		08/01/21 12:00	08/02/21 00:58	100
Toluene	2.18		0.199	mg/Kg		08/01/21 12:00	08/02/21 00:58	100
Ethylbenzene	0.377		0.199	mg/Kg		08/01/21 12:00	08/02/21 00:58	100
m-Xylene & p-Xylene	3.39		0.398	mg/Kg		08/01/21 12:00	08/02/21 00:58	100
o-Xylene	0.815		0.199	mg/Kg		08/01/21 12:00	08/02/21 00:58	100
Xylenes, Total	4.21		0.398	mg/Kg		08/01/21 12:00	08/02/21 00:58	100
Total BTEX	6.76		0.398	mg/Kg		08/01/21 12:00	08/02/21 00:58	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	08/01/21 12:00	08/02/21 00:58	100
1,4-Difluorobenzene (Surr)	95		70 - 130	08/01/21 12:00	08/02/21 00:58	100

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	366		49.8	mg/Kg		07/30/21 14:36	07/31/21 15:10	1
Diesel Range Organics (Over C10-C28)	330		49.8	mg/Kg		07/30/21 14:36	07/31/21 15:10	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/30/21 14:36	07/31/21 15:10	1
Total TPH	696		49.8	mg/Kg		07/30/21 14:36	07/31/21 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	07/30/21 14:36	07/31/21 15:10	1
o-Terphenyl	109		70 - 130	07/30/21 14:36	07/31/21 15:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	196		5.04	mg/Kg			08/02/21 21:34	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Client Sample ID: BH03C

Lab Sample ID: 890-1023-4

Date Collected: 07/27/21 13:55

Matrix: Solid

Date Received: 07/29/21 08:34

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0883		0.00202	mg/Kg		07/30/21 10:15	07/31/21 11:46	1
Toluene	0.347		0.00202	mg/Kg		07/30/21 10:15	07/31/21 11:46	1
Ethylbenzene	0.0468		0.00202	mg/Kg		07/30/21 10:15	07/31/21 11:46	1
m-Xylene & p-Xylene	0.413		0.00404	mg/Kg		07/30/21 10:15	07/31/21 11:46	1
o-Xylene	0.115		0.00202	mg/Kg		07/30/21 10:15	07/31/21 11:46	1
Xylenes, Total	0.528		0.00404	mg/Kg		07/30/21 10:15	07/31/21 11:46	1
Total BTEX	1.01		0.00404	mg/Kg		07/30/21 10:15	07/31/21 11:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	07/30/21 10:15	07/31/21 11:46	1
1,4-Difluorobenzene (Surr)	110		70 - 130	07/30/21 10:15	07/31/21 11:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7	mg/Kg		07/30/21 14:36	07/31/21 15:31	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7	mg/Kg		07/30/21 14:36	07/31/21 15:31	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7	mg/Kg		07/30/21 14:36	07/31/21 15:31	1
Total TPH	<49.7	U	49.7	mg/Kg		07/30/21 14:36	07/31/21 15:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	07/30/21 14:36	07/31/21 15:31	1
o-Terphenyl	113		70 - 130	07/30/21 14:36	07/31/21 15:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		4.98	mg/Kg			08/02/21 21:39	1

Client Sample ID: BH03D

Lab Sample ID: 890-1023-5

Date Collected: 07/27/21 14:28

Matrix: Solid

Date Received: 07/29/21 08:34

Sample Depth: - 10

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/30/21 10:15	07/31/21 12:07	1
Toluene	0.0117		0.00200	mg/Kg		07/30/21 10:15	07/31/21 12:07	1
Ethylbenzene	0.00276		0.00200	mg/Kg		07/30/21 10:15	07/31/21 12:07	1
m-Xylene & p-Xylene	0.0217		0.00401	mg/Kg		07/30/21 10:15	07/31/21 12:07	1
o-Xylene	0.0146		0.00200	mg/Kg		07/30/21 10:15	07/31/21 12:07	1
Xylenes, Total	0.0363		0.00401	mg/Kg		07/30/21 10:15	07/31/21 12:07	1
Total BTEX	0.0508		0.00401	mg/Kg		07/30/21 10:15	07/31/21 12:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	07/30/21 10:15	07/31/21 12:07	1
1,4-Difluorobenzene (Surr)	99		70 - 130	07/30/21 10:15	07/31/21 12:07	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Client Sample ID: BH03D

Lab Sample ID: 890-1023-5

Date Collected: 07/27/21 14:28

Matrix: Solid

Date Received: 07/29/21 08:34

Sample Depth: - 10

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		07/30/21 14:36	07/31/21 15:52	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/30/21 14:36	07/31/21 15:52	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/30/21 14:36	07/31/21 15:52	1
Total TPH	<49.9	U	49.9	mg/Kg		07/30/21 14:36	07/31/21 15:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	07/30/21 14:36	07/31/21 15:52	1
o-Terphenyl	117		70 - 130	07/30/21 14:36	07/31/21 15:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U	4.96	mg/Kg			08/02/21 21:45	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-1023-1	BH04B	126	96
890-1023-2	BH04C	121	
890-1023-2	BH04C		0 S1-
890-1023-3	BH04D	105	95
890-1023-4	BH03C	127	110
890-1023-5	BH03D	97	99
LCS 880-5826/1-A	Lab Control Sample	97	96
LCS 880-5901/1-A	Lab Control Sample	103	99
LCSD 880-5826/2-A	Lab Control Sample Dup	107	93
LCSD 880-5901/2-A	Lab Control Sample Dup	100	101
MB 880-5820/5-A	Method Blank	104	89
MB 880-5826/5-A	Method Blank	99	98
MB 880-5900/5-A	Method Blank	111	86
MB 880-5901/5-A	Method Blank	100	87
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)
890-1023-1	BH04B	114	101
890-1023-2	BH04C	123	125
890-1023-3	BH04D	104	109
890-1023-4	BH03C	107	113
890-1023-5	BH03D	110	117
LCS 880-5902/2-A	Lab Control Sample	93	94
LCS 880-5924/2-A	Lab Control Sample	100	107
LCSD 880-5902/3-A	Lab Control Sample Dup	100	99
LCSD 880-5924/3-A	Lab Control Sample Dup	108	115
MB 880-5902/1-A	Method Blank	94	104
MB 880-5924/1-A	Method Blank	92	111
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5820/5-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5820

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:15	07/30/21 14:37	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:15	07/30/21 14:37	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:15	07/30/21 14:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/30/21 08:15	07/30/21 14:37	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:15	07/30/21 14:37	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/30/21 08:15	07/30/21 14:37	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/30/21 08:15	07/30/21 14:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	07/30/21 08:15	07/30/21 14:37	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/30/21 08:15	07/30/21 14:37	1

Lab Sample ID: MB 880-5826/5-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5826

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:00	07/31/21 05:53	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:00	07/31/21 05:53	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:00	07/31/21 05:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/30/21 08:00	07/31/21 05:53	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/30/21 08:00	07/31/21 05:53	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/30/21 08:00	07/31/21 05:53	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/30/21 08:00	07/31/21 05:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	07/30/21 08:00	07/31/21 05:53	1
1,4-Difluorobenzene (Surr)	98		70 - 130	07/30/21 08:00	07/31/21 05:53	1

Lab Sample ID: LCS 880-5826/1-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5826

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09841		mg/Kg		98	70 - 130
Toluene	0.100	0.09002		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.08341		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	0.200	0.1794		mg/Kg		90	70 - 130
o-Xylene	0.100	0.08817		mg/Kg		88	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

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

Lab Sample ID: LCSD 880-5826/2-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5826

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1058		mg/Kg		106	70 - 130	7	35
Toluene	0.100	0.1037		mg/Kg		104	70 - 130	14	35
Ethylbenzene	0.100	0.1001		mg/Kg		100	70 - 130	18	35
m-Xylene & p-Xylene	0.200	0.1974		mg/Kg		99	70 - 130	10	35
o-Xylene	0.100	0.09554		mg/Kg		96	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: MB 880-5900/5-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5900

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/30/21 15:15	08/01/21 03:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/30/21 15:15	08/01/21 03:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/30/21 15:15	08/01/21 03:52	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/30/21 15:15	08/01/21 03:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/30/21 15:15	08/01/21 03:52	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/30/21 15:15	08/01/21 03:52	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/30/21 15:15	08/01/21 03:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	07/30/21 15:15	08/01/21 03:52	1
1,4-Difluorobenzene (Surr)	86		70 - 130	07/30/21 15:15	08/01/21 03:52	1

Lab Sample ID: MB 880-5901/5-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5901

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/01/21 12:00	08/01/21 21:30	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/01/21 12:00	08/01/21 21:30	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/01/21 12:00	08/01/21 21:30	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/01/21 12:00	08/01/21 21:30	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/01/21 12:00	08/01/21 21:30	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/01/21 12:00	08/01/21 21:30	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/01/21 12:00	08/01/21 21:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	08/01/21 12:00	08/01/21 21:30	1
1,4-Difluorobenzene (Surr)	87		70 - 130	08/01/21 12:00	08/01/21 21:30	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

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

Lab Sample ID: LCS 880-5901/1-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1050		mg/Kg		105	70 - 130
Toluene	0.100	0.1115		mg/Kg		112	70 - 130
Ethylbenzene	0.100	0.1006		mg/Kg		101	70 - 130
m-Xylene & p-Xylene	0.200	0.2064		mg/Kg		103	70 - 130
o-Xylene	0.100	0.09387		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-5901/2-A

Matrix: Solid

Analysis Batch: 5862

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5901

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1185		mg/Kg		118	70 - 130	12	35
Toluene	0.100	0.1083		mg/Kg		108	70 - 130	3	35
Ethylbenzene	0.100	0.1007		mg/Kg		101	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2131		mg/Kg		107	70 - 130	3	35
o-Xylene	0.100	0.09997		mg/Kg		100	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

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

Lab Sample ID: MB 880-5902/1-A

Matrix: Solid

Analysis Batch: 5917

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5902

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		07/30/21 14:36	07/31/21 12:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/30/21 14:36	07/31/21 12:00	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/30/21 14:36	07/31/21 12:00	1
Total TPH	<50.0	U	50.0	mg/Kg		07/30/21 14:36	07/31/21 12:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	07/30/21 14:36	07/31/21 12:00	1
o-Terphenyl	104		70 - 130	07/30/21 14:36	07/31/21 12:00	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

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

Lab Sample ID: LCS 880-5902/2-A

Matrix: Solid

Analysis Batch: 5917

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	802.8		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	1000	892.5		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	93		70 - 130				
o-Terphenyl	94		70 - 130				

Lab Sample ID: LCSD 880-5902/3-A

Matrix: Solid

Analysis Batch: 5917

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5902

Top Bottom											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	868.9		mg/Kg		87	70 - 130	8	20
Diesel Range Organics (Over C10-C28)			1000	973.1		mg/Kg		97	70 - 130	9	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	99		70 - 130								

Lab Sample ID: MB 880-5924/1-A

Matrix: Solid

Analysis Batch: 5934

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5924

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/31/21 10:49	08/01/21 13:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/31/21 10:49	08/01/21 13:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/31/21 10:49	08/01/21 13:13	1
Total TPH	<50.0	U	50.0	mg/Kg		07/31/21 10:49	08/01/21 13:13	1
Surrogate	MB	MB	Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
1-Chlorooctane	92		70 - 130			07/31/21 10:49	08/01/21 13:13	1
o-Terphenyl	111		70 - 130			07/31/21 10:49	08/01/21 13:13	1

Lab Sample ID: LCS 880-5924/2-A

Matrix: Solid

Analysis Batch: 5934

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5924

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	975.2		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1070		mg/Kg		107	70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

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

Lab Sample ID: LCS 880-5924/2-A

Matrix: Solid

Analysis Batch: 5934

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5924

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-5924/3-A

Matrix: Solid

Analysis Batch: 5934

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5924

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	915.4		mg/Kg		92	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	1119		mg/Kg		112	70 - 130	5	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	108		70 - 130
o-Terphenyl	115		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5869/1-A

Matrix: Solid

Analysis Batch: 5990

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			08/02/21 19:00	1

Lab Sample ID: LCS 880-5869/2-A

Matrix: Solid

Analysis Batch: 5990

Client Sample ID: Lab Control Sample

Prep Type: Soluble

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

Lab Sample ID: LCSD 880-5869/3-A

Matrix: Solid

Analysis Batch: 5990

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	256.4		mg/Kg		103	90 - 110	0	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

GC VOA

Prep Batch: 5820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-5820/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 5826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-2	BH04C	Total/NA	Solid	5035	
890-1023-4	BH03C	Total/NA	Solid	5035	
890-1023-5	BH03D	Total/NA	Solid	5035	
MB 880-5826/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5826/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5826/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 5862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-1	BH04B	Total/NA	Solid	8021B	5901
890-1023-2	BH04C	Total/NA	Solid	8021B	5826
890-1023-2	BH04C	Total/NA	Solid	8021B	5901
890-1023-3	BH04D	Total/NA	Solid	8021B	5901
890-1023-4	BH03C	Total/NA	Solid	8021B	5826
890-1023-5	BH03D	Total/NA	Solid	8021B	5826
MB 880-5820/5-A	Method Blank	Total/NA	Solid	8021B	5820
MB 880-5826/5-A	Method Blank	Total/NA	Solid	8021B	5826
MB 880-5900/5-A	Method Blank	Total/NA	Solid	8021B	5900
MB 880-5901/5-A	Method Blank	Total/NA	Solid	8021B	5901
LCS 880-5826/1-A	Lab Control Sample	Total/NA	Solid	8021B	5826
LCS 880-5901/1-A	Lab Control Sample	Total/NA	Solid	8021B	5901
LCSD 880-5826/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5826
LCSD 880-5901/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5901

Prep Batch: 5900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-5900/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 5901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-1	BH04B	Total/NA	Solid	5035	
890-1023-2	BH04C	Total/NA	Solid	5035	
890-1023-3	BH04D	Total/NA	Solid	5035	
MB 880-5901/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5901/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5901/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

GC Semi VOA

Prep Batch: 5902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-3	BH04D	Total/NA	Solid	8015NM Prep	
890-1023-4	BH03C	Total/NA	Solid	8015NM Prep	
890-1023-5	BH03D	Total/NA	Solid	8015NM Prep	
MB 880-5902/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5902/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

GC Semi VOA

Analysis Batch: 5917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-3	BH04D	Total/NA	Solid	8015B NM	5902
890-1023-4	BH03C	Total/NA	Solid	8015B NM	5902
890-1023-5	BH03D	Total/NA	Solid	8015B NM	5902
MB 880-5902/1-A	Method Blank	Total/NA	Solid	8015B NM	5902
LCS 880-5902/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5902
LCSD 880-5902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5902

Prep Batch: 5924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-1	BH04B	Total/NA	Solid	8015NM Prep	
890-1023-2	BH04C	Total/NA	Solid	8015NM Prep	
MB 880-5924/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5924/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 5934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-1	BH04B	Total/NA	Solid	8015B NM	5924
890-1023-2	BH04C	Total/NA	Solid	8015B NM	5924
MB 880-5924/1-A	Method Blank	Total/NA	Solid	8015B NM	5924
LCS 880-5924/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5924
LCSD 880-5924/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5924

HPLC/IC

Leach Batch: 5869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-1	BH04B	Soluble	Solid	DI Leach	
890-1023-2	BH04C	Soluble	Solid	DI Leach	
890-1023-3	BH04D	Soluble	Solid	DI Leach	
890-1023-4	BH03C	Soluble	Solid	DI Leach	
890-1023-5	BH03D	Soluble	Solid	DI Leach	
MB 880-5869/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5869/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5869/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 5990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1023-1	BH04B	Soluble	Solid	300.0	5869
890-1023-2	BH04C	Soluble	Solid	300.0	5869
890-1023-3	BH04D	Soluble	Solid	300.0	5869
890-1023-4	BH03C	Soluble	Solid	300.0	5869
890-1023-5	BH03D	Soluble	Solid	300.0	5869
MB 880-5869/1-A	Method Blank	Soluble	Solid	300.0	5869
LCS 880-5869/2-A	Lab Control Sample	Soluble	Solid	300.0	5869
LCSD 880-5869/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5869

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Client Sample ID: BH04B

Lab Sample ID: 890-1023-1

Date Collected: 07/27/21 09:50

Matrix: Solid

Date Received: 07/29/21 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5901	08/01/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		100	5862	08/02/21 00:17	KL	XEN MID
Total/NA	Prep	8015NM Prep			5924	07/31/21 10:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5934	08/01/21 19:30	AJ	XEN MID
Soluble	Leach	DI Leach			5869	07/30/21 10:34	CH	XEN MID
Soluble	Analysis	300.0		5	5990	08/02/21 21:23	CH	XEN MID

Client Sample ID: BH04C

Lab Sample ID: 890-1023-2

Date Collected: 07/27/21 10:15

Matrix: Solid

Date Received: 07/29/21 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5826	07/30/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5862	07/31/21 11:05	KL	XEN MID
Total/NA	Prep	5035			5901	08/01/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		100	5862	08/02/21 00:37	KL	XEN MID
Total/NA	Prep	8015NM Prep			5924	07/31/21 10:49	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5934	08/01/21 19:51	AJ	XEN MID
Soluble	Leach	DI Leach			5869	07/30/21 10:34	CH	XEN MID
Soluble	Analysis	300.0		1	5990	08/02/21 21:28	CH	XEN MID

Client Sample ID: BH04D

Lab Sample ID: 890-1023-3

Date Collected: 07/27/21 12:20

Matrix: Solid

Date Received: 07/29/21 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5901	08/01/21 12:00	KL	XEN MID
Total/NA	Analysis	8021B		100	5862	08/02/21 00:58	KL	XEN MID
Total/NA	Prep	8015NM Prep			5902	07/30/21 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5917	07/31/21 15:10	AJ	XEN MID
Soluble	Leach	DI Leach			5869	07/30/21 10:34	CH	XEN MID
Soluble	Analysis	300.0		1	5990	08/02/21 21:34	CH	XEN MID

Client Sample ID: BH03C

Lab Sample ID: 890-1023-4

Date Collected: 07/27/21 13:55

Matrix: Solid

Date Received: 07/29/21 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5826	07/30/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5862	07/31/21 11:46	KL	XEN MID
Total/NA	Prep	8015NM Prep			5902	07/30/21 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5917	07/31/21 15:31	AJ	XEN MID
Soluble	Leach	DI Leach			5869	07/30/21 10:34	CH	XEN MID
Soluble	Analysis	300.0		1	5990	08/02/21 21:39	CH	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Client Sample ID: BH03D Lab Sample ID: 890-1023-5
Date Collected: 07/27/21 14:28 Matrix: Solid
Date Received: 07/29/21 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5826	07/30/21 10:15	KL	XEN MID
Total/NA	Analysis	8021B		1	5862	07/31/21 12:07	KL	XEN MID
Total/NA	Prep	8015NM Prep			5902	07/30/21 14:36	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5917	07/31/21 15:52	AJ	XEN MID
Soluble	Leach	DI Leach			5869	07/30/21 10:34	CH	XEN MID
Soluble	Analysis	300.0		1	5990	08/02/21 21:45	CH	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Laboratory: Eurofins 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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1023-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1023-1	BH04B	Solid	07/27/21 09:50	07/29/21 08:34	- 8
890-1023-2	BH04C	Solid	07/27/21 10:15	07/29/21 08:34	- 12
890-1023-3	BH04D	Solid	07/27/21 12:20	07/29/21 08:34	- 20
890-1023-4	BH03C	Solid	07/27/21 13:55	07/29/21 08:34	- 8
890-1023-5	BH03D	Solid	07/27/21 14:28	07/29/21 08:34	- 10



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0350 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (602) 382-7550 Atlanta, GA (770) 449-8800 Tampa, FL (813) 233-3827
Hobbs, NM (575) 382-7550

Chain of Custody

Work Order No:

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	WSP Permian office	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, Tx 79705	City, State ZIP:	Carlsbad, NM, 88220
Phone:	(432) 256-3849	Email:	Elliot.Lee@wsp.com, Kalel.Jennings@wsp.com

Work Order Comments			
Program: UST/PST	☐ RP	☐ Growfields	☐ RC ☐ Fundfund
State of Project:			
Reporting Level II	☐ Level III	☐ F/UST	☐ RP ☐ Level IV
Deliverables: EDD	☐	ADAPT	☐ Other:

Project Name:	PLU 15 TWR 901H	Turn Around	ANALYSIS REQUEST					Work Order Notes
Project Number:	TE012921027	Routine ☐						Cost Center : 1665271001
P.O. Number:		Rush: <i>3 Day</i>						Incident # NAPP2102235706
Sampler's Name:	Elliot Lee	Due Date:						
								

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	4-2/40		Thermometer ID	
Received Intact:	(Yes) No		TW-007	
Cooler Custody Seals:	Yes (No)	N/A	Correction Factor:	
Sample Custody Seals:	Yes (No)	N/A	Total Containers:	

Number of Containers

EPA 8015)

EPA 0=8021)

le (EPA 300.0)

890-1023 Chain of Custody

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

[illegible]

Circle Method(s) and Metal(s) to be analyzed	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 SiO ₂ Na Sr Ii Sn U V Zn	
TC1P / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg

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 <i>[Signature]</i>	<i>[Signature]</i>	7-29-21 0830			
2 <i>[Signature]</i>					
3 <i>[Signature]</i>					
4 <i>[Signature]</i>					
5 <i>[Signature]</i>					

Revised Date 05/14/18 Rev. 2018

Eurofins Xenco, Carlsbad

1089 N Canal St

Carlsbad, NM 88220

Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing
America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1023-1

SDG Number: TE012921027

Login Number: 1023**List Number: 1****Creator: Clifton, Cloe****List Source: Eurofins Carlsbad**

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1023-1

SDG Number: TE012921027

Login Number: 1023**List Number: 2****Creator: Kramer, Jessica****List Source: Eurofins Midland****List Creation: 07/30/21 10:49 AM**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1040-1
Laboratory Sample Delivery Group: TE012921027
Client Project/Site: PLU 15 TWR 901H

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

Attn: Dan Moir

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

Authorized for release by:
8/9/2021 3:47:48 PM

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

LINKS

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-1040-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

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.
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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	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: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Job ID: 890-1040-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

**Job Narrative
890-1040-1****Receipt**

The samples were received on 8/3/2021 2:12 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 5.6°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Client Sample ID: BH10

Lab Sample ID: 890-1040-1

Date Collected: 08/03/21 10:20

Matrix: Solid

Date Received: 08/03/21 14:12

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		08/04/21 09:26	08/04/21 15:25	1
Toluene	<0.00198	U	0.00198	mg/Kg		08/04/21 09:26	08/04/21 15:25	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/04/21 09:26	08/04/21 15:25	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		08/04/21 09:26	08/04/21 15:25	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		08/04/21 09:26	08/04/21 15:25	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		08/04/21 09:26	08/04/21 15:25	1
Total BTEX	<0.00396	U	0.00396	mg/Kg		08/04/21 09:26	08/04/21 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	08/04/21 09:26	08/04/21 15:25	1
1,4-Difluorobenzene (Surr)	95		70 - 130	08/04/21 09:26	08/04/21 15:25	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		08/04/21 10:04	08/04/21 17:21	1
Diesel Range Organics (Over C10-C28)	55.4		49.9	mg/Kg		08/04/21 10:04	08/04/21 17:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/21 10:04	08/04/21 17:21	1
Total TPH	55.4		49.9	mg/Kg		08/04/21 10:04	08/04/21 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	08/04/21 10:04	08/04/21 17:21	1
o-Terphenyl	106		70 - 130	08/04/21 10:04	08/04/21 17:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.7		4.97	mg/Kg			08/08/21 17:22	1

Client Sample ID: BH10A

Lab Sample ID: 890-1040-2

Date Collected: 08/03/21 10:45

Matrix: Solid

Date Received: 08/03/21 14:12

Sample Depth: - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00556		0.00200	mg/Kg		08/04/21 09:26	08/04/21 15:46	1
Toluene	0.00769		0.00200	mg/Kg		08/04/21 09:26	08/04/21 15:46	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/04/21 09:26	08/04/21 15:46	1
m-Xylene & p-Xylene	0.00563		0.00400	mg/Kg		08/04/21 09:26	08/04/21 15:46	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/04/21 09:26	08/04/21 15:46	1
Xylenes, Total	0.00563		0.00400	mg/Kg		08/04/21 09:26	08/04/21 15:46	1
Total BTEX	0.0189		0.00400	mg/Kg		08/04/21 09:26	08/04/21 15:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	08/04/21 09:26	08/04/21 15:46	1
1,4-Difluorobenzene (Surr)	102		70 - 130	08/04/21 09:26	08/04/21 15:46	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Client Sample ID: BH10A

Lab Sample ID: 890-1040-2

Date Collected: 08/03/21 10:45

Matrix: Solid

Date Received: 08/03/21 14:12

Sample Depth: - 12

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		08/04/21 10:04	08/04/21 17:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/04/21 10:04	08/04/21 17:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/04/21 10:04	08/04/21 17:42	1
Total TPH	<49.9	U	49.9	mg/Kg		08/04/21 10:04	08/04/21 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	08/04/21 10:04	08/04/21 17:42	1
o-Terphenyl	111		70 - 130	08/04/21 10:04	08/04/21 17:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11.3		4.96	mg/Kg			08/08/21 17:28	1

Client Sample ID: BH10B

Lab Sample ID: 890-1040-3

Date Collected: 08/03/21 11:11

Matrix: Solid

Date Received: 08/03/21 14:12

Sample Depth: - 17

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00474		0.00198	mg/Kg		08/04/21 09:26	08/04/21 16:06	1
Toluene	0.00866		0.00198	mg/Kg		08/04/21 09:26	08/04/21 16:06	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		08/04/21 09:26	08/04/21 16:06	1
m-Xylene & p-Xylene	0.00757		0.00397	mg/Kg		08/04/21 09:26	08/04/21 16:06	1
o-Xylene	0.00221		0.00198	mg/Kg		08/04/21 09:26	08/04/21 16:06	1
Xylenes, Total	0.00978		0.00397	mg/Kg		08/04/21 09:26	08/04/21 16:06	1
Total BTEX	0.0232		0.00397	mg/Kg		08/04/21 09:26	08/04/21 16:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	08/04/21 09:26	08/04/21 16:06	1
1,4-Difluorobenzene (Surr)	103		70 - 130	08/04/21 09:26	08/04/21 16:06	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		08/04/21 10:04	08/04/21 18:03	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/04/21 10:04	08/04/21 18:03	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/04/21 10:04	08/04/21 18:03	1
Total TPH	<49.8	U	49.8	mg/Kg		08/04/21 10:04	08/04/21 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	08/04/21 10:04	08/04/21 18:03	1
o-Terphenyl	115		70 - 130	08/04/21 10:04	08/04/21 18:03	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.2		5.05	mg/Kg			08/08/21 17:44	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

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)
820-1521-A-1-A MS	Matrix Spike	109	106
820-1521-A-1-B MSD	Matrix Spike Duplicate	113	104
890-1040-1	BH10	109	95
890-1040-2	BH10A	105	102
890-1040-3	BH10B	113	103
LCS 880-6041/1-A	Lab Control Sample	111	107
LCS 880-6060/1-A	Lab Control Sample	102	106
LCSD 880-6041/2-A	Lab Control Sample Dup	106	102
LCSD 880-6060/2-A	Lab Control Sample Dup	103	107
MB 880-6041/5-A	Method Blank	121	92
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
890-1037-A-1-B MSD	Matrix Spike Duplicate		
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)
890-1036-A-1-E MS	Matrix Spike	99	92
890-1036-A-1-F MSD	Matrix Spike Duplicate	112	102
890-1040-1	BH10	100	106
890-1040-2	BH10A	104	111
890-1040-3	BH10B	107	115
LCS 880-6050/2-A	Lab Control Sample	105	106
LCSD 880-6050/3-A	Lab Control Sample Dup	109	109
MB 880-6050/1-A	Method Blank	95	101
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-6041/5-A

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6041

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/04/21 09:26	08/04/21 14:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/04/21 09:26	08/04/21 14:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/04/21 09:26	08/04/21 14:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/04/21 09:26	08/04/21 14:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/04/21 09:26	08/04/21 14:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/04/21 09:26	08/04/21 14:03	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/04/21 09:26	08/04/21 14:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	08/04/21 09:26	08/04/21 14:03	1
1,4-Difluorobenzene (Surr)	92		70 - 130	08/04/21 09:26	08/04/21 14:03	1

Lab Sample ID: LCS 880-6041/1-A

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6041

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09937		mg/Kg		99	70 - 130
Toluene	0.100	0.09318		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09306		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	0.200	0.1921		mg/Kg		96	70 - 130
o-Xylene	0.100	0.09454		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-6041/2-A

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6041

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09705		mg/Kg		97	70 - 130	2	35
Toluene	0.100	0.08977		mg/Kg		90	70 - 130	4	35
Ethylbenzene	0.100	0.09071		mg/Kg		91	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1855		mg/Kg		93	70 - 130	3	35
o-Xylene	0.100	0.09167		mg/Kg		92	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-1037-A-1-B MSD

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.08597		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

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

Lab Sample ID: 890-1037-A-1-B MSD

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6041

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	<0.00199	U	0.0998	0.08303		mg/Kg					
Ethylbenzene	<0.00199	U	0.0998	0.08500		mg/Kg					
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1776		mg/Kg					
o-Xylene	<0.00199	U	0.0998	0.08812		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

Lab Sample ID: LCS 880-6060/1-A

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6060

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09827		mg/Kg		98	70 - 130
Toluene	0.100	0.09069		mg/Kg		91	70 - 130
Ethylbenzene	0.100	0.08800		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1776		mg/Kg		89	70 - 130
o-Xylene	0.100	0.08941		mg/Kg		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Lab Sample ID: LCSD 880-6060/2-A

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6060

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09781		mg/Kg		98	70 - 130	0	35
Toluene	0.100	0.09064		mg/Kg		91	70 - 130	0	35
Ethylbenzene	0.100	0.08880		mg/Kg		89	70 - 130	1	35
m-Xylene & p-Xylene	0.200	0.1803		mg/Kg		90	70 - 130	2	35
o-Xylene	0.100	0.09056		mg/Kg		91	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: 820-1521-A-1-A MS

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 6060

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.0996	0.08751		mg/Kg		87	70 - 130
Toluene	<0.00199	U	0.0996	0.07975		mg/Kg		80	70 - 130
Ethylbenzene	<0.00199	U	0.0996	0.07736		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1559		mg/Kg		78	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

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

Lab Sample ID: 820-1521-A-1-A MS

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 6060

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	<0.00199	U	0.0996	0.07918		mg/Kg		79	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	109		70 - 130						
1,4-Difluorobenzene (Surr)	106		70 - 130						

Lab Sample ID: 820-1521-A-1-B MSD

Matrix: Solid

Analysis Batch: 6043

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6060

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.09196		mg/Kg		92	70 - 130	5	35
Toluene	<0.00199	U	0.0998	0.08686		mg/Kg		87	70 - 130	9	35
Ethylbenzene	<0.00199	U	0.0998	0.08447		mg/Kg		85	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1718		mg/Kg		86	70 - 130	10	35
o-Xylene	<0.00199	U	0.0998	0.08687		mg/Kg		87	70 - 130	9	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	113		70 - 130								
1,4-Difluorobenzene (Surr)	104		70 - 130								

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

Lab Sample ID: MB 880-6050/1-A

Matrix: Solid

Analysis Batch: 6039

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6050

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		08/04/21 10:04	08/04/21 11:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/04/21 10:04	08/04/21 11:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/04/21 10:04	08/04/21 11:06	1
Total TPH	<50.0	U	50.0	mg/Kg		08/04/21 10:04	08/04/21 11:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
1-Chlorooctane	95		70 - 130	08/04/21 10:04	08/04/21 11:06	1		
o-Terphenyl	101		70 - 130	08/04/21 10:04	08/04/21 11:06	1		

Lab Sample ID: LCS 880-6050/2-A

Matrix: Solid

Analysis Batch: 6039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	796.0		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1047		mg/Kg		105	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

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

Lab Sample ID: LCS 880-6050/2-A

Matrix: Solid

Analysis Batch: 6039

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6050

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	106		70 - 130

Lab Sample ID: LCSD 880-6050/3-A

Matrix: Solid

Analysis Batch: 6039

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6050

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	870.2		mg/Kg		87	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	1000	1060		mg/Kg		106	70 - 130	1	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	109		70 - 130

Lab Sample ID: 890-1036-A-1-E MS

Matrix: Solid

Analysis Batch: 6039

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 6050

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	1275		mg/Kg		123	70 - 130		
Diesel Range Organics (Over C10-C28)	84.2	F1	995	1247		mg/Kg		117	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: 890-1036-A-1-F MSD

Matrix: Solid

Analysis Batch: 6039

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6050

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	998	1235		mg/Kg		119	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	84.2	F1	998	1409	F1	mg/Kg		133	70 - 130	12	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	102		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-6110/1-A

Matrix: Solid

Analysis Batch: 6195

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			08/08/21 16:37	1

Lab Sample ID: LCS 880-6110/2-A

Matrix: Solid

Analysis Batch: 6195

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	269.6		mg/Kg		108	90 - 110

Lab Sample ID: LCSD 880-6110/3-A

Matrix: Solid

Analysis Batch: 6195

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	269.9		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 890-1041-A-5-D MS

Matrix: Solid

Analysis Batch: 6195

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	155		250	422.5		mg/Kg		107	90 - 110

Lab Sample ID: 890-1041-A-5-E MSD

Matrix: Solid

Analysis Batch: 6195

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	155		250	422.3		mg/Kg		107	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

GC VOA

Prep Batch: 6041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1040-1	BH10	Total/NA	Solid	5035	
890-1040-2	BH10A	Total/NA	Solid	5035	
890-1040-3	BH10B	Total/NA	Solid	5035	
MB 880-6041/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6041/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6041/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1037-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 6043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1040-1	BH10	Total/NA	Solid	8021B	6041
890-1040-2	BH10A	Total/NA	Solid	8021B	6041
890-1040-3	BH10B	Total/NA	Solid	8021B	6041
MB 880-6041/5-A	Method Blank	Total/NA	Solid	8021B	6041
LCS 880-6041/1-A	Lab Control Sample	Total/NA	Solid	8021B	6041
LCS 880-6060/1-A	Lab Control Sample	Total/NA	Solid	8021B	6060
LCSD 880-6041/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6041
LCSD 880-6060/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6060
820-1521-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	6060
820-1521-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	6060
890-1037-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	6041

Prep Batch: 6060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-6060/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6060/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
820-1521-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
820-1521-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 6039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1040-1	BH10	Total/NA	Solid	8015B NM	6050
890-1040-2	BH10A	Total/NA	Solid	8015B NM	6050
890-1040-3	BH10B	Total/NA	Solid	8015B NM	6050
MB 880-6050/1-A	Method Blank	Total/NA	Solid	8015B NM	6050
LCS 880-6050/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6050
LCSD 880-6050/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6050
890-1036-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	6050
890-1036-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6050

Prep Batch: 6050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1040-1	BH10	Total/NA	Solid	8015NM Prep	
890-1040-2	BH10A	Total/NA	Solid	8015NM Prep	
890-1040-3	BH10B	Total/NA	Solid	8015NM Prep	
MB 880-6050/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6050/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6050/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1036-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

GC Semi VOA (Continued)

Prep Batch: 6050 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1036-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 6110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1040-1	BH10	Soluble	Solid	DI Leach	
890-1040-2	BH10A	Soluble	Solid	DI Leach	
890-1040-3	BH10B	Soluble	Solid	DI Leach	
MB 880-6110/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6110/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6110/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1041-A-5-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1041-A-5-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 6195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1040-1	BH10	Soluble	Solid	300.0	6110
890-1040-2	BH10A	Soluble	Solid	300.0	6110
890-1040-3	BH10B	Soluble	Solid	300.0	6110
MB 880-6110/1-A	Method Blank	Soluble	Solid	300.0	6110
LCS 880-6110/2-A	Lab Control Sample	Soluble	Solid	300.0	6110
LCSD 880-6110/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6110
890-1041-A-5-D MS	Matrix Spike	Soluble	Solid	300.0	6110
890-1041-A-5-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	6110

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Client Sample ID: BH10

Lab Sample ID: 890-1040-1

Date Collected: 08/03/21 10:20

Matrix: Solid

Date Received: 08/03/21 14:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6041	08/04/21 09:26	KL	XEN MID
Total/NA	Analysis	8021B		1	6043	08/04/21 15:25	KL	XEN MID
Total/NA	Prep	8015NM Prep			6050	08/04/21 10:04	AM	XEN MID
Total/NA	Analysis	8015B NM		1	6039	08/04/21 17:21	AJ	XEN MID
Soluble	Leach	DI Leach			6110	08/05/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	6195	08/08/21 17:22	CH	XEN MID

Client Sample ID: BH10A

Lab Sample ID: 890-1040-2

Date Collected: 08/03/21 10:45

Matrix: Solid

Date Received: 08/03/21 14:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6041	08/04/21 09:26	KL	XEN MID
Total/NA	Analysis	8021B		1	6043	08/04/21 15:46	KL	XEN MID
Total/NA	Prep	8015NM Prep			6050	08/04/21 10:04	AM	XEN MID
Total/NA	Analysis	8015B NM		1	6039	08/04/21 17:42	AJ	XEN MID
Soluble	Leach	DI Leach			6110	08/05/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	6195	08/08/21 17:28	CH	XEN MID

Client Sample ID: BH10B

Lab Sample ID: 890-1040-3

Date Collected: 08/03/21 11:11

Matrix: Solid

Date Received: 08/03/21 14:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6041	08/04/21 09:26	KL	XEN MID
Total/NA	Analysis	8021B		1	6043	08/04/21 16:06	KL	XEN MID
Total/NA	Prep	8015NM Prep			6050	08/04/21 10:04	AM	XEN MID
Total/NA	Analysis	8015B NM		1	6039	08/04/21 18:03	AJ	XEN MID
Soluble	Leach	DI Leach			6110	08/05/21 10:56	CH	XEN MID
Soluble	Analysis	300.0		1	6195	08/08/21 17:44	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1040-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1040-1	BH10	Solid	08/03/21 10:20	08/03/21 14:12	- 2
890-1040-2	BH10A	Solid	08/03/21 10:45	08/03/21 14:12	- 12
890-1040-3	BH10B	Solid	08/03/21 11:11	08/03/21 14:12	- 17

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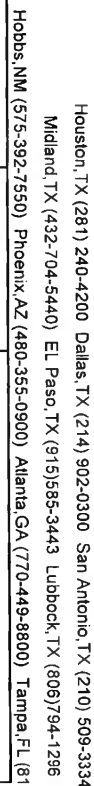
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Chain of Custody

Work Order No:

Page 1 of 1

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

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

[illegible]

Total 200.7 / 6010 200.8 / 6020:		Circle Method(s) and Metal(s) to be analyzed		8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn	
8RCRA 13PLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		TCLP / SPLP 6010:		1694+245-173470-77471-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 		8.3.21/4/12	3		
3			4		
5			6		

Revised Date 05/11/18 Rev 2018

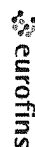
Eurofins Xenco, Carlsbad

1089 N Canal St.

Carlsbad NM 88220

Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record



Environment Testing America

Client Information (Sub Contract Lab)				Lab PM	Carrier Tracking No(s)	COC No:
Client Contact:				Kramer, Jessica		890-331 1
Shipping/Receiving				E-Mail: jessica.kramer@eurofinsnet.com	State of Origin: New Mexico	Page 1 of 1
Company: Eurofins Xenco				Accreditations Required (See note)		Job #:
Address: 1211 W Florida Ave				NE LAP - Louisiana, NE LAP - Texas		890-1040-1
City: Midland				Due Date Requested: 8/9/2021		
State Zip: TX, 79701				TAT Requested (days):		
Phone: 432-704-5440(Tel)				PO #:		
Email:				WO #:		
Project Name: PLU 15 TWR 901H				Project #: 89000004		
Site:				SSOW#:		
Sample Identification - Client ID (Lab ID)				Sample Date		
PH10 (890-1040-1)				8/3/21		
PH10A (890-1040-2)				8/3/21		
PH10B (890-1040-3)				8/3/21		
Sample Type (C=Comp, G=grab)				Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)		
Sample Time				Field Filtered Sample (Yes or No)		
Preservation Code:				Perform MS/MSD (Yes or No)		
				8015MOD_NM/8015NM_S_Prep Full TPH		
				300_ORGFMM_28D/DI_LEACH Chloride		
				8021B/5035FP_Calc BTEX		
				Total Number of containers		
				Special Instructions/Note.		
				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 Dodecylaltrate		
				I. Ice U. Acetone		
				J. DI Water V. MCAA		
				K. EDTA W. pH 4-5		
				L. EDA Z. other (specify)		
				Other:		

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1040-1

SDG Number: TE012921027

Login Number: 1040

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: 890-1040-1

SDG Number: TE012921027

Login Number: 1040

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland

List Creation: 08/04/21 11:24 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-969-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

For:

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

Attn: Dan Moir

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

Authorized for release by:
7/29/2021 8:30:26 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-969-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	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: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Job ID: 890-969-1

Laboratory: Eurofins Xenco, Carlsbad**Narrative****Job Narrative
890-969-1****Comments**

No additional comments.

Receipt

The sample was received on 7/22/2021 9:08 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.4° C.

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Client Sample ID: BH03B

Lab Sample ID: 890-969-1

Date Collected: 07/20/21 16:05

Matrix: Solid

Date Received: 07/22/21 09:08

Sample Depth: - 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/23/21 11:06	07/24/21 01:54	1
Toluene	0.00887		0.00201	mg/Kg		07/23/21 11:06	07/24/21 01:54	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/23/21 11:06	07/24/21 01:54	1
m-Xylene & p-Xylene	0.00577		0.00402	mg/Kg		07/23/21 11:06	07/24/21 01:54	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/23/21 11:06	07/24/21 01:54	1
Xylenes, Total	0.00577		0.00402	mg/Kg		07/23/21 11:06	07/24/21 01:54	1
Total BTEX	0.0146		0.00402	mg/Kg		07/23/21 11:06	07/24/21 01:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	07/23/21 11:06	07/24/21 01:54	1
1,4-Difluorobenzene (Surr)	86		70 - 130	07/23/21 11:06	07/24/21 01:54	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		07/28/21 13:48	07/29/21 10:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/28/21 13:48	07/29/21 10:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/28/21 13:48	07/29/21 10:35	1
Total TPH	<50.0	U	50.0	mg/Kg		07/28/21 13:48	07/29/21 10:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130	07/28/21 13:48	07/29/21 10:35	1
o-Terphenyl	88		70 - 130	07/28/21 13:48	07/29/21 10:35	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.2		5.00	mg/Kg			07/26/21 10:47	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-969-1	BH03B	95	86
LCS 880-5584/1-A	Lab Control Sample	117	101
LCSD 880-5584/2-A	Lab Control Sample Dup	122	98
MB 880-5584/5-A	Method Blank	86	81

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)
890-969-1	BH03B	78	88

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5584/5-A

Matrix: Solid

Analysis Batch: 5586

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5584

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/23/21 11:06	07/23/21 16:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	07/23/21 11:06	07/23/21 16:14	1
1,4-Difluorobenzene (Surr)	81		70 - 130	07/23/21 11:06	07/23/21 16:14	1

Lab Sample ID: LCS 880-5584/1-A

Matrix: Solid

Analysis Batch: 5586

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5584

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1190		mg/Kg		119	70 - 130
Toluene	0.100	0.1171		mg/Kg		117	70 - 130
Ethylbenzene	0.100	0.1285		mg/Kg		129	70 - 130
m-Xylene & p-Xylene	0.200	0.2272		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1133		mg/Kg		113	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-5584/2-A

Matrix: Solid

Analysis Batch: 5586

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5584

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1142		mg/Kg		114	70 - 130	4	35
Toluene	0.100	0.1042		mg/Kg		104	70 - 130	12	35
Ethylbenzene	0.100	0.1211		mg/Kg		121	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2118		mg/Kg		106	70 - 130	7	35
o-Xylene	0.100	0.1049		mg/Kg		105	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5598/1-A

Matrix: Solid

Analysis Batch: 5628

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			07/26/21 08:54	1

Lab Sample ID: LCS 880-5598/2-A

Matrix: Solid

Analysis Batch: 5628

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	251.7		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-5598/3-A

Matrix: Solid

Analysis Batch: 5628

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	251.6		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

GC VOA

Prep Batch: 5584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-969-1	BH03B	Total/NA	Solid	5035	
MB 880-5584/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5584/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5584/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 5586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-969-1	BH03B	Total/NA	Solid	8021B	5584
MB 880-5584/5-A	Method Blank	Total/NA	Solid	8021B	5584
LCS 880-5584/1-A	Lab Control Sample	Total/NA	Solid	8021B	5584
LCSD 880-5584/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5584

GC Semi VOA

Analysis Batch: 5739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-969-1	BH03B	Total/NA	Solid	8015B NM	5757

Prep Batch: 5757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-969-1	BH03B	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 5598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-969-1	BH03B	Soluble	Solid	DI Leach	
MB 880-5598/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5598/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5598/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 5628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-969-1	BH03B	Soluble	Solid	300.0	5598
MB 880-5598/1-A	Method Blank	Soluble	Solid	300.0	5598
LCS 880-5598/2-A	Lab Control Sample	Soluble	Solid	300.0	5598
LCSD 880-5598/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5598

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Client Sample ID: BH03B Lab Sample ID: 890-969-1
Date Collected: 07/20/21 16:05 Matrix: Solid
Date Received: 07/22/21 09:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5584	07/23/21 11:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5586	07/24/21 01:54	KL	XEN MID
Total/NA	Prep	8015NM Prep			5757	07/28/21 13:48	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5739	07/29/21 10:35	AJ	XEN MID
Soluble	Leach	DI Leach			5598	07/23/21 13:45	SC	XEN MID
Soluble	Analysis	300.0		1	5628	07/26/21 10:47	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.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-969-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-969-1	BH03B	Solid	07/20/21 16:05	07/22/21 09:08	- 6

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1396
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 233-3927
Hobbs, NM (575-392-7550)

www.xenco.com Page 1 of 1

Chain of Custody

Work Order No:

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

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

Project Name:	PLU 15 TWR 901H	Turn Around
Project Number:	TE012921027	Routine ☒
P.O. Number:		Rush:
Sampler's Name:	Elliott Lee	Due Date:

SAMPLE RECEIPT	Temp Blank:	No	Wet Ice:	Yes	No
Temperature (°C):	2.6 / 2.4			☒	
Received In tact:	Yes No		Thermometer ID		
Cooler Custody Seals:	Yes ☒ No		Correction Factor:		
Sample Custody Seals:	Yes No	N/A	Total Containers:		

Analysis Request		Work Order Notes
Number of Containers		
EPA 8015)		
EPA 0=8021)		
de (EPA 300.0)		
 890-969 Chain of Custody		
		Cost Center : 1665271001
		Incident # NAPP2102235706
		TAT starts the day received by the lab, if received by 4:30pm

[illegible]

Circle Method(s) and Metal(s) to be analyzed	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 SiO ₂ Na Sr Ti Sn U V Zn		
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7474 / Hg

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

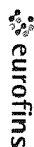
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/22/2002			7-22-21 09P

Revised Date 05/14/18 Rev. 2018.

Eurofins Aeneco, Carispaad

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

Chain of Custody Record



Environment Testing
| America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-969-1

SDG Number: TE012921027

Login Number: 969

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: 890-969-1

SDG Number: TE012921027

Login Number: 969

List Number: 2

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

List Creation: 07/23/21 10:57 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-576-1

Laboratory Sample Delivery Group: TE01921027

Client Project/Site: PLU 15 TWR 901H

For:

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

Attn: Dan Moir

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

Authorized for release by:
4/29/2021 9:04:53 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-576-1
SDG: TE01921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Qualifiers

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

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

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Job ID: 890-576-1**Laboratory: Eurofins Xenco, Carlsbad****Narrative****Job Narrative
890-576-1****Receipt**

The samples were received on 4/26/2021 4:48 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 1.4°C

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH07 A (890-576-5) and BH08 (890-576-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following samples were outside control limits: BH06 A (890-576-3) and BH07 (890-576-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Client Sample ID: BH05

Lab Sample ID: 890-576-1

Date Collected: 04/26/21 10:00

Matrix: Solid

Date Received: 04/26/21 16:48

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		04/28/21 14:55	04/29/21 15:35	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/28/21 14:55	04/29/21 15:35	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/28/21 14:55	04/29/21 15:35	1
m-Xylene & p-Xylene	0.00708		0.00398	mg/Kg		04/28/21 14:55	04/29/21 15:35	1
o-Xylene	0.0201		0.00199	mg/Kg		04/28/21 14:55	04/29/21 15:35	1
Xylenes, Total	0.0272		0.00398	mg/Kg		04/28/21 14:55	04/29/21 15:35	1
Total BTEX	0.0272		0.00398	mg/Kg		04/28/21 14:55	04/29/21 15:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	04/28/21 14:55	04/29/21 15:35	1
1,4-Difluorobenzene (Surr)	99		70 - 130	04/28/21 14:55	04/29/21 15:35	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 ** *1	50.0	mg/Kg		04/27/21 10:20	04/28/21 15:34	1
Diesel Range Organics (Over C10-C28)	571		50.0	mg/Kg		04/27/21 10:20	04/28/21 15:34	1
Oil Range Organics (Over C28-C36)	61.2		50.0	mg/Kg		04/27/21 10:20	04/28/21 15:34	1
Total TPH	632		50.0	mg/Kg		04/27/21 10:20	04/28/21 15:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130	04/27/21 10:20	04/28/21 15:34	1
o-Terphenyl	99		70 - 130	04/27/21 10:20	04/28/21 15:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	718		5.05	mg/Kg			04/27/21 20:14	1

Client Sample ID: BH06

Lab Sample ID: 890-576-2

Date Collected: 04/26/21 10:20

Matrix: Solid

Date Received: 04/26/21 16:48

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		04/28/21 14:55	04/29/21 15:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 15:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 15:56	1
m-Xylene & p-Xylene	0.00748		0.00400	mg/Kg		04/28/21 14:55	04/29/21 15:56	1
o-Xylene	0.0234		0.00200	mg/Kg		04/28/21 14:55	04/29/21 15:56	1
Xylenes, Total	0.0309		0.00400	mg/Kg		04/28/21 14:55	04/29/21 15:56	1
Total BTEX	0.0309		0.00400	mg/Kg		04/28/21 14:55	04/29/21 15:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	04/28/21 14:55	04/29/21 15:56	1
1,4-Difluorobenzene (Surr)	100		70 - 130	04/28/21 14:55	04/29/21 15:56	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Client Sample ID: BH06

Lab Sample ID: 890-576-2

Date Collected: 04/26/21 10:20

Matrix: Solid

Date Received: 04/26/21 16:48

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	<49.9	U ** *1	49.9	mg/Kg		04/27/21 10:20	04/28/21 19:46	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/27/21 10:20	04/28/21 19:46	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/27/21 10:20	04/28/21 19:46	1
Total TPH	<49.9	U	49.9	mg/Kg		04/27/21 10:20	04/28/21 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130	04/27/21 10:20	04/28/21 19:46	1
o-Terphenyl	120		70 - 130	04/27/21 10:20	04/28/21 19:46	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	727		4.97	mg/Kg			04/27/21 20:33	1

Client Sample ID: BH06 A

Lab Sample ID: 890-576-3

Date Collected: 04/26/21 12:30

Matrix: Solid

Date Received: 04/26/21 16:48

Sample Depth: - 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 16:53	1
Toluene	0.0314		0.00200	mg/Kg		04/28/21 14:55	04/29/21 16:53	1
Ethylbenzene	0.0759		0.00200	mg/Kg		04/28/21 14:55	04/29/21 16:53	1
m-Xylene & p-Xylene	0.725		0.00399	mg/Kg		04/28/21 14:55	04/29/21 16:53	1
o-Xylene	0.301		0.00200	mg/Kg		04/28/21 14:55	04/29/21 16:53	1
Xylenes, Total	1.03		0.00399	mg/Kg		04/28/21 14:55	04/29/21 16:53	1
Total BTEX	1.13		0.00399	mg/Kg		04/28/21 14:55	04/29/21 16:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	252	S1+	70 - 130	04/28/21 14:55	04/29/21 16:53	1
1,4-Difluorobenzene (Surr)	86		70 - 130	04/28/21 14:55	04/29/21 16:53	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	438	** *1	49.9	mg/Kg		04/27/21 10:20	04/28/21 20:28	1
Diesel Range Organics (Over C10-C28)	1740		49.9	mg/Kg		04/27/21 10:20	04/28/21 20:28	1
Oil Range Organics (Over C28-C36)	196		49.9	mg/Kg		04/27/21 10:20	04/28/21 20:28	1
Total TPH	2370		49.9	mg/Kg		04/27/21 10:20	04/28/21 20:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130	04/27/21 10:20	04/28/21 20:28	1
o-Terphenyl	105		70 - 130	04/27/21 10:20	04/28/21 20:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4200		24.9	mg/Kg			04/27/21 20:38	5

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Client Sample ID: BH07

Lab Sample ID: 890-576-4

Date Collected: 04/26/21 10:40

Matrix: Solid

Date Received: 04/26/21 16:48

Sample Depth: - 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		04/28/21 14:55	04/29/21 17:13	1
Toluene	0.00266		0.00202	mg/Kg		04/28/21 14:55	04/29/21 17:13	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/28/21 14:55	04/29/21 17:13	1
m-Xylene & p-Xylene	0.00521		0.00404	mg/Kg		04/28/21 14:55	04/29/21 17:13	1
o-Xylene	0.00968		0.00202	mg/Kg		04/28/21 14:55	04/29/21 17:13	1
Xylenes, Total	0.0149		0.00404	mg/Kg		04/28/21 14:55	04/29/21 17:13	1
Total BTEX	0.0176		0.00404	mg/Kg		04/28/21 14:55	04/29/21 17:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			04/28/21 14:55	04/29/21 17:13	1
1,4-Difluorobenzene (Surr)	90		70 - 130			04/28/21 14:55	04/29/21 17:13	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 ** *1	50.0	mg/Kg		04/27/21 10:20	04/28/21 16:37	1
Diesel Range Organics (Over C10-C28)	728		50.0	mg/Kg		04/27/21 10:20	04/28/21 16:37	1
Oil Range Organics (Over C28-C36)	77.1		50.0	mg/Kg		04/27/21 10:20	04/28/21 16:37	1
Total TPH	805		50.0	mg/Kg		04/27/21 10:20	04/28/21 16:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130			04/27/21 10:20	04/28/21 16:37	1
o-Terphenyl	92		70 - 130			04/27/21 10:20	04/28/21 16:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	731		4.99	mg/Kg			04/27/21 20:44	1

Client Sample ID: BH07 A

Lab Sample ID: 890-576-5

Date Collected: 04/26/21 12:50

Matrix: Solid

Date Received: 04/26/21 16:48

Sample Depth: - 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00247	B	0.00200	mg/Kg		04/27/21 13:36	04/29/21 16:16	1
Toluene	0.0679		0.00200	mg/Kg		04/27/21 13:36	04/29/21 16:16	1
Ethylbenzene	0.0445		0.00200	mg/Kg		04/27/21 13:36	04/29/21 16:16	1
m-Xylene & p-Xylene	0.792		0.00399	mg/Kg		04/27/21 13:36	04/29/21 16:16	1
o-Xylene	0.326		0.00200	mg/Kg		04/27/21 13:36	04/29/21 16:16	1
Xylenes, Total	1.12		0.00399	mg/Kg		04/27/21 13:36	04/29/21 16:16	1
Total BTEX	1.23		0.00399	mg/Kg		04/27/21 13:36	04/29/21 16:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	184	S1+	70 - 130			04/27/21 13:36	04/29/21 16:16	1
1,4-Difluorobenzene (Surr)	99		70 - 130			04/27/21 13:36	04/29/21 16:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Client Sample ID: BH07 A

Lab Sample ID: 890-576-5

Date Collected: 04/26/21 12:50

Matrix: Solid

Date Received: 04/26/21 16:48

Sample Depth: - 6

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	358	*+ *1	50.0	mg/Kg		04/27/21 10:20	04/28/21 17:19	1
Diesel Range Organics (Over C10-C28)	1880		50.0	mg/Kg		04/27/21 10:20	04/28/21 17:19	1
Oil Range Organics (Over C28-C36)	215		50.0	mg/Kg		04/27/21 10:20	04/28/21 17:19	1
Total TPH	2450		50.0	mg/Kg		04/27/21 10:20	04/28/21 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	130		70 - 130	04/27/21 10:20	04/28/21 17:19	1
o-Terphenyl	104		70 - 130	04/27/21 10:20	04/28/21 17:19	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4200		24.8	mg/Kg			04/27/21 20:49	5

Client Sample ID: BH08

Lab Sample ID: 890-576-6

Date Collected: 04/26/21 11:00

Matrix: Solid

Date Received: 04/26/21 16:48

Sample Depth: - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		04/27/21 13:36	04/29/21 16:54	1
Toluene	<0.00198	U	0.00198	mg/Kg		04/27/21 13:36	04/29/21 16:54	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		04/27/21 13:36	04/29/21 16:54	1
m-Xylene & p-Xylene	0.00877		0.00397	mg/Kg		04/27/21 13:36	04/29/21 16:54	1
o-Xylene	0.0160		0.00198	mg/Kg		04/27/21 13:36	04/29/21 16:54	1
Xylenes, Total	0.0248		0.00397	mg/Kg		04/27/21 13:36	04/29/21 16:54	1
Total BTEX	0.0248		0.00397	mg/Kg		04/27/21 13:36	04/29/21 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	04/27/21 13:36	04/29/21 16:54	1
1,4-Difluorobenzene (Surr)	69	S1-	70 - 130	04/27/21 13:36	04/29/21 16:54	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 *+ *1	50.0	mg/Kg		04/27/21 10:20	04/28/21 17:40	1
Diesel Range Organics (Over C10-C28)	757		50.0	mg/Kg		04/27/21 10:20	04/28/21 17:40	1
Oil Range Organics (Over C28-C36)	86.9		50.0	mg/Kg		04/27/21 10:20	04/28/21 17:40	1
Total TPH	844		50.0	mg/Kg		04/27/21 10:20	04/28/21 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130	04/27/21 10:20	04/28/21 17:40	1
o-Terphenyl	89		70 - 130	04/27/21 10:20	04/28/21 17:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	819		4.95	mg/Kg			04/27/21 20:54	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-576-1	BH05	123	99
890-576-2	BH06	121	100
890-576-3	BH06 A	252 S1+	86
890-576-4	BH07	114	90
890-576-5	BH07 A	184 S1+	99
890-576-6	BH08	126	69 S1-
LCS 880-2392/1-A	Lab Control Sample	95	109
LCS 880-2456/1-A	Lab Control Sample	111	102
LCSD 880-2392/2-A	Lab Control Sample Dup	90	102
LCSD 880-2456/2-A	Lab Control Sample Dup	114	104
MB 880-2392/5-A	Method Blank	106	92
MB 880-2456/5-A	Method Blank	90	91
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)
890-576-1	BH05	111	99
890-576-2	BH06	128	120
890-576-3	BH06 A	134 S1+	105
890-576-4	BH07	105	92
890-576-5	BH07 A	130	104
890-576-6	BH08	103	89
LCS 880-2377/2-A	Lab Control Sample	130	113
LCSD 880-2377/3-A	Lab Control Sample Dup	110	100
MB 880-2377/1-A	Method Blank	114	108
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2392/5-A

Matrix: Solid

Analysis Batch: 2475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2392

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.002017		0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 13:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/27/21 13:36	04/29/21 13:09	1
1,4-Difluorobenzene (Surr)	92		70 - 130	04/27/21 13:36	04/29/21 13:09	1

Lab Sample ID: LCS 880-2392/1-A

Matrix: Solid

Analysis Batch: 2475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09549		mg/Kg		95	70 - 130
Toluene	0.100	0.1074		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1022		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2096		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1017		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-2392/2-A

Matrix: Solid

Analysis Batch: 2475

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09165		mg/Kg		92	70 - 130	4	35
Toluene	0.100	0.1047		mg/Kg		105	70 - 130	3	35
Ethylbenzene	0.100	0.1005		mg/Kg		100	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1970		mg/Kg		98	70 - 130	6	35
o-Xylene	0.100	0.09566		mg/Kg		96	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-2456/5-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

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

Lab Sample ID: MB 880-2456/5-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/28/21 14:55	04/29/21 13:58	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/28/21 14:55	04/29/21 13:58	1

Lab Sample ID: LCS 880-2456/1-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1181		mg/Kg		118	70 - 130
Toluene	0.100	0.1133		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1146		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	0.200	0.2472		mg/Kg		124	70 - 130
o-Xylene	0.100	0.1233		mg/Kg		123	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-2456/2-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2456

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1155		mg/Kg		115	70 - 130	2	35
Toluene	0.100	0.1097		mg/Kg		110	70 - 130	3	35
Ethylbenzene	0.100	0.1117		mg/Kg		112	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2408		mg/Kg		120	70 - 130	3	35
o-Xylene	0.100	0.1207		mg/Kg		121	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

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

Lab Sample ID: MB 880-2377/1-A

Matrix: Solid

Analysis Batch: 2425

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2377

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1
Total TPH	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/27/21 10:20	04/28/21 10:35	1
o-Terphenyl	108		70 - 130	04/27/21 10:20	04/28/21 10:35	1

Lab Sample ID: LCS 880-2377/2-A

Matrix: Solid

Analysis Batch: 2425

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2377

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1476	*+	mg/Kg		148	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1231		mg/Kg		123	70 - 130

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

Lab Sample ID: LCSD 880-2377/3-A

Matrix: Solid

Analysis Batch: 2425

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2377

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1178	*1	mg/Kg		118	70 - 130	23	20
Diesel Range Organics (Over C10-C28)	1000	1020		mg/Kg		102	70 - 130	19	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	100		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2398/1-A

Matrix: Solid

Analysis Batch: 2415

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			04/27/21 19:16	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-2398/2-A

Matrix: Solid

Analysis Batch: 2415

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	254.5		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-2398/3-A

Matrix: Solid

Analysis Batch: 2415

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	255.0		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

GC VOA

Prep Batch: 2392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-5	BH07 A	Total/NA	Solid	5035	
890-576-6	BH08	Total/NA	Solid	5035	
MB 880-2392/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2392/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2392/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 2456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-1	BH05	Total/NA	Solid	5035	
890-576-2	BH06	Total/NA	Solid	5035	
890-576-3	BH06 A	Total/NA	Solid	5035	
890-576-4	BH07	Total/NA	Solid	5035	
MB 880-2456/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2456/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2456/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 2475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-5	BH07 A	Total/NA	Solid	8021B	2392
890-576-6	BH08	Total/NA	Solid	8021B	2392
MB 880-2392/5-A	Method Blank	Total/NA	Solid	8021B	2392
LCS 880-2392/1-A	Lab Control Sample	Total/NA	Solid	8021B	2392
LCSD 880-2392/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2392

Analysis Batch: 2480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-1	BH05	Total/NA	Solid	8021B	2456
890-576-2	BH06	Total/NA	Solid	8021B	2456
890-576-3	BH06 A	Total/NA	Solid	8021B	2456
890-576-4	BH07	Total/NA	Solid	8021B	2456
MB 880-2456/5-A	Method Blank	Total/NA	Solid	8021B	2456
LCS 880-2456/1-A	Lab Control Sample	Total/NA	Solid	8021B	2456
LCSD 880-2456/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2456

GC Semi VOA

Prep Batch: 2377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-1	BH05	Total/NA	Solid	8015NM Prep	
890-576-2	BH06	Total/NA	Solid	8015NM Prep	
890-576-3	BH06 A	Total/NA	Solid	8015NM Prep	
890-576-4	BH07	Total/NA	Solid	8015NM Prep	
890-576-5	BH07 A	Total/NA	Solid	8015NM Prep	
890-576-6	BH08	Total/NA	Solid	8015NM Prep	
MB 880-2377/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2377/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2377/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-1	BH05	Total/NA	Solid	8015B NM	2377

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

GC Semi VOA (Continued)

Analysis Batch: 2425 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-2	BH06	Total/NA	Solid	8015B NM	2377
890-576-3	BH06 A	Total/NA	Solid	8015B NM	2377
890-576-4	BH07	Total/NA	Solid	8015B NM	2377
890-576-5	BH07 A	Total/NA	Solid	8015B NM	2377
890-576-6	BH08	Total/NA	Solid	8015B NM	2377
MB 880-2377/1-A	Method Blank	Total/NA	Solid	8015B NM	2377
LCS 880-2377/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2377
LCSD 880-2377/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2377

HPLC/IC

Leach Batch: 2398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-1	BH05	Soluble	Solid	DI Leach	
890-576-2	BH06	Soluble	Solid	DI Leach	
890-576-3	BH06 A	Soluble	Solid	DI Leach	
890-576-4	BH07	Soluble	Solid	DI Leach	
890-576-5	BH07 A	Soluble	Solid	DI Leach	
890-576-6	BH08	Soluble	Solid	DI Leach	
MB 880-2398/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2398/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2398/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-576-1	BH05	Soluble	Solid	300.0	2398
890-576-2	BH06	Soluble	Solid	300.0	2398
890-576-3	BH06 A	Soluble	Solid	300.0	2398
890-576-4	BH07	Soluble	Solid	300.0	2398
890-576-5	BH07 A	Soluble	Solid	300.0	2398
890-576-6	BH08	Soluble	Solid	300.0	2398
MB 880-2398/1-A	Method Blank	Soluble	Solid	300.0	2398
LCS 880-2398/2-A	Lab Control Sample	Soluble	Solid	300.0	2398
LCSD 880-2398/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2398

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Client Sample ID: BH05

Lab Sample ID: 890-576-1

Date Collected: 04/26/21 10:00

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2456	04/28/21 14:55	KL	XM
Total/NA	Analysis	8021B		1	2480	04/29/21 15:35	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 15:34	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		1	2415	04/27/21 20:14	CH	XM

Client Sample ID: BH06

Lab Sample ID: 890-576-2

Date Collected: 04/26/21 10:20

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2456	04/28/21 14:55	KL	XM
Total/NA	Analysis	8021B		1	2480	04/29/21 15:56	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 19:46	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		1	2415	04/27/21 20:33	CH	XM

Client Sample ID: BH06 A

Lab Sample ID: 890-576-3

Date Collected: 04/26/21 12:30

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2456	04/28/21 14:55	KL	XM
Total/NA	Analysis	8021B		1	2480	04/29/21 16:53	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 20:28	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		5	2415	04/27/21 20:38	CH	XM

Client Sample ID: BH07

Lab Sample ID: 890-576-4

Date Collected: 04/26/21 10:40

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2456	04/28/21 14:55	KL	XM
Total/NA	Analysis	8021B		1	2480	04/29/21 17:13	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 16:37	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		1	2415	04/27/21 20:44	CH	XM

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Client Sample ID: BH07 A

Lab Sample ID: 890-576-5

Date Collected: 04/26/21 12:50

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2392	04/27/21 13:36	KL	XM
Total/NA	Analysis	8021B		1	2475	04/29/21 16:16	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 17:19	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		5	2415	04/27/21 20:49	CH	XM

Client Sample ID: BH08

Lab Sample ID: 890-576-6

Date Collected: 04/26/21 11:00

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2392	04/27/21 13:36	KL	XM
Total/NA	Analysis	8021B		1	2475	04/29/21 16:54	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 17:40	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		1	2415	04/27/21 20:54	CH	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

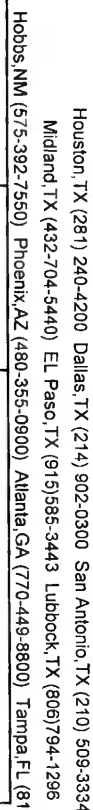
XM = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-576-1
SDG: TE01921027

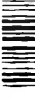
Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-576-1	BH05	Solid	04/26/21 10:00	04/26/21 16:48	- 4
890-576-2	BH06	Solid	04/26/21 10:20	04/26/21 16:48	- 4
890-576-3	BH06 A	Solid	04/26/21 12:30	04/26/21 16:48	- 6
890-576-4	BH07	Solid	04/26/21 10:40	04/26/21 16:48	- 4
890-576-5	BH07 A	Solid	04/26/21 12:50	04/26/21 16:48	- 6
890-576-6	BH08	Solid	04/26/21 11:00	04/26/21 16:48	- 4



Chain of Custody

Work Order No:

Work Order Comments	
Program: UST/ST	☐ PRR ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADaPT ☐ Other:

EST		Work Order Notes
 of Custody	Cost Center: 1665271001 Incident ID: NAPP2102235706 Spill Date: 1/13/2021	
	TAT starts the day received by the lab, if received by 4:30pm	

[illegible]

Total	200.7 / 6010	200.8 / 6020:
8RCRA	Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	1631 / 245.1 / 7470 / 7471 : Hg
13PPM	Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag	
TCLP / SPLP 6010:	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xencio. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Xencio will be liable only for the cost of samples and shall not assume any responsibility for expenses incurred by the client if such losses are due to circumstances beyond the control of service. A minimum charge of \$75.00 will be applied to each project and a charge of \$3 for each sample submitted to Xencio, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		4-26-21 11:45	2		
3			4		
5			6		

Printed Date: 05/21/21 PM: 2018

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-576-1

SDG Number: TE01921027

Login Number: 576

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-576-1

SDG Number: TE01921027

Login Number: 576

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 04/27/21 03:48 PM

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-591-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

Revision: 3

For:

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

Attn: Dan Moir

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

Authorized for release by:

2/1/2022 8:16:59 AM

Jessica Kramer, Project Manager
(432)704-5440

jessica.kramer@eurofinset.com

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-591-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Job ID: 890-591-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-591-1

Comments

No additional comments.

Revision

The report being provided is a revision of the original report sent on 4/30/2021. The report (revision 2) is being revised due to: Per client email - Corrected sample from BH07A @ 12' to BH08A @ 12'.

Report revision history

Revision 1 - 5/5/2021 - Reason - Recalculating Data for TPH, flagging is incorrect.

Receipt

The samples were received on 4/28/2021 3:44 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Receipt Exceptions

Recalculating Data for TPH, flagging is incorrect

Per client email - Corrected sample from BH07A @ 12' to BH08A @ 12'

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Client Sample ID: BH05A

Lab Sample ID: 890-591-1

Date Collected: 04/27/21 14:00

Matrix: Solid

Date Received: 04/28/21 15:44

Sample Depth: - 9

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 03:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 03:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 03:44	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/29/21 11:00	04/30/21 03:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 03:44	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/29/21 11:00	04/30/21 03:44	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/29/21 11:00	04/30/21 03:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	04/29/21 11:00	04/30/21 03:44	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/29/21 11:00	04/30/21 03:44	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	<50.0	U *	50.0	mg/Kg		04/29/21 16:25	04/30/21 02:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/30/21 02:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/30/21 02:47	1
Total TPH	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/30/21 02:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130	04/29/21 16:25	04/30/21 02:47	1
o-Terphenyl	104		70 - 130	04/29/21 16:25	04/30/21 02:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.2		5.02	mg/Kg			04/30/21 10:13	1

Client Sample ID: BH06C

Lab Sample ID: 890-591-2

Date Collected: 04/27/21 13:20

Matrix: Solid

Date Received: 04/28/21 15:44

Sample Depth: - 16

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.279		0.00202	mg/Kg		04/29/21 11:00	04/30/21 04:05	1
Toluene	3.35		0.198	mg/Kg		04/29/21 10:30	04/30/21 16:33	100
Ethylbenzene	1.29		0.198	mg/Kg		04/29/21 10:30	04/30/21 16:33	100
m-Xylene & p-Xylene	14.4		0.397	mg/Kg		04/29/21 10:30	04/30/21 16:33	100
o-Xylene	3.91		0.198	mg/Kg		04/29/21 10:30	04/30/21 16:33	100
Xylenes, Total	18.3		0.397	mg/Kg		04/29/21 10:30	04/30/21 16:33	100
Total BTEX	23.0		0.397	mg/Kg		04/29/21 10:30	04/30/21 16:33	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	379	S1+	70 - 130	04/29/21 11:00	04/30/21 04:05	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/29/21 11:00	04/30/21 04:05	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Client Sample ID: BH06C

Lab Sample ID: 890-591-2

Date Collected: 04/27/21 13:20

Matrix: Solid

Date Received: 04/28/21 15:44

Sample Depth: - 16

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1870		50.0	mg/Kg		04/29/21 16:25	04/30/21 03:08	1
Diesel Range Organics (Over C10-C28)	3760		50.0	mg/Kg		04/29/21 16:25	04/30/21 03:08	1
Oil Range Organics (Over C28-C36)	434		50.0	mg/Kg		04/29/21 16:25	04/30/21 03:08	1
Total TPH	6060		50.0	mg/Kg		04/29/21 16:25	04/30/21 03:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130	04/29/21 16:25	04/30/21 03:08	1
o-Terphenyl	81		70 - 130	04/29/21 16:25	04/30/21 03:08	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	552		4.98	mg/Kg			04/30/21 10:19	1

Client Sample ID: BH07B

Lab Sample ID: 890-591-3

Date Collected: 04/27/21 14:20

Matrix: Solid

Date Received: 04/28/21 15:44

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00243		0.00202	mg/Kg		04/29/21 11:00	04/30/21 04:25	1
Toluene	0.0119		0.00202	mg/Kg		04/29/21 11:00	04/30/21 04:25	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		04/29/21 11:00	04/30/21 04:25	1
m-Xylene & p-Xylene	0.0128		0.00403	mg/Kg		04/29/21 11:00	04/30/21 04:25	1
o-Xylene	0.00457		0.00202	mg/Kg		04/29/21 11:00	04/30/21 04:25	1
Xylenes, Total	0.0174		0.00403	mg/Kg		04/29/21 11:00	04/30/21 04:25	1
Total BTEX	0.0317		0.00403	mg/Kg		04/29/21 11:00	04/30/21 04:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	04/29/21 11:00	04/30/21 04:25	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/29/21 11:00	04/30/21 04:25	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U **	50.0	mg/Kg		04/29/21 16:25	04/30/21 03:29	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/30/21 03:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/30/21 03:29	1
Total TPH	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/30/21 03:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130	04/29/21 16:25	04/30/21 03:29	1
o-Terphenyl	98		70 - 130	04/29/21 16:25	04/30/21 03:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.9		4.97	mg/Kg			04/30/21 10:24	1

Eurofins Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Client Sample ID: BH08C

Lab Sample ID: 890-591-4

Date Collected: 04/27/21 16:35

Matrix: Solid

Date Received: 04/28/21 15:44

Sample Depth: - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0854		0.00200	mg/Kg		04/29/21 11:00	04/30/21 04:46	1
Toluene	0.780		0.199	mg/Kg		04/29/21 10:30	04/30/21 16:54	100
Ethylbenzene	0.223		0.00200	mg/Kg		04/29/21 11:00	04/30/21 04:46	1
m-Xylene & p-Xylene	2.91		0.398	mg/Kg		04/29/21 10:30	04/30/21 16:54	100
o-Xylene	0.833		0.199	mg/Kg		04/29/21 10:30	04/30/21 16:54	100
Xylenes, Total	3.74		0.398	mg/Kg		04/29/21 10:30	04/30/21 16:54	100
Total BTEX	4.73		0.398	mg/Kg		04/29/21 10:30	04/30/21 16:54	100
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	166	S1+	70 - 130			04/29/21 11:00	04/30/21 04:46	1
1,4-Difluorobenzene (Surr)	78		70 - 130			04/29/21 11:00	04/30/21 04:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	279		49.9	mg/Kg		04/29/21 16:25	04/30/21 03:50	1
Diesel Range Organics (Over C10-C28)	630		49.9	mg/Kg		04/29/21 16:25	04/30/21 03:50	1
Oil Range Organics (Over C28-C36)	74.7		49.9	mg/Kg		04/29/21 16:25	04/30/21 03:50	1
Total TPH	984		49.9	mg/Kg		04/29/21 16:25	04/30/21 03:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			04/29/21 16:25	04/30/21 03:50	1
o-Terphenyl	92		70 - 130			04/29/21 16:25	04/30/21 03:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4460		24.8	mg/Kg			04/30/21 10:40	5

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-591-1	BH05A	110	94
890-591-2	BH06C	379 S1+	98
890-591-3	BH07B	119	107
890-591-4	BH08C	166 S1+	78
LCS 880-2452/1-A	Lab Control Sample	114	102
LCS 880-2460/1-A	Lab Control Sample	88	107
LCSD 880-2452/2-A	Lab Control Sample Dup	110	102
LCSD 880-2460/2-A	Lab Control Sample Dup	87	108
MB 880-2452/5-A	Method Blank	95	92
MB 880-2456/5-A	Method Blank	90	91
MB 880-2460/5-A	Method Blank	113	95

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)
890-591-1	BH05A	116	104
890-591-2	BH06C	132 S1+	81
890-591-3	BH07B	106	98
890-591-4	BH08C	108	92
LCS 880-2505/2-A	Lab Control Sample	113	96
LCSD 880-2505/3-A	Lab Control Sample Dup	111	96
MB 880-2505/1-A	Method Blank	107	100

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2452/5-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2452

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 02:01	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 02:01	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 02:01	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/29/21 11:00	04/30/21 02:01	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/29/21 11:00	04/30/21 02:01	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/29/21 11:00	04/30/21 02:01	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/29/21 11:00	04/30/21 02:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	04/29/21 11:00	04/30/21 02:01	1
1,4-Difluorobenzene (Surr)	92		70 - 130	04/29/21 11:00	04/30/21 02:01	1

Lab Sample ID: LCS 880-2452/1-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2452

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1008		mg/Kg		101	70 - 130
Toluene	0.100	0.09564		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.09683		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2094		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1057		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-2452/2-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2452

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1095		mg/Kg		109	70 - 130	8	35
Toluene	0.100	0.1032		mg/Kg		103	70 - 130	8	35
Ethylbenzene	0.100	0.1016		mg/Kg		102	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2171		mg/Kg		109	70 - 130	4	35
o-Xylene	0.100	0.1104		mg/Kg		110	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-2456/5-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

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

Lab Sample ID: MB 880-2456/5-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/28/21 14:55	04/29/21 13:58	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/28/21 14:55	04/29/21 13:58	1

Lab Sample ID: MB 880-2460/5-A

Matrix: Solid

Analysis Batch: 2529

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2460

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/29/21 10:30	04/30/21 12:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/29/21 10:30	04/30/21 12:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/29/21 10:30	04/30/21 12:59	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/29/21 10:30	04/30/21 12:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/29/21 10:30	04/30/21 12:59	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/29/21 10:30	04/30/21 12:59	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/29/21 10:30	04/30/21 12:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	04/29/21 10:30	04/30/21 12:59	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/29/21 10:30	04/30/21 12:59	1

Lab Sample ID: LCS 880-2460/1-A

Matrix: Solid

Analysis Batch: 2529

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07991		mg/Kg		80	70 - 130
Toluene	0.100	0.1012		mg/Kg		101	70 - 130
Ethylbenzene	0.100	0.09850		mg/Kg		98	70 - 130
m-Xylene & p-Xylene	0.200	0.1987		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09373		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	88		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

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

Lab Sample ID: LCSD 880-2460/2-A

Matrix: Solid

Analysis Batch: 2529

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2460

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09380		mg/Kg		94	70 - 130	16	35
Toluene	0.100	0.1030		mg/Kg		103	70 - 130	2	35
Ethylbenzene	0.100	0.09529		mg/Kg		95	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2009		mg/Kg		100	70 - 130	1	35
o-Xylene	0.100	0.09688		mg/Kg		97	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

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

Lab Sample ID: MB 880-2505/1-A

Matrix: Solid

Analysis Batch: 2468

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2505

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/29/21 21:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/29/21 21:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/29/21 21:04	1
Total TPH	<50.0	U	50.0	mg/Kg		04/29/21 16:25	04/29/21 21:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	04/29/21 16:25	04/29/21 21:04	1
o-Terphenyl	100		70 - 130	04/29/21 16:25	04/29/21 21:04	1

Lab Sample ID: LCS 880-2505/2-A

Matrix: Solid

Analysis Batch: 2468

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2505

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1063		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	888.0		mg/Kg		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	113		70 - 130
o-Terphenyl	96		70 - 130

Lab Sample ID: LCSD 880-2505/3-A

Matrix: Solid

Analysis Batch: 2468

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2505

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1087		mg/Kg		109	70 - 130	2	20

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

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

Lab Sample ID: LCSD 880-2505/3-A

Matrix: Solid

Analysis Batch: 2468

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2505

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	867.1		mg/Kg		87	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	111		70 - 130
o-Terphenyl	96		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2487/1-A

Matrix: Solid

Analysis Batch: 2513

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			04/30/21 08:39	1

Lab Sample ID: LCS 880-2487/2-A

Matrix: Solid

Analysis Batch: 2513

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	249.2		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-2487/3-A

Matrix: Solid

Analysis Batch: 2513

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	250.6		mg/Kg		100	90 - 110	1	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

GC VOA

Prep Batch: 2452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-1	BH05A	Total/NA	Solid	5035	
890-591-2	BH06C	Total/NA	Solid	5035	
890-591-3	BH07B	Total/NA	Solid	5035	
890-591-4	BH08C	Total/NA	Solid	5035	
MB 880-2452/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2452/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2452/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 2456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-2456/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 2460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-2	BH06C	Total/NA	Solid	5035	
890-591-4	BH08C	Total/NA	Solid	5035	
MB 880-2460/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2460/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2460/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 2480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-1	BH05A	Total/NA	Solid	8021B	2452
890-591-2	BH06C	Total/NA	Solid	8021B	2452
890-591-3	BH07B	Total/NA	Solid	8021B	2452
890-591-4	BH08C	Total/NA	Solid	8021B	2452
MB 880-2452/5-A	Method Blank	Total/NA	Solid	8021B	2452
MB 880-2456/5-A	Method Blank	Total/NA	Solid	8021B	2456
LCS 880-2452/1-A	Lab Control Sample	Total/NA	Solid	8021B	2452
LCSD 880-2452/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2452

Analysis Batch: 2529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-2	BH06C	Total/NA	Solid	8021B	2460
890-591-4	BH08C	Total/NA	Solid	8021B	2460
MB 880-2460/5-A	Method Blank	Total/NA	Solid	8021B	2460
LCS 880-2460/1-A	Lab Control Sample	Total/NA	Solid	8021B	2460
LCSD 880-2460/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2460

GC Semi VOA

Analysis Batch: 2468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-1	BH05A	Total/NA	Solid	8015B NM	2505
890-591-2	BH06C	Total/NA	Solid	8015B NM	2505
890-591-3	BH07B	Total/NA	Solid	8015B NM	2505
890-591-4	BH08C	Total/NA	Solid	8015B NM	2505
MB 880-2505/1-A	Method Blank	Total/NA	Solid	8015B NM	2505
LCS 880-2505/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2505
LCSD 880-2505/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2505

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

GC Semi VOA

Prep Batch: 2505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-1	BH05A	Total/NA	Solid	8015NM Prep	
890-591-2	BH06C	Total/NA	Solid	8015NM Prep	
890-591-3	BH07B	Total/NA	Solid	8015NM Prep	
890-591-4	BH08C	Total/NA	Solid	8015NM Prep	
MB 880-2505/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2505/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2505/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 2487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-1	BH05A	Soluble	Solid	DI Leach	
890-591-2	BH06C	Soluble	Solid	DI Leach	
890-591-3	BH07B	Soluble	Solid	DI Leach	
890-591-4	BH08C	Soluble	Solid	DI Leach	
MB 880-2487/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2487/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2487/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-591-1	BH05A	Soluble	Solid	300.0	2487
890-591-2	BH06C	Soluble	Solid	300.0	2487
890-591-3	BH07B	Soluble	Solid	300.0	2487
890-591-4	BH08C	Soluble	Solid	300.0	2487
MB 880-2487/1-A	Method Blank	Soluble	Solid	300.0	2487
LCS 880-2487/2-A	Lab Control Sample	Soluble	Solid	300.0	2487
LCSD 880-2487/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2487

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Client Sample ID: BH05A

Lab Sample ID: 890-591-1

Date Collected: 04/27/21 14:00

Matrix: Solid

Date Received: 04/28/21 15:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2452	04/29/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	2480	04/30/21 03:44	KL	XEN MID
Total/NA	Prep	8015NM Prep			2505	04/29/21 16:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1	2468	04/30/21 02:47	AJ	XEN MID
Soluble	Leach	DI Leach			2487	04/29/21 11:19	CH	XEN MID
Soluble	Analysis	300.0		1	2513	04/30/21 10:13	CH	XEN MID

Client Sample ID: BH06C

Lab Sample ID: 890-591-2

Date Collected: 04/27/21 13:20

Matrix: Solid

Date Received: 04/28/21 15:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2460	04/29/21 10:30	KL	XEN MID
Total/NA	Analysis	8021B		100	2529	04/30/21 16:33	KL	XEN MID
Total/NA	Prep	5035			2452	04/29/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	2480	04/30/21 04:05	KL	XEN MID
Total/NA	Prep	8015NM Prep			2505	04/29/21 16:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1	2468	04/30/21 03:08	AJ	XEN MID
Soluble	Leach	DI Leach			2487	04/29/21 11:19	CH	XEN MID
Soluble	Analysis	300.0		1	2513	04/30/21 10:19	CH	XEN MID

Client Sample ID: BH07B

Lab Sample ID: 890-591-3

Date Collected: 04/27/21 14:20

Matrix: Solid

Date Received: 04/28/21 15:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2452	04/29/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	2480	04/30/21 04:25	KL	XEN MID
Total/NA	Prep	8015NM Prep			2505	04/29/21 16:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1	2468	04/30/21 03:29	AJ	XEN MID
Soluble	Leach	DI Leach			2487	04/29/21 11:19	CH	XEN MID
Soluble	Analysis	300.0		1	2513	04/30/21 10:24	CH	XEN MID

Client Sample ID: BH08C

Lab Sample ID: 890-591-4

Date Collected: 04/27/21 16:35

Matrix: Solid

Date Received: 04/28/21 15:44

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2460	04/29/21 10:30	KL	XEN MID
Total/NA	Analysis	8021B		100	2529	04/30/21 16:54	KL	XEN MID
Total/NA	Prep	5035			2452	04/29/21 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	2480	04/30/21 04:46	KL	XEN MID
Total/NA	Prep	8015NM Prep			2505	04/29/21 16:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1	2468	04/30/21 03:50	AJ	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Client Sample ID: BH08C
Date Collected: 04/27/21 16:35
Date Received: 04/28/21 15:44

Lab Sample ID: 890-591-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			2487	04/29/21 11:19	CH	XEN MID
Soluble	Analysis	300.0		5	2513	04/30/21 10:40	CH	XEN MID

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

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Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Laboratory: Eurofins 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	06-30-21
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-591-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-591-1	BH05A	Solid	04/27/21 14:00	04/28/21 15:44	- 9
890-591-2	BH06C	Solid	04/27/21 13:20	04/28/21 15:44	- 16
890-591-3	BH07B	Solid	04/27/21 14:20	04/28/21 15:44	- 8
890-591-4	BH08C	Solid	04/27/21 16:35	04/28/21 15:44	- 12

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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

Chain of Custody

Work Order No: _____

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Page 1 of 1

Project Manager: Dan Moir
Company Name: WSP
Address: 3300 North A Street
City, State ZIP: Midland, TX 79705
Phone: (303) 887-2946

Bill to: (if different)
Company Name: XTO Energy
Address: 3104 East Green Street
City, State ZIP: Carlsbad, NM 88220

Project Name: PLU 15 TWR 901H
Project Number: TE012921027
P.O. Number:
Sampler's Name: Spencer Lo
Turn Around: Routine ☐
Rush: 3 day
Due Date:

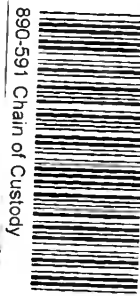
Program: ☐ PST ☐ PRR ☐ Brownfields ☐ RRC ☐ Superfund
State of Project:
Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD ☐ ADAPT ☐ Other:

ANALYSIS REQUEST

Work Order Notes

Cost Center: 1665271001
Incident ID: NAPP2102235706
Spill Date: 1/13/2021

SAMPLE RECEIPT
Temperature (°C): 22/20
Received In tact: Yes No
Cooler Custody Seals: Yes No N/A
Sample Custody Seals: Yes No N/A
Temp Blank: Yes No
Well Ice: Yes No
Thermometer ID: 71014-003
Correction Factor:



890-591 Chain of Custody

TAT starts the day received 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)													
BH05A	S		4/27/2021	1400	9'	1	X	X	X												
BH06B	S		4/27/2021	1320	16'	1	X	X	X												
BH07B	S		4/27/2021	1420	8'	1	X	X	X												
BH07A	S		4/27/2021	1635	12'	1	X	X	X												

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

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
		4-28-21 1544			

Eurofins Xenco, Carlsbad

Environment Testing America

Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-591-1

SDG Number: TE012921027

Login Number: 591**List Number: 1****Creator: Clifton, Cloe****List Source: Eurofins Carlsbad**

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-591-1
SDG Number: TE012921027**Login Number: 591****List Number: 2****Creator: Copeland, Tatiana****List Source: Eurofins Midland****List Creation: 04/29/21 04:06 PM**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-971-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

For:

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

Attn: Dan Moir

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

Authorized for release by:
7/29/2021 8:31:44 PM

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

LINKS

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-971-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	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: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Job ID: 890-971-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative	
Job Narrative 890-971-1	

Receipt

The sample was received on 7/22/2021 9:04 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°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

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

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Client Sample ID: BH05B

Lab Sample ID: 890-971-1

Date Collected: 07/21/21 14:10

Matrix: Solid

Date Received: 07/22/21 09:04

Sample Depth: - 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0295		0.00199	mg/Kg		07/23/21 11:06	07/23/21 18:19	1
Toluene	0.846		0.100	mg/Kg		07/26/21 09:45	07/26/21 16:47	50
Ethylbenzene	0.0294		0.00199	mg/Kg		07/23/21 11:06	07/23/21 18:19	1
m-Xylene & p-Xylene	5.77		0.200	mg/Kg		07/26/21 09:45	07/26/21 16:47	50
o-Xylene	2.51		0.100	mg/Kg		07/26/21 09:45	07/26/21 16:47	50
Xylenes, Total	8.28		0.200	mg/Kg		07/26/21 09:45	07/26/21 16:47	50
Total BTEX	9.33		0.200	mg/Kg		07/26/21 09:45	07/26/21 16:47	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	630	S1+	70 - 130	07/23/21 11:06	07/23/21 18:19	1
1,4-Difluorobenzene (Surr)	98		70 - 130	07/23/21 11:06	07/23/21 18:19	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	327		50.0	mg/Kg		07/23/21 13:34	07/27/21 12:37	1
Diesel Range Organics (Over C10-C28)	1120		50.0	mg/Kg		07/23/21 13:34	07/27/21 12:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 12:37	1
Total TPH	1450		50.0	mg/Kg		07/23/21 13:34	07/27/21 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130	07/23/21 13:34	07/27/21 12:37	1
o-Terphenyl	110		70 - 130	07/23/21 13:34	07/27/21 12:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	777		5.05	mg/Kg			07/28/21 20:34	1

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-971-1	BH05B	630 S1+	98
LCS 880-5584/1-A	Lab Control Sample	117	101
LCS 880-5606/1-A	Lab Control Sample	87	82
LCSD 880-5584/2-A	Lab Control Sample Dup	122	98
LCSD 880-5606/2-A	Lab Control Sample Dup	95	116
MB 880-5584/5-A	Method Blank	86	81
MB 880-5606/5-A	Method Blank	98	89
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)
890-971-1	BH05B	102	110
LCS 880-5596/2-A	Lab Control Sample	112	124
LCSD 880-5596/3-A	Lab Control Sample Dup	104	116
MB 880-5596/1-A	Method Blank	89	106
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5584/5-A

Matrix: Solid

Analysis Batch: 5586

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5584

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/23/21 11:06	07/23/21 16:14	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/23/21 11:06	07/23/21 16:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		70 - 130	07/23/21 11:06	07/23/21 16:14	1
1,4-Difluorobenzene (Surr)	81		70 - 130	07/23/21 11:06	07/23/21 16:14	1

Lab Sample ID: LCS 880-5584/1-A

Matrix: Solid

Analysis Batch: 5586

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5584

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1190		mg/Kg		119	70 - 130
Toluene	0.100	0.1171		mg/Kg		117	70 - 130
Ethylbenzene	0.100	0.1285		mg/Kg		129	70 - 130
m-Xylene & p-Xylene	0.200	0.2272		mg/Kg		114	70 - 130
o-Xylene	0.100	0.1133		mg/Kg		113	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-5584/2-A

Matrix: Solid

Analysis Batch: 5586

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5584

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1142		mg/Kg		114	70 - 130	4	35
Toluene	0.100	0.1042		mg/Kg		104	70 - 130	12	35
Ethylbenzene	0.100	0.1211		mg/Kg		121	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.2118		mg/Kg		106	70 - 130	7	35
o-Xylene	0.100	0.1049		mg/Kg		105	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: MB 880-5606/5-A

Matrix: Solid

Analysis Batch: 5653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5606

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

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

Lab Sample ID: MB 880-5606/5-A

Matrix: Solid

Analysis Batch: 5653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5606

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/26/21 09:45	07/26/21 13:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	07/26/21 09:45	07/26/21 13:18	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/26/21 09:45	07/26/21 13:18	1

Lab Sample ID: LCS 880-5606/1-A

Matrix: Solid

Analysis Batch: 5653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1070		mg/Kg		107	70 - 130
Toluene	0.100	0.09196		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.09268		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	0.200	0.1943		mg/Kg		97	70 - 130
o-Xylene	0.100	0.09253		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: LCSD 880-5606/2-A

Matrix: Solid

Analysis Batch: 5653

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5606

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1033		mg/Kg		103	70 - 130	4	35
Toluene	0.100	0.1068		mg/Kg		107	70 - 130	15	35
Ethylbenzene	0.100	0.09698		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2056		mg/Kg		103	70 - 130	6	35
o-Xylene	0.100	0.09618		mg/Kg		96	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

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

Lab Sample ID: MB 880-5596/1-A

Matrix: Solid

Analysis Batch: 5685

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5596

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		07/23/21 13:34	07/27/21 10:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 10:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 10:11	1
Total TPH	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 10:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	07/23/21 13:34	07/27/21 10:11	1
o-Terphenyl	106		70 - 130	07/23/21 13:34	07/27/21 10:11	1

Lab Sample ID: LCS 880-5596/2-A

Matrix: Solid

Analysis Batch: 5685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	955.2		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1113		mg/Kg		111	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	124		70 - 130

Lab Sample ID: LCSD 880-5596/3-A

Matrix: Solid

Analysis Batch: 5685

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5596

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	878.7		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	1035		mg/Kg		103	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	116		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5755/1-A

Matrix: Solid

Analysis Batch: 5771

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			07/28/21 18:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-5755/2-A

Matrix: Solid

Analysis Batch: 5771

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-5755/3-A

Matrix: Solid

Analysis Batch: 5771

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	247.4		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

GC VOA

Prep Batch: 5584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Total/NA	Solid	5035	
MB 880-5584/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5584/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5584/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 5586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Total/NA	Solid	8021B	5584
MB 880-5584/5-A	Method Blank	Total/NA	Solid	8021B	5584
LCS 880-5584/1-A	Lab Control Sample	Total/NA	Solid	8021B	5584
LCSD 880-5584/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5584

Prep Batch: 5606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Total/NA	Solid	5035	
MB 880-5606/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5606/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5606/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 5653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Total/NA	Solid	8021B	5606
MB 880-5606/5-A	Method Blank	Total/NA	Solid	8021B	5606
LCS 880-5606/1-A	Lab Control Sample	Total/NA	Solid	8021B	5606
LCSD 880-5606/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5606

GC Semi VOA

Prep Batch: 5596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Total/NA	Solid	8015NM Prep	
MB 880-5596/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5596/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5596/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 5685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Total/NA	Solid	8015B NM	5596
MB 880-5596/1-A	Method Blank	Total/NA	Solid	8015B NM	5596
LCS 880-5596/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5596
LCSD 880-5596/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5596

HPLC/IC

Leach Batch: 5755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Soluble	Solid	DI Leach	
MB 880-5755/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5755/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5755/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

HPLC/IC

Analysis Batch: 5771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-971-1	BH05B	Soluble	Solid	300.0	5755
MB 880-5755/1-A	Method Blank	Soluble	Solid	300.0	5755
LCS 880-5755/2-A	Lab Control Sample	Soluble	Solid	300.0	5755
LCSD 880-5755/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5755

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Client Sample ID: BH05B

Lab Sample ID: 890-971-1

Date Collected: 07/21/21 14:10

Matrix: Solid

Date Received: 07/22/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5606	07/26/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		50	5653	07/26/21 16:47	KL	XEN MID
Total/NA	Prep	5035			5584	07/23/21 11:06	KL	XEN MID
Total/NA	Analysis	8021B		1	5586	07/23/21 18:19	KL	XEN MID
Total/NA	Prep	8015NM Prep			5596	07/23/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5685	07/27/21 12:37	AJ	XEN MID
Soluble	Leach	DI Leach			5755	07/28/21 13:43	CH	XEN MID
Soluble	Analysis	300.0		1	5771	07/28/21 20:34	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.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-971-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-971-1	BH05B	Solid	07/21/21 14:10	07/22/21 09:04	- 6

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0350 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (602) 392-7550 Atlanta, GA (770) 449-8800 Tampa, FL (813) 291-3927
Hobbs, NM (575) 392-7550

Work Order No: _____

Page 1 of 1

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Chain of Custody

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

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

	ANALYSIS REQUEST						Work Order Notes
Project Name:	PLU 15 TWR 901H				Turn Around		
Project Number:	TE012921027		Routine	☒			Cost Center : 1665271001 Incident # NAPP2102235706
P.O. Number:			Rush:	☐			
Sampler's Name:	Elliot Lee		Due Date:				
SAMPLE RECEIPT							
Temperature ("C):	21.8 / 24	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	Thermometer ID	
Received Intact:	(Yes) No					Correction Factor: -0.2	
Cooler Custody Seals:	Yes (No)	N/A	Total Containers:				
Sample Custody Seals:	Yes (No)	No					
Number of Containers							
(EPA 8015)							
(EPA 0=8021)							
Label (EPA 300.0)							
 <u>890-971 Chain of Custody</u>							
TAT starts the day received by the lab, if received by 4:30pm							

[illegible]

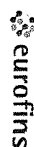
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility 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.

Total 200.7 / 6010 200.8 / 6020:									
Circle Method(s) and Metal(s) to be analyzed									
8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn									
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U									
1604+246+4+7470+7474-Hg									
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.									
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time				
1 <i>[Signature]</i>	<i>[Signature]</i>	7/24/2008	2 <i>[Signature]</i>	<i>[Signature]</i>	7-22-09				
3			4						
5			6						

Revised Date 05/14/18 Rev 2018

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

Chain of Custody Record



Environment Testing
America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-971-1

SDG Number: TE012921027

Login Number: 971

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: 890-971-1

SDG Number: TE012921027

Login Number: 971

List Number: 2

Creator: Phillips, Kerianna

List Source: Eurofins Xenco, Midland

List Creation: 07/23/21 11:02 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-606-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

Revision: 1

For:

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

Attn: Dan Moir

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

Authorized for release by:

2/1/2022 8:20:06 AM

Jessica Kramer, Project Manager
(432)704-5440

jessica.kramer@eurofinset.com

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-606-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high 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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Job ID: 890-606-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-606-1

Receipt

The sample was received on 4/30/2021 12:47 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

Receipt Exceptions

The following samples analyzed for method BTEX 80021 were received and analyzed from an unpreserved bulk soil jar: BH06C (890-606-1).

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Client Sample ID: BH06B

Lab Sample ID: 890-606-1

Date Collected: 04/27/21 12:45

Matrix: Solid

Date Received: 04/30/21 12:47

Sample Depth: - 9

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.38		0.199	mg/Kg		05/03/21 10:04	05/03/21 16:32	100
Toluene	10.9		0.199	mg/Kg		05/03/21 10:04	05/03/21 16:32	100
Ethylbenzene	2.56		0.199	mg/Kg		05/03/21 10:04	05/03/21 16:32	100
m-Xylene & p-Xylene	28.9		0.398	mg/Kg		05/03/21 10:04	05/03/21 16:32	100
o-Xylene	7.43		0.199	mg/Kg		05/03/21 10:04	05/03/21 16:32	100
Xylenes, Total	36.3		0.398	mg/Kg		05/03/21 10:04	05/03/21 16:32	100
Total BTEX	51.2		0.398	mg/Kg		05/03/21 10:04	05/03/21 16:32	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	05/03/21 10:04	05/03/21 16:32	100
1,4-Difluorobenzene (Surr)	116		70 - 130	05/03/21 10:04	05/03/21 16:32	100

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	2720		49.9	mg/Kg		05/03/21 10:07	05/03/21 13:17	1
Diesel Range Organics (Over C10-C28)	3690		49.9	mg/Kg		05/03/21 10:07	05/03/21 13:17	1
Oil Range Organics (Over C28-C36)	554		49.9	mg/Kg		05/03/21 10:07	05/03/21 13:17	1
Total TPH	6960		49.9	mg/Kg		05/03/21 10:07	05/03/21 13:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	142	S1+	70 - 130	05/03/21 10:07	05/03/21 13:17	1
o-Terphenyl	88		70 - 130	05/03/21 10:07	05/03/21 13:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2570		25.0	mg/Kg			05/05/21 10:07	5

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-606-1	BH06B	126	116
LCS 880-2609/1-A	Lab Control Sample	93	119
LCSD 880-2609/2-A	Lab Control Sample Dup	93	115
MB 880-2609/5-A	Method Blank	113	106

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)
890-606-1	BH06B	142 S1+	88
LCS 880-2611/2-A	Lab Control Sample	112	98
LCSD 880-2611/3-A	Lab Control Sample Dup	104	92
MB 880-2611/1-A	Method Blank	115	110

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2609/5-A

Matrix: Solid

Analysis Batch: 2612

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2609

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/03/21 10:04	05/03/21 13:55	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/03/21 10:04	05/03/21 13:55	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/03/21 10:04	05/03/21 13:55	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/03/21 10:04	05/03/21 13:55	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/03/21 10:04	05/03/21 13:55	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/03/21 10:04	05/03/21 13:55	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		05/03/21 10:04	05/03/21 13:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	05/03/21 10:04	05/03/21 13:55	1
1,4-Difluorobenzene (Surr)	106		70 - 130	05/03/21 10:04	05/03/21 13:55	1

Lab Sample ID: LCS 880-2609/1-A

Matrix: Solid

Analysis Batch: 2612

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2609

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1103		mg/Kg		110	70 - 130
Toluene	0.100	0.1084		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1020		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2070		mg/Kg		104	70 - 130
o-Xylene	0.100	0.09968		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	119		70 - 130

Lab Sample ID: LCSD 880-2609/2-A

Matrix: Solid

Analysis Batch: 2612

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2609

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1036		mg/Kg		104	70 - 130	6	35
Toluene	0.100	0.1030		mg/Kg		103	70 - 130	5	35
Ethylbenzene	0.100	0.09489		mg/Kg		95	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1921		mg/Kg		96	70 - 130	7	35
o-Xylene	0.100	0.09189		mg/Kg		92	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	93		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

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

Lab Sample ID: MB 880-2611/1-A

Matrix: Solid

Analysis Batch: 2605

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2611

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		05/03/21 10:07	05/03/21 10:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/03/21 10:07	05/03/21 10:30	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/03/21 10:07	05/03/21 10:30	1
Total TPH	<50.0	U	50.0	mg/Kg		05/03/21 10:07	05/03/21 10:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	05/03/21 10:07	05/03/21 10:30	1
o-Terphenyl	110		70 - 130	05/03/21 10:07	05/03/21 10:30	1

Lab Sample ID: LCS 880-2611/2-A

Matrix: Solid

Analysis Batch: 2605

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2611

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1224		mg/Kg		122	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1033		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: LCSD 880-2611/3-A

Matrix: Solid

Analysis Batch: 2605

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2611

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1256		mg/Kg		126	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	952.0		mg/Kg		95	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	92		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2568/1-A

Matrix: Solid

Analysis Batch: 2662

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			05/04/21 07:41	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-2568/2-A

Matrix: Solid

Analysis Batch: 2662

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	251.3		mg/Kg		101	90 - 110

Lab Sample ID: LCSD 880-2568/3-A

Matrix: Solid

Analysis Batch: 2662

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	251.0		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

GC VOA

Prep Batch: 2609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-606-1	BH06B	Total/NA	Solid	5035	
MB 880-2609/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2609/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2609/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 2612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-606-1	BH06B	Total/NA	Solid	8021B	2609
MB 880-2609/5-A	Method Blank	Total/NA	Solid	8021B	2609
LCS 880-2609/1-A	Lab Control Sample	Total/NA	Solid	8021B	2609
LCSD 880-2609/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2609

GC Semi VOA

Analysis Batch: 2605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-606-1	BH06B	Total/NA	Solid	8015B NM	2611
MB 880-2611/1-A	Method Blank	Total/NA	Solid	8015B NM	2611
LCS 880-2611/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2611
LCSD 880-2611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2611

Prep Batch: 2611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-606-1	BH06B	Total/NA	Solid	8015NM Prep	
MB 880-2611/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2611/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2611/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 2568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-606-1	BH06B	Soluble	Solid	DI Leach	
MB 880-2568/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2568/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2568/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-606-1	BH06B	Soluble	Solid	300.0	2568
MB 880-2568/1-A	Method Blank	Soluble	Solid	300.0	2568
LCS 880-2568/2-A	Lab Control Sample	Soluble	Solid	300.0	2568
LCSD 880-2568/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2568

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Client Sample ID: BH06B
Date Collected: 04/27/21 12:45
Date Received: 04/30/21 12:47

Lab Sample ID: 890-606-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2609	05/03/21 10:04	KL	XEN MID
Total/NA	Analysis	8021B		100	2612	05/03/21 16:32	KL	XEN MID
Total/NA	Prep	8015NM Prep			2611	05/03/21 10:07	DM	XEN MID
Total/NA	Analysis	8015B NM		1	2605	05/03/21 13:17	AJ	XEN MID
Soluble	Leach	DI Leach			2568	04/30/21 15:14	CH	XEN MID
Soluble	Analysis	300.0		5	2662	05/05/21 10:07	WP	XEN MID

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Laboratory: Eurofins 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	06-30-21

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-606-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-606-1	BH06B	Solid	04/27/21 12:45	04/30/21 12:47	- 9

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



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3333
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 291-3927
Hobbs, NM (575-392-7550)

Work Order No: _____

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Chain of Custody

Project Manager:	Dan Moir	Bill to: (if different)	Kyle Litrell
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(303) 887-2946	Email:	Spencer.Lo@wsp.com Korday.Kennedy@wsp.com Dan.Moir@wsp.com

Work Order Comments	
Program: UST/ST	☐ RRP ☐ Brownfields ☐ RC ☐ Superfund ☐
State of Project:	
Reporting Level II	☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐
Deliverables: EDD	☐ ADAPT ☐ Other: ☐

Project Name:	PLU 15 TWR 901H	Turn Around	ANALYSIS REQUEST					Work Order Notes
Project Number:	TE012921027	Routine ☐						Cost Center: 1665271001
P.O. Number:		Rush: <u>3 day</u>						Incident ID: NAPP2102235706
Sampler's Name:	Spencer Lo	Due Date:						Spill Date: 1/13/2021

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	Thermometer ID		
Received Intact:	(Yes) No	T-5M-22	
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	1.6
Sample Custody Seals:	Yes (No) N/A	Total Containers:	1

Number of Containers

PA 8015)

(EPA 0=8021)

le (EPA 300.0)



890-606 Chain of Custody

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

[illegible]

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 II Sn U V Zn
TC1P / SPLP 6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245.1 / 7470 / 7471 : Hg

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

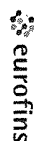
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		4/30/21/12:47	2		
3			4		
5			6		

Revised Date 05/11/18 Rev 2018

Eurofins Xenco, Carlsbad

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

Chain of Custody Record



Environment Testing America

Client Information (Sub Contract Lab)						Sampler
Client Contact						Lab PM
Shipping/Receiving						Kramer Jessica
Company						E-Mail
Eurofins Xenco						jessica.kramer@eurofins.com
Address						Accreditations Required (See note)
1211 W Florida Ave						NELAP - Louisiana NELAP - Texas
City						State of Origin:
Midland						New Mexico
State Zip						
TX, 79701						
Phone						
432-704-5440(Tel)						
Email						
Project Name						
PLU 15 TWR 901HT						
Site						
SSOW#						
Due Date Requested						
5/5/2021						
TAI Requested (days)						
Analysis Requested						
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/6035FP_Calc BTEX						
Total Number of containers						
Special Instructions/Note						
Preservation Codes						
A HCL M Hexane						
B NaOH N None						
C Zn Acetate O AsNaO2						
D Nitric Acid P NaCO3						
E NaHSO4 Q Na2SO3						
F MeOH R Na2S2O3						
G Amchlor S H2SO4						
H Ascorbic Acid T TSP Dodecylhydrate						
I Ice U Acetone						
J DI Water V MCAA						
K EDTA W pH 4-5						
L EDA Z other (specify)						
Other						

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-606-1

SDG Number: TE012921027

Login Number: 606**List Number: 1****Creator: Ordonez, Gabby****List Source: Eurofins Carlsbad**

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-606-1
SDG Number: TE012921027**Login Number: 606****List Number: 2****Creator: Kramer, Jessica****List Source: Eurofins Midland****List Creation: 05/03/21 09:55 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?	N/A	
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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-972-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

Revision: 1

For:

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

Attn: Dan Moir

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

Authorized for release by:
2/1/2022 8:26:58 AM

Jessica Kramer, Project Manager
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Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-972-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Job ID: 890-972-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-972-1

Comments

No additional comments.

Receipt

The samples were received on 7/22/2021 9:04 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 was 2.4° C.

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Client Sample ID: BH06D

Lab Sample ID: 890-972-1

Date Collected: 07/20/21 11:20

Matrix: Solid

Date Received: 07/22/21 09:04

Sample Depth: - 19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.362		0.00202	mg/Kg		07/26/21 09:45	07/26/21 18:10	1
Toluene	0.473		0.198	mg/Kg		07/26/21 16:01	07/27/21 15:03	100
Ethylbenzene	0.284		0.00202	mg/Kg		07/26/21 09:45	07/26/21 18:10	1
m-Xylene & p-Xylene	1.14		0.396	mg/Kg		07/26/21 16:01	07/27/21 15:03	100
o-Xylene	0.655		0.198	mg/Kg		07/26/21 16:01	07/27/21 15:03	100
Xylenes, Total	1.80		0.396	mg/Kg		07/26/21 16:01	07/27/21 15:03	100
Total BTEX	2.74		0.396	mg/Kg		07/26/21 16:01	07/27/21 15:03	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	336	S1+	70 - 130	07/26/21 09:45	07/26/21 18:10	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/26/21 09:45	07/26/21 18:10	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	156		49.9	mg/Kg		07/23/21 13:34	07/27/21 17:50	1
Diesel Range Organics (Over C10-C28)	179		49.9	mg/Kg		07/23/21 13:34	07/27/21 17:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/23/21 13:34	07/27/21 17:50	1
Total TPH	335		49.9	mg/Kg		07/23/21 13:34	07/27/21 17:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	07/23/21 13:34	07/27/21 17:50	1
o-Terphenyl	120		70 - 130	07/23/21 13:34	07/27/21 17:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	180		5.00	mg/Kg			07/28/21 20:39	1

Client Sample ID: BH06E

Lab Sample ID: 890-972-2

Date Collected: 07/20/21 13:27

Matrix: Solid

Date Received: 07/22/21 09:04

Sample Depth: - 23

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.151		0.00202	mg/Kg		07/26/21 09:45	07/26/21 18:31	1
Toluene	0.582		0.0998	mg/Kg		07/26/21 16:01	07/27/21 15:23	50
Ethylbenzene	0.0847		0.00202	mg/Kg		07/26/21 09:45	07/26/21 18:31	1
m-Xylene & p-Xylene	1.16		0.200	mg/Kg		07/26/21 16:01	07/27/21 15:23	50
o-Xylene	0.474		0.0998	mg/Kg		07/26/21 16:01	07/27/21 15:23	50
Xylenes, Total	1.63		0.200	mg/Kg		07/26/21 16:01	07/27/21 15:23	50
Total BTEX	2.49		0.200	mg/Kg		07/26/21 16:01	07/27/21 15:23	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	181	S1+	70 - 130	07/26/21 09:45	07/26/21 18:31	1
1,4-Difluorobenzene (Surr)	94		70 - 130	07/26/21 09:45	07/26/21 18:31	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Client Sample ID: BH06E

Lab Sample ID: 890-972-2

Date Collected: 07/20/21 13:27

Matrix: Solid

Date Received: 07/22/21 09:04

Sample Depth: - 23

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	121		50.0	mg/Kg		07/23/21 13:34	07/27/21 18:10	1
Diesel Range Organics (Over C10-C28)	128		50.0	mg/Kg		07/23/21 13:34	07/27/21 18:10	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 18:10	1
Total TPH	249		50.0	mg/Kg		07/23/21 13:34	07/27/21 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	07/23/21 13:34	07/27/21 18:10	1
o-Terphenyl	117		70 - 130	07/23/21 13:34	07/27/21 18:10	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	70.5		5.05	mg/Kg			07/28/21 20:45	1

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-972-1	BH06D	336 S1+	89
890-972-2	BH06E	181 S1+	94
LCS 880-5606/1-A	Lab Control Sample	87	82
LCS 880-5668/1-A	Lab Control Sample	106	103
LCSD 880-5606/2-A	Lab Control Sample Dup	95	116
LCSD 880-5668/2-A	Lab Control Sample Dup	113	109
MB 880-5606/5-A	Method Blank	98	89
MB 880-5668/5-A	Method Blank	123	92

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-972-1	BH06D	99	120
890-972-2	BH06E	99	117
LCS 880-5596/2-A	Lab Control Sample	112	124
LCSD 880-5596/3-A	Lab Control Sample Dup	104	116
MB 880-5596/1-A	Method Blank	89	106

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-5606/5-A

Matrix: Solid

Analysis Batch: 5653

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5606

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/26/21 09:45	07/26/21 13:18	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/26/21 09:45	07/26/21 13:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	07/26/21 09:45	07/26/21 13:18	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/26/21 09:45	07/26/21 13:18	1

Lab Sample ID: LCS 880-5606/1-A

Matrix: Solid

Analysis Batch: 5653

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1070		mg/Kg		107	70 - 130
Toluene	0.100	0.09196		mg/Kg		92	70 - 130
Ethylbenzene	0.100	0.09268		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	0.200	0.1943		mg/Kg		97	70 - 130
o-Xylene	0.100	0.09253		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: LCSD 880-5606/2-A

Matrix: Solid

Analysis Batch: 5653

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5606

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1033		mg/Kg		103	70 - 130	4	35
Toluene	0.100	0.1068		mg/Kg		107	70 - 130	15	35
Ethylbenzene	0.100	0.09698		mg/Kg		97	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.2056		mg/Kg		103	70 - 130	6	35
o-Xylene	0.100	0.09618		mg/Kg		96	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Lab Sample ID: MB 880-5668/5-A

Matrix: Solid

Analysis Batch: 5690

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5668

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/26/21 16:01	07/27/21 11:58	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

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

Lab Sample ID: MB 880-5668/5-A

Matrix: Solid

Analysis Batch: 5690

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5668

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200	mg/Kg		07/26/21 16:01	07/27/21 11:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/26/21 16:01	07/27/21 11:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/26/21 16:01	07/27/21 11:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/26/21 16:01	07/27/21 11:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/26/21 16:01	07/27/21 11:58	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		07/26/21 16:01	07/27/21 11:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	07/26/21 16:01	07/27/21 11:58	1
1,4-Difluorobenzene (Surr)	92		70 - 130	07/26/21 16:01	07/27/21 11:58	1

Lab Sample ID: LCS 880-5668/1-A

Matrix: Solid

Analysis Batch: 5690

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09657		mg/Kg		97	70 - 130
Toluene	0.100	0.08984		mg/Kg		90	70 - 130
Ethylbenzene	0.100	0.09146		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1901		mg/Kg		95	70 - 130
o-Xylene	0.100	0.09357		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-5668/2-A

Matrix: Solid

Analysis Batch: 5690

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5668

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1113		mg/Kg		111	70 - 130	14	35
Toluene	0.100	0.09878		mg/Kg		99	70 - 130	9	35
Ethylbenzene	0.100	0.1000		mg/Kg		100	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2052		mg/Kg		103	70 - 130	8	35
o-Xylene	0.100	0.1019		mg/Kg		102	70 - 130	9	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

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

Lab Sample ID: MB 880-5596/1-A

Matrix: Solid

Analysis Batch: 5685

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 5596

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		07/23/21 13:34	07/27/21 10:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 10:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 10:11	1
Total TPH	<50.0	U	50.0	mg/Kg		07/23/21 13:34	07/27/21 10:11	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	07/23/21 13:34	07/27/21 10:11	1
o-Terphenyl	106		70 - 130	07/23/21 13:34	07/27/21 10:11	1

Lab Sample ID: LCS 880-5596/2-A

Matrix: Solid

Analysis Batch: 5685

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 5596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	955.2		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1113		mg/Kg		111	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	112		70 - 130
o-Terphenyl	124		70 - 130

Lab Sample ID: LCSD 880-5596/3-A

Matrix: Solid

Analysis Batch: 5685

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 5596

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	878.7		mg/Kg		88	70 - 130	8	20
Diesel Range Organics (Over C10-C28)	1000	1035		mg/Kg		103	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	116		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-5755/1-A

Matrix: Solid

Analysis Batch: 5771

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			07/28/21 18:03	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-5755/2-A
Matrix: Solid
Analysis Batch: 5771

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	246.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-5755/3-A
Matrix: Solid
Analysis Batch: 5771

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	247.4		mg/Kg		99	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

GC VOA

Prep Batch: 5606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Total/NA	Solid	5035	
890-972-2	BH06E	Total/NA	Solid	5035	
MB 880-5606/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5606/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5606/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 5653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Total/NA	Solid	8021B	5606
890-972-2	BH06E	Total/NA	Solid	8021B	5606
MB 880-5606/5-A	Method Blank	Total/NA	Solid	8021B	5606
LCS 880-5606/1-A	Lab Control Sample	Total/NA	Solid	8021B	5606
LCSD 880-5606/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5606

Prep Batch: 5668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Total/NA	Solid	5035	
890-972-2	BH06E	Total/NA	Solid	5035	
MB 880-5668/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-5668/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-5668/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 5690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Total/NA	Solid	8021B	5668
890-972-2	BH06E	Total/NA	Solid	8021B	5668
MB 880-5668/5-A	Method Blank	Total/NA	Solid	8021B	5668
LCS 880-5668/1-A	Lab Control Sample	Total/NA	Solid	8021B	5668
LCSD 880-5668/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	5668

GC Semi VOA

Prep Batch: 5596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Total/NA	Solid	8015NM Prep	
890-972-2	BH06E	Total/NA	Solid	8015NM Prep	
MB 880-5596/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-5596/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-5596/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 5685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Total/NA	Solid	8015B NM	5596
890-972-2	BH06E	Total/NA	Solid	8015B NM	5596
MB 880-5596/1-A	Method Blank	Total/NA	Solid	8015B NM	5596
LCS 880-5596/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	5596
LCSD 880-5596/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	5596

Eurofins Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

HPLC/IC

Leach Batch: 5755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Soluble	Solid	DI Leach	
890-972-2	BH06E	Soluble	Solid	DI Leach	
MB 880-5755/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-5755/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-5755/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 5771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-972-1	BH06D	Soluble	Solid	300.0	5755
890-972-2	BH06E	Soluble	Solid	300.0	5755
MB 880-5755/1-A	Method Blank	Soluble	Solid	300.0	5755
LCS 880-5755/2-A	Lab Control Sample	Soluble	Solid	300.0	5755
LCSD 880-5755/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	5755

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Client Sample ID: BH06D

Lab Sample ID: 890-972-1

Date Collected: 07/20/21 11:20

Matrix: Solid

Date Received: 07/22/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5606	07/26/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5653	07/26/21 18:10	KL	XEN MID
Total/NA	Prep	5035			5668	07/26/21 16:01	KL	XEN MID
Total/NA	Analysis	8021B		100	5690	07/27/21 15:03	KL	XEN MID
Total/NA	Prep	8015NM Prep			5596	07/23/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5685	07/27/21 17:50	AJ	XEN MID
Soluble	Leach	DI Leach			5755	07/28/21 13:43	CH	XEN MID
Soluble	Analysis	300.0		1	5771	07/28/21 20:39	CH	XEN MID

Client Sample ID: BH06E

Lab Sample ID: 890-972-2

Date Collected: 07/20/21 13:27

Matrix: Solid

Date Received: 07/22/21 09:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5606	07/26/21 09:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5653	07/26/21 18:31	KL	XEN MID
Total/NA	Prep	5035			5668	07/26/21 16:01	KL	XEN MID
Total/NA	Analysis	8021B		50	5690	07/27/21 15:23	KL	XEN MID
Total/NA	Prep	8015NM Prep			5596	07/23/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1	5685	07/27/21 18:10	AJ	XEN MID
Soluble	Leach	DI Leach			5755	07/28/21 13:43	CH	XEN MID
Soluble	Analysis	300.0		1	5771	07/28/21 20:45	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Laboratory: Eurofins 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
8015B NM	8015NM Prep	Solid	Total TPH
8021B	5035	Solid	Total BTEX

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-972-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-972-1	BH06D	Solid	07/20/21 11:20	07/22/21 09:04	- 19
890-972-2	BH06E	Solid	07/20/21 13:27	07/22/21 09:04	- 23

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Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 291-1111
Hobbs, NM (575-392-7550)

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Chain of Custody

Work Order No: _____

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

Work Order Comments									
Program: UST/ST		☐ RP	☐ Growfields	☐ RC	☐ Superfund	☐			
State of Project:									
Reporting Level II		☐ Level III	☐ PT/UST	☐ RP	☐ Level IV	☐			
Deliverables: EDD		☐	ADAPT	☐	Other:				

Project Name:	PLU 15 TWR 901H	Turn Around	ANALYSIS REQUEST				Work Order Notes
Project Number:	TE012921027	Routine					Cost Center : 1665271001
P.O. Number:		Rush:					Incident # NAPP2102235706
Sampler's Name:	Elliot Lee	Due Date:					

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	2.0/2.4				Thermometer ID		
Received intact:	Yes	No			2NM001		
Cooler Custody Seals:	Yes	No			Correction Factor:	-0.2	
Sample Custody Seals:	Yes	No			Total Containers:		

Number of Containers

(EPA 8015)

(EPA 0=8021)

de (EPA 300.0)

890-972 Chain of Custody

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

[illegible]

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
TCLP / SPLP 6010:	8RCRA	Sb As Ba Be Cd Cr Co Cu Ph Mn Mo Ni Se Ag Tl U	1631+246+17470+7474+119

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/22/21 0900			

Revised Date 05/14/18 Rev. 2018



Chain of Custody

Work Order No:

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0550 San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (602) 998-7550 Atlanta, GA (770) 449-8800 Tampa, FL (813) 281-1111
Hobbs, NM (575) 392-7550

Page 1 of 1

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

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

Project Name:	PLU 15 TWR 901H	Turn Around		ANALYSIS REQUEST	Work Order Notes
Project Number:	TE012921027	Routine			Cost Center : 1665271001 Incident # NAPP2102235706
P.O. Number:		Rush:			
Sampler's Name:	Elliot Lee	Due Date:			

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	2.0	24			Thermometer ID		
Received intact:	Yes	No			Correction Factor:		
Cooler Custody Seals:	Yes	No			N/A		
Sample Custody Seals:	Yes	No			N/A		
					Total Containers:		

Number of Containers

(EPA 8015)

(EPA 0=8021)

de (EPA 300.0)

890-971 Chain of Custody

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

[illegible]

Circle Method(s) and Metal(s) to be analyzed		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
TCLP / SPLP 6010, 8RCRA	Sb As Ba Be Cd Cr Co Cu Ph Mn Ma Ni Se Ag Tl U		1634 / 245.1 / 2470 / 2474 / 199

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	7/22/21 10:00	<i>[Signature]</i>	<i>[Signature]</i>	7/22/21 09:00

Revised Date 05/14/18 Rev 2018



Houston, TX (281) 240-4200 Dallas, TX (214) 902-0330 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813) 839-3927
Phoenix, AZ (575-392-7550)

Page 1 of 1

Chain of Custody

Work Order No:

Project Manager:		Dan Moir		Bill to: (if different)		Kyle Littlell	
Company Name:		WSP Permian office		Company Name:		XTO Energy	
Address:		3300 North A Street		Address:		3104 e Green Street	
City, State ZIP:		Midland, Tx 79705		City, State ZIP:		Carlsbad, NM, 88220	
Phone:		(432) 236-3849		Email:		Elliot.Lee@wsp.com, Kalel.Jennings@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:	PLU 15 TWR 901H	Turn Around	ANALYSIS REQUEST					Work Order Notes
Project Number:	TE012921027	Routine ☒						Cost Center : 1665271001
P.O. Number:		Rush:						Incident # NAPP2102235706
Sampler's Name:	Elliot Lee	Due Date:						

SAMPLE RECEIPT		Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature ("C):	2.4/2.4	Thermometer ID					
Received Intact:	Yes	No	JAN 003				
Cooler Custody Seals:	Yes	No	Correction Factor:				
Sample Custody Seals:	Yes	No	Total Containers:				

Number of Containers

PA 8015)

EPA 0=8021)

le (EPA 300.0)



890-969 Chain of Custody

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

[illegible]

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631/245.1/7470/7471: Hg

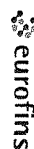
Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if those 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
		7/22/10 0802			7-22-21 0900

Eurotins Xenco, Carisbad

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

Chain of Custody Record



Environment Testing America

[illegible]

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-972-1
SDG Number: TE012921027Login Number: 972
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-972-1
SDG Number: TE012921027**Login Number: 972****List Number: 2****Creator: Phillips, Kerianna****List Source: Eurofins Midland****List Creation: 07/23/21 11:06 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1070-1

Laboratory Sample Delivery Group: TE012921027

Client Project/Site: PLU 15 TWR 901H

For:

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

Attn: Dan Moir

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

Authorized for release by:
8/12/2021 8:27:43 AM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-1070-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Qualifiers

GC VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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
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: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Job ID: 890-1070-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1070-1

Receipt

The samples were received on 8/6/2021 3:18 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.6°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH11

Lab Sample ID: 890-1070-1

Date Collected: 08/05/21 10:05

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00383		0.00199	mg/Kg		08/10/21 09:29	08/10/21 17:57	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 17:57	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 17:57	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/10/21 09:29	08/10/21 17:57	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 17:57	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/10/21 09:29	08/10/21 17:57	1
Total BTEX	<0.00398	U *1	0.00398	mg/Kg		08/10/21 09:29	08/10/21 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	08/10/21 09:29	08/10/21 17:57	1
1,4-Difluorobenzene (Surr)	99		70 - 130	08/10/21 09:29	08/10/21 17:57	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		08/10/21 08:52	08/10/21 15:33	1
Diesel Range Organics (Over C10-C28)	170		49.8	mg/Kg		08/10/21 08:52	08/10/21 15:33	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/10/21 08:52	08/10/21 15:33	1
Total TPH	170		49.8	mg/Kg		08/10/21 08:52	08/10/21 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	08/10/21 08:52	08/10/21 15:33	1
o-Terphenyl	115		70 - 130	08/10/21 08:52	08/10/21 15:33	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	817		5.04	mg/Kg			08/10/21 21:37	1

Client Sample ID: BH11A

Lab Sample ID: 890-1070-2

Date Collected: 08/05/21 10:25

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.20		0.200	mg/Kg		08/11/21 09:19	08/12/21 03:49	100
Toluene	20.0		0.200	mg/Kg		08/11/21 09:19	08/12/21 03:49	100
Ethylbenzene	3.24		0.200	mg/Kg		08/11/21 09:19	08/12/21 03:49	100
m-Xylene & p-Xylene	29.9		0.399	mg/Kg		08/11/21 09:19	08/12/21 03:49	100
o-Xylene	7.63		0.200	mg/Kg		08/11/21 09:19	08/12/21 03:49	100
Xylenes, Total	0.0130		0.00397	mg/Kg		08/10/21 09:29	08/10/21 18:18	1
Total BTEX	63.0		0.399	mg/Kg		08/11/21 09:19	08/12/21 03:49	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130	08/11/21 09:19	08/12/21 03:49	100
1,4-Difluorobenzene (Surr)	126		70 - 130	08/11/21 09:19	08/12/21 03:49	100

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH11A

Lab Sample ID: 890-1070-2

Date Collected: 08/05/21 10:25

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 8

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	1770		50.0	mg/Kg		08/10/21 08:52	08/10/21 16:16	1
Diesel Range Organics (Over C10-C28)	2050		50.0	mg/Kg		08/10/21 08:52	08/10/21 16:16	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 16:16	1
Total TPH	3820		50.0	mg/Kg		08/10/21 08:52	08/10/21 16:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	08/10/21 08:52	08/10/21 16:16	1
o-Terphenyl	84		70 - 130	08/10/21 08:52	08/10/21 16:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2850		24.9	mg/Kg			08/10/21 21:42	5

Client Sample ID: BH11B

Lab Sample ID: 890-1070-3

Date Collected: 08/05/21 10:45

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.390		0.00200	mg/Kg		08/10/21 09:29	08/10/21 18:39	1
Toluene	1.42		0.200	mg/Kg		08/11/21 09:19	08/12/21 04:10	100
Ethylbenzene	0.256		0.00200	mg/Kg		08/10/21 09:29	08/10/21 18:39	1
m-Xylene & p-Xylene	2.93		0.399	mg/Kg		08/11/21 09:19	08/12/21 04:10	100
o-Xylene	0.400		0.200	mg/Kg		08/11/21 09:19	08/12/21 04:10	100
Xylenes, Total	3.33		0.399	mg/Kg		08/11/21 09:19	08/12/21 04:10	100
Total BTEX	4.75		0.399	mg/Kg		08/11/21 09:19	08/12/21 04:10	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	237	S1+	70 - 130	08/10/21 09:29	08/10/21 18:39	1
1,4-Difluorobenzene (Surr)	139	S1+	70 - 130	08/10/21 09:29	08/10/21 18:39	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	213		50.0	mg/Kg		08/10/21 08:52	08/10/21 16:40	1
Diesel Range Organics (Over C10-C28)	231		50.0	mg/Kg		08/10/21 08:52	08/10/21 16:40	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 16:40	1
Total TPH	444		50.0	mg/Kg		08/10/21 08:52	08/10/21 16:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	08/10/21 08:52	08/10/21 16:40	1
o-Terphenyl	112		70 - 130	08/10/21 08:52	08/10/21 16:40	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	433		4.99	mg/Kg			08/10/21 21:48	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH11C

Lab Sample ID: 890-1070-4

Date Collected: 08/05/21 11:54

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 17

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.202	U	0.202	mg/Kg		08/11/21 09:19	08/12/21 04:31	100
Toluene	0.340		0.202	mg/Kg		08/11/21 09:19	08/12/21 04:31	100
Ethylbenzene	0.195		0.00198	mg/Kg		08/10/21 09:29	08/10/21 18:59	1
m-Xylene & p-Xylene	1.05		0.403	mg/Kg		08/11/21 09:19	08/12/21 04:31	100
o-Xylene	0.401		0.202	mg/Kg		08/11/21 09:19	08/12/21 04:31	100
Xylenes, Total	1.45		0.403	mg/Kg		08/11/21 09:19	08/12/21 04:31	100
Total BTEX	1.79		0.403	mg/Kg		08/11/21 09:19	08/12/21 04:31	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	170	S1+	70 - 130	08/10/21 09:29	08/10/21 18:59	1
1,4-Difluorobenzene (Surr)	88		70 - 130	08/10/21 09:29	08/10/21 18:59	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	248		49.9	mg/Kg		08/10/21 08:52	08/10/21 17:01	1
Diesel Range Organics (Over C10-C28)	276		49.9	mg/Kg		08/10/21 08:52	08/10/21 17:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 17:01	1
Total TPH	524		49.9	mg/Kg		08/10/21 08:52	08/10/21 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	08/10/21 08:52	08/10/21 17:01	1
o-Terphenyl	113		70 - 130	08/10/21 08:52	08/10/21 17:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	763		5.02	mg/Kg			08/10/21 21:53	1

Client Sample ID: BH12

Lab Sample ID: 890-1070-5

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/06/21 15:18

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		08/10/21 09:29	08/10/21 19:20	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 19:20	1
Ethylbenzene	0.00362		0.00199	mg/Kg		08/10/21 09:29	08/10/21 19:20	1
m-Xylene & p-Xylene	0.0102		0.00398	mg/Kg		08/10/21 09:29	08/10/21 19:20	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 19:20	1
Xylenes, Total	0.0102		0.00398	mg/Kg		08/10/21 09:29	08/10/21 19:20	1
Total BTEX	0.0138	*1	0.00398	mg/Kg		08/10/21 09:29	08/10/21 19:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	08/10/21 09:29	08/10/21 19:20	1
1,4-Difluorobenzene (Surr)	113		70 - 130	08/10/21 09:29	08/10/21 19:20	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH12

Lab Sample ID: 890-1070-5

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/06/21 15:18

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		08/10/21 08:52	08/10/21 17:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 17:23	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 17:23	1
Total TPH	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 17:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130	08/10/21 08:52	08/10/21 17:23	1
o-Terphenyl	106		70 - 130	08/10/21 08:52	08/10/21 17:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.3		4.99	mg/Kg			08/10/21 22:10	1

Client Sample ID: BH12A

Lab Sample ID: 890-1070-6

Date Collected: 08/05/21 13:10

Matrix: Solid

Date Received: 08/06/21 15:18

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		08/10/21 09:29	08/10/21 19:41	1
Toluene	0.00456		0.00199	mg/Kg		08/10/21 09:29	08/10/21 19:41	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 19:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/10/21 09:29	08/10/21 19:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 19:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/10/21 09:29	08/10/21 19:41	1
Total BTEX	0.00456	*1	0.00398	mg/Kg		08/10/21 09:29	08/10/21 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130	08/10/21 09:29	08/10/21 19:41	1
1,4-Difluorobenzene (Surr)	130		70 - 130	08/10/21 09:29	08/10/21 19:41	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		08/10/21 08:52	08/10/21 17:45	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/10/21 08:52	08/10/21 17:45	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/10/21 08:52	08/10/21 17:45	1
Total TPH	<49.8	U	49.8	mg/Kg		08/10/21 08:52	08/10/21 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	08/10/21 08:52	08/10/21 17:45	1
o-Terphenyl	98		70 - 130	08/10/21 08:52	08/10/21 17:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.0		5.00	mg/Kg			08/10/21 22:16	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH12B

Lab Sample ID: 890-1070-7

Date Collected: 08/05/21 13:30

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00248		0.00201	mg/Kg		08/10/21 09:29	08/10/21 20:01	1
Toluene	0.00353		0.00201	mg/Kg		08/10/21 09:29	08/10/21 20:01	1
Ethylbenzene	0.00675		0.00201	mg/Kg		08/10/21 09:29	08/10/21 20:01	1
m-Xylene & p-Xylene	0.0131		0.00402	mg/Kg		08/10/21 09:29	08/10/21 20:01	1
o-Xylene	0.0100		0.00201	mg/Kg		08/10/21 09:29	08/10/21 20:01	1
Xylenes, Total	0.0231		0.00402	mg/Kg		08/10/21 09:29	08/10/21 20:01	1
Total BTEX	0.0359	*1	0.00402	mg/Kg		08/10/21 09:29	08/10/21 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	176	S1+	70 - 130	08/10/21 09:29	08/10/21 20:01	1
1,4-Difluorobenzene (Surr)	138	S1+	70 - 130	08/10/21 09:29	08/10/21 20:01	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 18:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 18:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 18:07	1
Total TPH	<49.9	U	49.9	mg/Kg		08/10/21 08:52	08/10/21 18:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130	08/10/21 08:52	08/10/21 18:07	1
o-Terphenyl	102		70 - 130	08/10/21 08:52	08/10/21 18:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.8		5.00	mg/Kg			08/10/21 22:21	1

Client Sample ID: BH12C

Lab Sample ID: 890-1070-8

Date Collected: 08/05/21 16:32

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 12

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/10/21 09:29	08/10/21 20:22	1
Toluene	0.00959		0.00199	mg/Kg		08/10/21 09:29	08/10/21 20:22	1
Ethylbenzene	0.00407		0.00199	mg/Kg		08/10/21 09:29	08/10/21 20:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/10/21 09:29	08/10/21 20:22	1
o-Xylene	0.00446		0.00199	mg/Kg		08/10/21 09:29	08/10/21 20:22	1
Xylenes, Total	0.00446		0.00398	mg/Kg		08/10/21 09:29	08/10/21 20:22	1
Total BTEX	0.0181	*1	0.00398	mg/Kg		08/10/21 09:29	08/10/21 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	08/10/21 09:29	08/10/21 20:22	1
1,4-Difluorobenzene (Surr)	118		70 - 130	08/10/21 09:29	08/10/21 20:22	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH12C

Lab Sample ID: 890-1070-8

Date Collected: 08/05/21 16:32

Matrix: Solid

Date Received: 08/06/21 15:18

Sample Depth: - 12

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		08/10/21 08:52	08/10/21 18:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 18:28	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 18:28	1
Total TPH	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 18:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	08/10/21 08:52	08/10/21 18:28	1
o-Terphenyl	104		70 - 130	08/10/21 08:52	08/10/21 18:28	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.9		4.98	mg/Kg			08/10/21 22:27	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

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)
880-4958-A-1-A MS	Matrix Spike	98	105
880-4958-A-1-B MSD	Matrix Spike Duplicate	108	86
890-1070-1	BH11	112	99
890-1070-2	BH11A	138 S1+	126
890-1070-3	BH11B	237 S1+	139 S1+
890-1070-4	BH11C	170 S1+	88
890-1070-5	BH12	104	113
890-1070-6	BH12A	126	130
890-1070-7	BH12B	176 S1+	138 S1+
890-1070-8	BH12C	113	118
890-1082-A-3-B MS	Matrix Spike	108	94
890-1082-A-3-C MSD	Matrix Spike Duplicate	114	106
LCS 880-6289/1-A	Lab Control Sample	83	71
LCS 880-6332/1-A	Lab Control Sample	102	108
LCS 880-6357/1-A	Lab Control Sample	106	76
LCSD 880-6289/2-A	Lab Control Sample Dup	116	115
LCSD 880-6332/2-A	Lab Control Sample Dup	91	110
LCSD 880-6357/2-A	Lab Control Sample Dup	102	80
MB 880-6289/5-A	Method Blank	102	101
MB 880-6357/5-A	Method Blank	115	101
MB 880-6379/5-A	Method Blank	97	105
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
890-1072-A-3-C MSD	Matrix Spike Duplicate		
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)
890-1065-A-1-C MS	Matrix Spike	90	87
890-1065-A-1-D MSD	Matrix Spike Duplicate	85	85
890-1070-1	BH11	97	115
890-1070-2	BH11A	117	84
890-1070-3	BH11B	96	112
890-1070-4	BH11C	98	113
890-1070-5	BH12	88	106

Eurofins Xenco, Carlsbad

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**Matrix: Solid****Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1070-6	BH12A	83	98
890-1070-7	BH12B	84	102
890-1070-8	BH12C	85	104
LCS 880-6283/2-A	Lab Control Sample	85	92
LCSD 880-6283/3-A	Lab Control Sample Dup	88	95
MB 880-6283/1-A	Method Blank	92	106

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-6289/5-A

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6289

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/10/21 09:29	08/10/21 13:06	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/10/21 09:29	08/10/21 13:06	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/10/21 09:29	08/10/21 13:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/10/21 09:29	08/10/21 13:06	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/10/21 09:29	08/10/21 13:06	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/10/21 09:29	08/10/21 13:06	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/10/21 09:29	08/10/21 13:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	08/10/21 09:29	08/10/21 13:06	1
1,4-Difluorobenzene (Surr)	101		70 - 130	08/10/21 09:29	08/10/21 13:06	1

Lab Sample ID: LCS 880-6289/1-A

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08493		mg/Kg		85	70 - 130
Toluene	0.100	0.08543		mg/Kg		85	70 - 130
Ethylbenzene	0.100	0.08906		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1702		mg/Kg		85	70 - 130
o-Xylene	0.100	0.07677		mg/Kg		77	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		70 - 130
1,4-Difluorobenzene (Surr)	71		70 - 130

Lab Sample ID: LCSD 880-6289/2-A

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1062		mg/Kg		106	70 - 130	22	35
Toluene	0.100	0.1103		mg/Kg		110	70 - 130	25	35
Ethylbenzene	0.100	0.1265		mg/Kg		127	70 - 130	35	35
m-Xylene & p-Xylene	0.200	0.2321		mg/Kg		116	70 - 130	31	35
o-Xylene	0.100	0.1075		mg/Kg		107	70 - 130	33	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	115		70 - 130

Lab Sample ID: 890-1072-A-3-C MSD

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.05544		mg/Kg					

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

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

Lab Sample ID: 890-1072-A-3-C MSD

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	<0.00200	U	0.0996	0.06049		mg/Kg					
Ethylbenzene	<0.00200	U	0.0996	0.05131		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.199	0.09880		mg/Kg					
o-Xylene	<0.00200	U	0.0996	0.05495		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

Lab Sample ID: LCS 880-6332/1-A

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09201		mg/Kg		92	70 - 130
Toluene	0.100	0.09069		mg/Kg		91	70 - 130
Ethylbenzene	0.100	0.1019		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.1833		mg/Kg		92	70 - 130
o-Xylene	0.100	0.08900		mg/Kg		89	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-6332/2-A

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6332

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08778		mg/Kg		88	70 - 130	5	35
Toluene	0.100	0.08157		mg/Kg		82	70 - 130	11	35
Ethylbenzene	0.100	0.09251		mg/Kg		93	70 - 130	10	35
m-Xylene & p-Xylene	0.200	0.1666		mg/Kg		83	70 - 130	10	35
o-Xylene	0.100	0.07955		mg/Kg		80	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	110		70 - 130

Lab Sample ID: 880-4958-A-1-A MS

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 6332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00198	U F1	0.100	0.04481	F1	mg/Kg		44	70 - 130
Toluene	<0.00198	U F1	0.100	0.05403	F1	mg/Kg		54	70 - 130
Ethylbenzene	<0.00198	U F1	0.100	0.05297	F1	mg/Kg		52	70 - 130
m-Xylene & p-Xylene	<0.00397	U F1	0.200	0.1040	F1	mg/Kg		52	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

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

Lab Sample ID: 880-4958-A-1-A MS

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 6332

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
o-Xylene	<0.00198	U F1	0.100	0.05796	F1	mg/Kg		58	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	98		70 - 130						
1,4-Difluorobenzene (Surr)	105		70 - 130						

Lab Sample ID: 880-4958-A-1-B MSD

Matrix: Solid

Analysis Batch: 6294

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6332

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00198	U F1	0.0996	0.05610	F1	mg/Kg		56	70 - 130	22	35
Toluene	<0.00198	U F1	0.0996	0.05925	F1	mg/Kg		59	70 - 130	9	35
Ethylbenzene	<0.00198	U F1	0.0996	0.06843	F1	mg/Kg		68	70 - 130	25	35
m-Xylene & p-Xylene	<0.00397	U F1	0.199	0.1277	F1	mg/Kg		64	70 - 130	20	35
o-Xylene	<0.00198	U F1	0.0996	0.06998		mg/Kg		70	70 - 130	19	35
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	108		70 - 130								
1,4-Difluorobenzene (Surr)	86		70 - 130								

Lab Sample ID: MB 880-6357/5-A

Matrix: Solid

Analysis Batch: 6386

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6357

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/11/21 09:19	08/12/21 01:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/11/21 09:19	08/12/21 01:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/11/21 09:19	08/12/21 01:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/11/21 09:19	08/12/21 01:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/11/21 09:19	08/12/21 01:04	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/11/21 09:19	08/12/21 01:04	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/11/21 09:19	08/12/21 01:04	1
Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac		
4-Bromofluorobenzene (Surr)	115		70 - 130	08/11/21 09:19	08/12/21 01:04	1		
1,4-Difluorobenzene (Surr)	101		70 - 130	08/11/21 09:19	08/12/21 01:04	1		

Lab Sample ID: LCS 880-6357/1-A

Matrix: Solid

Analysis Batch: 6386

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6357

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09136		mg/Kg		91	70 - 130
Toluene	0.100	0.09883		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.1126		mg/Kg		113	70 - 130
m-Xylene & p-Xylene	0.200	0.1967		mg/Kg		98	70 - 130
o-Xylene	0.100	0.09877		mg/Kg		99	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

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

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	76		70 - 130

Lab Sample ID: LCSD 880-6357/2-A

Matrix: Solid

Analysis Batch: 6386

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6357

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08213		mg/Kg		82	70 - 130	11	35
Toluene	0.100	0.09720		mg/Kg		97	70 - 130	2	35
Ethylbenzene	0.100	0.09621		mg/Kg		96	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.1824		mg/Kg		91	70 - 130	8	35
o-Xylene	0.100	0.09134		mg/Kg		91	70 - 130	8	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	80		70 - 130

Lab Sample ID: 890-1082-A-3-B MS

Matrix: Solid

Analysis Batch: 6386

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 6357

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.07895		mg/Kg		79	70 - 130		
Toluene	0.00265		0.0998	0.09241		mg/Kg		90	70 - 130		
Ethylbenzene	<0.00199	U	0.0998	0.08548		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1502		mg/Kg		75	70 - 130		
o-Xylene	<0.00199	U F1	0.0998	0.06808	F1	mg/Kg		68	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-1082-A-3-C MSD

Matrix: Solid

Analysis Batch: 6386

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6357

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0990	0.06260	F1	mg/Kg		63	70 - 130	23	35
Toluene	0.00265		0.0990	0.09657		mg/Kg		95	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.0990	0.09443		mg/Kg		94	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U	0.198	0.1708		mg/Kg		86	70 - 130	13	35
o-Xylene	<0.00199	U F1	0.0990	0.07932		mg/Kg		80	70 - 130	15	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	106		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

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

Lab Sample ID: MB 880-6379/5-A

Matrix: Solid

Analysis Batch: 6386

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6379

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/11/21 10:08	08/11/21 14:05	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/11/21 10:08	08/11/21 14:05	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/11/21 10:08	08/11/21 14:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/11/21 10:08	08/11/21 14:05	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/11/21 10:08	08/11/21 14:05	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/11/21 10:08	08/11/21 14:05	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		08/11/21 10:08	08/11/21 14:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	08/11/21 10:08	08/11/21 14:05	1
1,4-Difluorobenzene (Surr)	105		70 - 130	08/11/21 10:08	08/11/21 14:05	1

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

Lab Sample ID: MB 880-6283/1-A

Matrix: Solid

Analysis Batch: 6274

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 6283

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		08/10/21 08:52	08/10/21 10:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 10:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 10:26	1
Total TPH	<50.0	U	50.0	mg/Kg		08/10/21 08:52	08/10/21 10:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	08/10/21 08:52	08/10/21 10:26	1
o-Terphenyl	106		70 - 130	08/10/21 08:52	08/10/21 10:26	1

Lab Sample ID: LCS 880-6283/2-A

Matrix: Solid

Analysis Batch: 6274

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 6283

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	867.7		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1043		mg/Kg		104	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	92		70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

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

Lab Sample ID: LCSD 880-6283/3-A

Matrix: Solid

Analysis Batch: 6274

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 6283

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	875.1		mg/Kg		88	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1085		mg/Kg		109	70 - 130	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	88		70 - 130						
o-Terphenyl	95		70 - 130						

Lab Sample ID: 890-1065-A-1-C MS

Matrix: Solid

Analysis Batch: 6274

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 6283

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	1083		mg/Kg		109	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U F1	995	1364	F1	mg/Kg		137	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	90		70 - 130								
o-Terphenyl	87		70 - 130								

Lab Sample ID: 890-1065-A-1-D MSD

Matrix: Solid

Analysis Batch: 6274

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 6283

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	998	1063		mg/Kg		106	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<50.0	U F1	998	1346	F1	mg/Kg		135	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	85		70 - 130								
o-Terphenyl	85		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-6255/1-A

Matrix: Solid

Analysis Batch: 6331

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			08/10/21 21:03	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-6255/2-A

Matrix: Solid

Analysis Batch: 6331

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	250.0		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-6255/3-A

Matrix: Solid

Analysis Batch: 6331

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	249.8		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-4833-A-9-C MS

Matrix: Solid

Analysis Batch: 6331

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	2010		2480	4558		mg/Kg		103	90 - 110		

Lab Sample ID: 880-4833-A-9-D MSD

Matrix: Solid

Analysis Batch: 6331

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	2010		2480	4557		mg/Kg		103	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

GC VOA

Prep Batch: 6289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-1	BH11	Total/NA	Solid	5035	
890-1070-2	BH11A	Total/NA	Solid	5035	
890-1070-3	BH11B	Total/NA	Solid	5035	
890-1070-4	BH11C	Total/NA	Solid	5035	
890-1070-5	BH12	Total/NA	Solid	5035	
890-1070-6	BH12A	Total/NA	Solid	5035	
890-1070-7	BH12B	Total/NA	Solid	5035	
890-1070-8	BH12C	Total/NA	Solid	5035	
MB 880-6289/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6289/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6289/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1072-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 6294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-1	BH11	Total/NA	Solid	8021B	6289
890-1070-2	BH11A	Total/NA	Solid	8021B	6289
890-1070-3	BH11B	Total/NA	Solid	8021B	6289
890-1070-4	BH11C	Total/NA	Solid	8021B	6289
890-1070-5	BH12	Total/NA	Solid	8021B	6289
890-1070-6	BH12A	Total/NA	Solid	8021B	6289
890-1070-7	BH12B	Total/NA	Solid	8021B	6289
890-1070-8	BH12C	Total/NA	Solid	8021B	6289
MB 880-6289/5-A	Method Blank	Total/NA	Solid	8021B	6289
LCS 880-6289/1-A	Lab Control Sample	Total/NA	Solid	8021B	6289
LCS 880-6332/1-A	Lab Control Sample	Total/NA	Solid	8021B	6332
LCSD 880-6289/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6289
LCSD 880-6332/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6332
880-4958-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	6332
880-4958-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	6332
890-1072-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	6289

Prep Batch: 6332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 880-6332/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6332/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-4958-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-4958-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 6357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-2	BH11A	Total/NA	Solid	5035	
890-1070-3	BH11B	Total/NA	Solid	5035	
890-1070-4	BH11C	Total/NA	Solid	5035	
MB 880-6357/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-6357/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-6357/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1082-A-3-B MS	Matrix Spike	Total/NA	Solid	5035	
890-1082-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

GC VOA

Prep Batch: 6379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-6379/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 6386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-2	BH11A	Total/NA	Solid	8021B	6357
890-1070-3	BH11B	Total/NA	Solid	8021B	6357
890-1070-4	BH11C	Total/NA	Solid	8021B	6357
MB 880-6357/5-A	Method Blank	Total/NA	Solid	8021B	6357
MB 880-6379/5-A	Method Blank	Total/NA	Solid	8021B	6379
LCS 880-6357/1-A	Lab Control Sample	Total/NA	Solid	8021B	6357
LCSD 880-6357/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	6357
890-1082-A-3-B MS	Matrix Spike	Total/NA	Solid	8021B	6357
890-1082-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	6357

GC Semi VOA

Analysis Batch: 6274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-1	BH11	Total/NA	Solid	8015B NM	6283
890-1070-2	BH11A	Total/NA	Solid	8015B NM	6283
890-1070-3	BH11B	Total/NA	Solid	8015B NM	6283
890-1070-4	BH11C	Total/NA	Solid	8015B NM	6283
890-1070-5	BH12	Total/NA	Solid	8015B NM	6283
890-1070-6	BH12A	Total/NA	Solid	8015B NM	6283
890-1070-7	BH12B	Total/NA	Solid	8015B NM	6283
890-1070-8	BH12C	Total/NA	Solid	8015B NM	6283
MB 880-6283/1-A	Method Blank	Total/NA	Solid	8015B NM	6283
LCS 880-6283/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	6283
LCSD 880-6283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	6283
890-1065-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	6283
890-1065-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	6283

Prep Batch: 6283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-1	BH11	Total/NA	Solid	8015NM Prep	
890-1070-2	BH11A	Total/NA	Solid	8015NM Prep	
890-1070-3	BH11B	Total/NA	Solid	8015NM Prep	
890-1070-4	BH11C	Total/NA	Solid	8015NM Prep	
890-1070-5	BH12	Total/NA	Solid	8015NM Prep	
890-1070-6	BH12A	Total/NA	Solid	8015NM Prep	
890-1070-7	BH12B	Total/NA	Solid	8015NM Prep	
890-1070-8	BH12C	Total/NA	Solid	8015NM Prep	
MB 880-6283/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-6283/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-6283/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1065-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1065-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

HPLC/IC

Leach Batch: 6255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-1	BH11	Soluble	Solid	DI Leach	
890-1070-2	BH11A	Soluble	Solid	DI Leach	
890-1070-3	BH11B	Soluble	Solid	DI Leach	
890-1070-4	BH11C	Soluble	Solid	DI Leach	
890-1070-5	BH12	Soluble	Solid	DI Leach	
890-1070-6	BH12A	Soluble	Solid	DI Leach	
890-1070-7	BH12B	Soluble	Solid	DI Leach	
890-1070-8	BH12C	Soluble	Solid	DI Leach	
MB 880-6255/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-6255/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-6255/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-4833-A-9-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-4833-A-9-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 6331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1070-1	BH11	Soluble	Solid	300.0	6255
890-1070-2	BH11A	Soluble	Solid	300.0	6255
890-1070-3	BH11B	Soluble	Solid	300.0	6255
890-1070-4	BH11C	Soluble	Solid	300.0	6255
890-1070-5	BH12	Soluble	Solid	300.0	6255
890-1070-6	BH12A	Soluble	Solid	300.0	6255
890-1070-7	BH12B	Soluble	Solid	300.0	6255
890-1070-8	BH12C	Soluble	Solid	300.0	6255
MB 880-6255/1-A	Method Blank	Soluble	Solid	300.0	6255
LCS 880-6255/2-A	Lab Control Sample	Soluble	Solid	300.0	6255
LCSD 880-6255/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	6255
880-4833-A-9-C MS	Matrix Spike	Soluble	Solid	300.0	6255
880-4833-A-9-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	6255

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH11

Lab Sample ID: 890-1070-1

Date Collected: 08/05/21 10:05

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 17:57	KL	XEN MID
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 15:33	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		1	6331	08/10/21 21:37	CH	XEN MID

Client Sample ID: BH11A

Lab Sample ID: 890-1070-2

Date Collected: 08/05/21 10:25

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 18:18	KL	XEN MID
Total/NA	Prep	5035			6357	08/11/21 09:19	KL	XEN MID
Total/NA	Analysis	8021B		100	6386	08/12/21 03:49	KL	XEN MID
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 16:16	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		5	6331	08/10/21 21:42	CH	XEN MID

Client Sample ID: BH11B

Lab Sample ID: 890-1070-3

Date Collected: 08/05/21 10:45

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 18:39	KL	XEN MID
Total/NA	Prep	5035			6357	08/11/21 09:19	KL	XEN MID
Total/NA	Analysis	8021B		100	6386	08/12/21 04:10	KL	XEN MID
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 16:40	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		1	6331	08/10/21 21:48	CH	XEN MID

Client Sample ID: BH11C

Lab Sample ID: 890-1070-4

Date Collected: 08/05/21 11:54

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 18:59	KL	XEN MID
Total/NA	Prep	5035			6357	08/11/21 09:19	KL	XEN MID
Total/NA	Analysis	8021B		100	6386	08/12/21 04:31	KL	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH11C

Lab Sample ID: 890-1070-4

Date Collected: 08/05/21 11:54

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 17:01	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		1	6331	08/10/21 21:53	CH	XEN MID

Client Sample ID: BH12

Lab Sample ID: 890-1070-5

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 19:20	KL	XEN MID
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 17:23	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		1	6331	08/10/21 22:10	CH	XEN MID

Client Sample ID: BH12A

Lab Sample ID: 890-1070-6

Date Collected: 08/05/21 13:10

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 19:41	KL	XEN MID
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 17:45	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		1	6331	08/10/21 22:16	CH	XEN MID

Client Sample ID: BH12B

Lab Sample ID: 890-1070-7

Date Collected: 08/05/21 13:30

Matrix: Solid

Date Received: 08/06/21 15:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 20:01	KL	XEN MID
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 18:07	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		1	6331	08/10/21 22:21	CH	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Client Sample ID: BH12C
Date Collected: 08/05/21 16:32
Date Received: 08/06/21 15:18

Lab Sample ID: 890-1070-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			6289	08/10/21 09:29	KL	XEN MID
Total/NA	Analysis	8021B		1	6294	08/10/21 20:22	KL	XEN MID
Total/NA	Prep	8015NM Prep			6283	08/10/21 08:52	DM	XEN MID
Total/NA	Analysis	8015B NM		1	6274	08/10/21 18:28	AJ	XEN MID
Soluble	Leach	DI Leach			6255	08/09/21 14:41	CH	XEN MID
Soluble	Analysis	300.0		1	6331	08/10/21 22:27	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.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-20-21	06-30-22

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1070-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1070-1	BH11	Solid	08/05/21 10:05	08/06/21 15:18	- 2
890-1070-2	BH11A	Solid	08/05/21 10:25	08/06/21 15:18	- 8
890-1070-3	BH11B	Solid	08/05/21 10:45	08/06/21 15:18	- 12
890-1070-4	BH11C	Solid	08/05/21 11:54	08/06/21 15:18	- 17
890-1070-5	BH12	Solid	08/05/21 13:00	08/06/21 15:18	- 2
890-1070-6	BH12A	Solid	08/05/21 13:10	08/06/21 15:18	- 4
890-1070-7	BH12B	Solid	08/05/21 13:30	08/06/21 15:18	- 8
890-1070-8	BH12C	Solid	08/05/21 16:32	08/06/21 15:18	- 12



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)

Chain of Custody

Work Order No: _____

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

Program: UST/PST ☐ RP ☐ Brownfields ☐ RC ☐ Deepfund ☐ State of Project: Reporting: Level II ☐ Level III ☐ PST/UST ☐ RP ☐ Level IV ☐ Deliverables: EDD ☐ ADAPT ☐ Other: _____		Work Order Comments
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Project Name:	PLU 15 TWR 901H	Turn Around		ANALYSIS REQUEST	 890-1070 Chain of Custody	Work Order Notes Cost Center : 1665271001 Incident # NAPP2102235706
Project Number:	TE012921027	Routine	☒			
P.O. Number:		Rush:				
Sampler's Name:	Elliott Lee	Due Date:				

SAMPLE RECEIPT Temperature (°C): 4.8/4.6 Received Intact: Yes ☒ No ☐ Cooler Custody Seals: Yes ☒ No ☐ Sample Custody Seals: Yes ☒ No ☐	Temp Blank:	Yes ☐ No ☒	Wet Ice:	Yes ☐ No ☒	Thermometer ID:	TMM-007	TAT starts the day received by the lab, if received by 4:30pm
	Correction Factor:						
	Total Containers:						

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers													
					TPH (EPA 8015)	BTEX (EPA 0-8021)	Chloride (EPA 300.0)											
BH11	S	8/5/2021	10:05	2'	1	X	X	X										DISCRETE
BH11A	S	8/5/2021	10:25	8'	1	X	X	X										DISCRETE
BH11B	S	8/5/2021	10:45	12'	1	X	X	X										DISCRETE
BH11C	S	8/5/2021	11:54	17'	1	X	X	X										DISCRETE
BH12	S	8/5/2021	13:00	2'	1	X	X	X										DISCRETE
BH12A	S	8/5/2021	13:10	4'	1	X	X	X										DISCRETE
BH12B	S	8/5/2021	13:30	8'	1	X	X	X										DISCRETE
BH12C	S	8/5/2021	16:32	12'	1	X	X	X										DISCRETE

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1634124511747017471.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
		8-21-2021			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1070-1

SDG Number: TE012921027

Login Number: 1070

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: 890-1070-1

SDG Number: TE012921027

Login Number: 1070

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland

List Creation: 08/10/21 11:13 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1727-1
Laboratory Sample Delivery Group: TE012921027
Client Project/Site: PLU 15 TWR 901H

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

Attn: Kalei Jennings

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

Authorized for release by:
12/20/2021 7:47:51 PM

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

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-1727-1
SDG: TE012921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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
*1	LCS/LCSD RPD exceeds control limits.
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
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: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Job ID: 890-1727-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1727-1

Receipt

The samples were received on 12/16/2021 8:30 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 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

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-15088 and analytical batch 880-15103 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10

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

HPLC/IC

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: FS01

Lab Sample ID: 890-1727-1

Date Collected: 12/14/21 13:43

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 12.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 23:48	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 23:48	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 23:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 23:48	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 23:48	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 23:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	12/17/21 07:30	12/17/21 23:48	1
1,4-Difluorobenzene (Surr)	102		70 - 130	12/17/21 07:30	12/17/21 23:48	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 15:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 15:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130	12/17/21 14:05	12/18/21 15:59	1
o-Terphenyl	106		70 - 130	12/17/21 14:05	12/18/21 15:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.38		4.95	mg/Kg			12/18/21 12:40	1

Client Sample ID: FS02

Lab Sample ID: 890-1727-2

Date Collected: 12/15/21 12:45

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 6.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/18/21 00:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:09	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/18/21 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130	12/17/21 07:30	12/18/21 00:09	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: FS02

Lab Sample ID: 890-1727-2

Date Collected: 12/15/21 12:45

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 6.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	111		70 - 130	12/17/21 07:30	12/18/21 00:09	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 17:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 17:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 17:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130			12/17/21 14:05	12/18/21 17:01	1
o-Terphenyl	112		70 - 130			12/17/21 14:05	12/18/21 17:01	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.8		5.05	mg/Kg			12/18/21 13:13	1

Client Sample ID: SW01

Lab Sample ID: 890-1727-3

Date Collected: 12/15/21 09:06

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0206		0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:29	1
Toluene	0.235		0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:29	1
Ethylbenzene	0.120		0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:29	1
m-Xylene & p-Xylene	0.694		0.00401	mg/Kg		12/17/21 07:30	12/18/21 00:29	1
o-Xylene	0.212		0.00200	mg/Kg		12/17/21 07:30	12/18/21 00:29	1
Xylenes, Total	0.906		0.00401	mg/Kg		12/17/21 07:30	12/18/21 00:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	12/17/21 07:30	12/18/21 00:29	1
1,4-Difluorobenzene (Surr)	94		70 - 130	12/17/21 07:30	12/18/21 00:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1.28		0.00401	mg/Kg			12/20/21 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1080		50.0	mg/Kg			12/17/21 09:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW01

Lab Sample ID: 890-1727-3

Date Collected: 12/15/21 09:06

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 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	274	*1	50.0	mg/Kg		12/17/21 14:05	12/18/21 17:23	1
Diesel Range Organics (Over C10-C28)	729		50.0	mg/Kg		12/17/21 14:05	12/18/21 17:23	1
Oil Range Organics (Over C28-C36)	72.3		50.0	mg/Kg		12/17/21 14:05	12/18/21 17:23	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130			12/17/21 14:05	12/18/21 17:23	1
o-Terphenyl	107		70 - 130			12/17/21 14:05	12/18/21 17:23	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	208		4.97	mg/Kg			12/18/21 13:24	1

Client Sample ID: SW01A

Lab Sample ID: 890-1727-4

Date Collected: 12/15/21 09:05

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		12/17/21 07:30	12/18/21 00:50	1
Toluene	0.00710		0.00198	mg/Kg		12/17/21 07:30	12/18/21 00:50	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		12/17/21 07:30	12/18/21 00:50	1
m-Xylene & p-Xylene	0.0155		0.00396	mg/Kg		12/17/21 07:30	12/18/21 00:50	1
o-Xylene	0.00541		0.00198	mg/Kg		12/17/21 07:30	12/18/21 00:50	1
Xylenes, Total	0.0209		0.00396	mg/Kg		12/17/21 07:30	12/18/21 00:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			12/17/21 07:30	12/18/21 00:50	1
1,4-Difluorobenzene (Surr)	106		70 - 130			12/17/21 07:30	12/18/21 00:50	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0280		0.00396	mg/Kg			12/20/21 15:38	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			12/17/21 09:16	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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 17:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 17:44	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 17:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130			12/17/21 14:05	12/18/21 17:44	1
o-Terphenyl	117		70 - 130			12/17/21 14:05	12/18/21 17:44	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW01A

Lab Sample ID: 890-1727-4

Date Collected: 12/15/21 09:05

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 8

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.11		4.95	mg/Kg			12/18/21 17:59	1

Client Sample ID: SW01B

Lab Sample ID: 890-1727-5

Date Collected: 12/15/21 09:03

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 8 - 12.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 01:10	1
Toluene	0.00291		0.00200	mg/Kg		12/17/21 07:30	12/18/21 01:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 01:10	1
m-Xylene & p-Xylene	0.00583		0.00400	mg/Kg		12/17/21 07:30	12/18/21 01:10	1
o-Xylene	0.00226		0.00200	mg/Kg		12/17/21 07:30	12/18/21 01:10	1
Xylenes, Total	0.00809		0.00400	mg/Kg		12/17/21 07:30	12/18/21 01:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130			12/17/21 07:30	12/18/21 01:10	1
1,4-Difluorobenzene (Surr)	84		70 - 130			12/17/21 07:30	12/18/21 01:10	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0110		0.00400	mg/Kg			12/20/21 15:38	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			12/17/21 09:16	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 *1	49.8	mg/Kg		12/17/21 14:05	12/18/21 18:04	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		12/17/21 14:05	12/18/21 18:04	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/17/21 14:05	12/18/21 18:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130			12/17/21 14:05	12/18/21 18:04	1
o-Terphenyl	105		70 - 130			12/17/21 14:05	12/18/21 18:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04	mg/Kg			12/18/21 18:11	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW02

Lab Sample ID: 890-1727-6

Date Collected: 12/15/21 09:14

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 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		12/17/21 07:30	12/18/21 01:30	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/18/21 01:30	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/18/21 01:30	1
m-Xylene & p-Xylene	0.00703		0.00398	mg/Kg		12/17/21 07:30	12/18/21 01:30	1
o-Xylene	0.00338		0.00199	mg/Kg		12/17/21 07:30	12/18/21 01:30	1
Xylenes, Total	0.0104		0.00398	mg/Kg		12/17/21 07:30	12/18/21 01:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	12/17/21 07:30	12/18/21 01:30	1
1,4-Difluorobenzene (Surr)	105		70 - 130	12/17/21 07:30	12/18/21 01:30	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0104		0.00398	mg/Kg			12/20/21 15:38	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			12/17/21 09:16	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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 18:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 18:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 18:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130			12/17/21 14:05	12/18/21 18:25	1
o-Terphenyl	102		70 - 130			12/17/21 14:05	12/18/21 18:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		4.99	mg/Kg			12/18/21 14:18	1

Client Sample ID: SW02A

Lab Sample ID: 890-1727-7

Date Collected: 12/15/21 09:12

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 8

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/17/21 07:30	12/18/21 01:51	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/17/21 07:30	12/18/21 01:51	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/17/21 07:30	12/18/21 01:51	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/17/21 07:30	12/18/21 01:51	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/17/21 07:30	12/18/21 01:51	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/17/21 07:30	12/18/21 01:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	12/17/21 07:30	12/18/21 01:51	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW02A

Lab Sample ID: 890-1727-7

Date Collected: 12/15/21 09:12

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 8

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	116		70 - 130	12/17/21 07:30	12/18/21 01:51	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 18:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 18:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 18:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130			12/17/21 14:05	12/18/21 18:46	1
o-Terphenyl	106		70 - 130			12/17/21 14:05	12/18/21 18:46	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			12/18/21 14:29	1

Client Sample ID: SW02B

Lab Sample ID: 890-1727-8

Date Collected: 12/15/21 09:11

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 8 - 12.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/18/21 02:11	1
Toluene	0.00457		0.00202	mg/Kg		12/17/21 07:30	12/18/21 02:11	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/18/21 02:11	1
m-Xylene & p-Xylene	0.0123		0.00403	mg/Kg		12/17/21 07:30	12/18/21 02:11	1
o-Xylene	0.00352		0.00202	mg/Kg		12/17/21 07:30	12/18/21 02:11	1
Xylenes, Total	0.0158		0.00403	mg/Kg		12/17/21 07:30	12/18/21 02:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	12/17/21 07:30	12/18/21 02:11	1
1,4-Difluorobenzene (Surr)	103		70 - 130	12/17/21 07:30	12/18/21 02:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0204		0.00403	mg/Kg			12/20/21 15:38	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			12/17/21 09:16	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW02B

Lab Sample ID: 890-1727-8

Date Collected: 12/15/21 09:11

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 8 - 12.5

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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 19:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 19:07	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 19:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			12/17/21 14:05	12/18/21 19:07	1
o-Terphenyl	100		70 - 130			12/17/21 14:05	12/18/21 19:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95	mg/Kg			12/18/21 18:23	1

Client Sample ID: SW03

Lab Sample ID: 890-1727-9

Date Collected: 12/15/21 09:36

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 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		12/17/21 07:30	12/18/21 02:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 02:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 02:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/18/21 02:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 02:32	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/18/21 02:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130			12/17/21 07:30	12/18/21 02:32	1
1,4-Difluorobenzene (Surr)	78		70 - 130			12/17/21 07:30	12/18/21 02:32	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 19:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 19:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 19:28	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			12/17/21 14:05	12/18/21 19:28	1
o-Terphenyl	103		70 - 130			12/17/21 14:05	12/18/21 19:28	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW03

Lab Sample ID: 890-1727-9

Date Collected: 12/15/21 09:36

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.08		5.01	mg/Kg			12/18/21 14:51	1

Client Sample ID: SW03A

Lab Sample ID: 890-1727-10

Date Collected: 12/15/21 09:34

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 8

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	12/18/21 02:52	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 02:52	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 02:52	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/18/21 02:52	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/18/21 02:52	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/18/21 02:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	160	S1+	70 - 130			12/17/21 07:30	12/18/21 02:52	1
1,4-Difluorobenzene (Surr)	84		70 - 130			12/17/21 07:30	12/18/21 02:52	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 19:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 19:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 19:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130			12/17/21 14:05	12/18/21 19:49	1
o-Terphenyl	103		70 - 130			12/17/21 14:05	12/18/21 19:49	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			12/18/21 15:02	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW04

Lab Sample ID: 890-1727-11

Date Collected: 12/15/21 09:53

Matrix: Solid

Date Received: 12/16/21 08:30

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		12/17/21 07:30	12/17/21 14:39	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/17/21 14:39	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/17/21 14:39	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		12/17/21 07:30	12/17/21 14:39	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/17/21 14:39	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		12/17/21 07:30	12/17/21 14:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	12/17/21 07:30	12/17/21 14:39	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/17/21 07:30	12/17/21 14:39	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 20:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 20:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 20:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	12/17/21 14:05	12/18/21 20:31	1
o-Terphenyl	98		70 - 130	12/17/21 14:05	12/18/21 20:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.5		4.99	mg/Kg			12/18/21 15:13	1

Client Sample ID: SW04A

Lab Sample ID: 890-1727-12

Date Collected: 12/15/21 09:50

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 8

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 14:59	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 14:59	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 14:59	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/17/21 14:59	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 14:59	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/17/21 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130	12/17/21 07:30	12/17/21 14:59	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW04A

Lab Sample ID: 890-1727-12

Date Collected: 12/15/21 09:50

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 8

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	99		70 - 130	12/17/21 07:30	12/17/21 14:59	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 20:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 20:52	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 20:52	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			12/17/21 14:05	12/18/21 20:52	1
o-Terphenyl	91		70 - 130			12/17/21 14:05	12/18/21 20:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.5		5.02	mg/Kg			12/18/21 15:48	1

Client Sample ID: SW04B

Lab Sample ID: 890-1727-13

Date Collected: 12/15/21 09:49

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 8 - 12.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 15:20	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 15:20	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 15:20	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/17/21 15:20	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 15:20	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/17/21 07:30	12/17/21 15:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	12/17/21 07:30	12/17/21 15:20	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/17/21 07:30	12/17/21 15:20	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			12/20/21 15:38	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			12/17/21 09:16	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW04B

Lab Sample ID: 890-1727-13

Date Collected: 12/15/21 09:49

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 8 - 12.5

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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 21:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 21:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 21:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	80		70 - 130			12/17/21 14:05	12/18/21 21:13	1
o-Terphenyl	85		70 - 130			12/17/21 14:05	12/18/21 21:13	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			12/18/21 16:00	1

Client Sample ID: SW05

Lab Sample ID: 890-1727-14

Date Collected: 12/15/21 12:32

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 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		12/17/21 07:30	12/17/21 15:40	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 15:40	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 15:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/17/21 07:30	12/17/21 15:40	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 15:40	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/17/21 07:30	12/17/21 15:40	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130			12/17/21 07:30	12/17/21 15:40	1
1,4-Difluorobenzene (Surr)	95		70 - 130			12/17/21 07:30	12/17/21 15:40	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 21:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 21:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 21:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			12/17/21 14:05	12/18/21 21:35	1
o-Terphenyl	97		70 - 130			12/17/21 14:05	12/18/21 21:35	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW05

Lab Sample ID: 890-1727-14

Date Collected: 12/15/21 12:32

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.54		4.97	mg/Kg			12/18/21 16:36	1

Client Sample ID: SW05A

Lab Sample ID: 890-1727-15

Date Collected: 12/15/21 12:30

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 6.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 16:01	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 16:01	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 16:01	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/17/21 07:30	12/17/21 16:01	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 16:01	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/17/21 07:30	12/17/21 16:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130			12/17/21 07:30	12/17/21 16:01	1
1,4-Difluorobenzene (Surr)	94		70 - 130			12/17/21 07:30	12/17/21 16:01	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			12/20/21 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	67.1		49.9	mg/Kg			12/17/21 09:16	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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 21:56	1
Diesel Range Organics (Over C10-C28)	67.1		49.9	mg/Kg		12/17/21 14:05	12/18/21 21:56	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 21:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	84		70 - 130			12/17/21 14:05	12/18/21 21:56	1
o-Terphenyl	86		70 - 130			12/17/21 14:05	12/18/21 21:56	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	152		4.95	mg/Kg			12/18/21 16:48	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW06

Lab Sample ID: 890-1727-16

Date Collected: 12/15/21 12:39

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 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		12/17/21 07:30	12/17/21 16:21	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 16:21	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 16:21	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 16:21	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 16:21	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	12/17/21 07:30	12/17/21 16:21	1
1,4-Difluorobenzene (Surr)	101		70 - 130	12/17/21 07:30	12/17/21 16:21	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			12/20/21 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	163		49.9	mg/Kg			12/17/21 09:16	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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 22:17	1
Diesel Range Organics (Over C10-C28)	163		49.9	mg/Kg		12/17/21 14:05	12/18/21 22:17	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 22:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	12/17/21 14:05	12/18/21 22:17	1
o-Terphenyl	88		70 - 130	12/17/21 14:05	12/18/21 22:17	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	243		4.96	mg/Kg			12/18/21 17:00	1

Client Sample ID: SW06A

Lab Sample ID: 890-1727-17

Date Collected: 12/15/21 12:34

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 6.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 16:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 16:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 16:41	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 16:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 16:41	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	12/17/21 07:30	12/17/21 16:41	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW06A

Lab Sample ID: 890-1727-17

Date Collected: 12/15/21 12:34

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 6.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130	12/17/21 07:30	12/17/21 16:41	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			12/20/21 15:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	56.1		50.0	mg/Kg			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 22:38	1
Diesel Range Organics (Over C10-C28)	56.1		50.0	mg/Kg		12/17/21 14:05	12/18/21 22:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 22:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			12/17/21 14:05	12/18/21 22:38	1
o-Terphenyl	93		70 - 130			12/17/21 14:05	12/18/21 22:38	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	71.4		5.00	mg/Kg			12/18/21 17:12	1

Client Sample ID: SW07

Lab Sample ID: 890-1727-18

Date Collected: 12/15/21 12:36

Matrix: Solid

Date Received: 12/16/21 08:30

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		12/17/21 07:30	12/17/21 17:02	1
Toluene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/17/21 17:02	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/17/21 17:02	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		12/17/21 07:30	12/17/21 17:02	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		12/17/21 07:30	12/17/21 17:02	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		12/17/21 07:30	12/17/21 17:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	12/17/21 07:30	12/17/21 17:02	1
1,4-Difluorobenzene (Surr)	103		70 - 130	12/17/21 07:30	12/17/21 17:02	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			12/20/21 15:38	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			12/17/21 09:16	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW07

Lab Sample ID: 890-1727-18

Date Collected: 12/15/21 12:36

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 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	<49.9	U *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 22:59	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 22:59	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 22:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			12/17/21 14:05	12/18/21 22:59	1
o-Terphenyl	93		70 - 130			12/17/21 14:05	12/18/21 22:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.9		5.00	mg/Kg			12/18/21 17:23	1

Client Sample ID: SW07A

Lab Sample ID: 890-1727-19

Date Collected: 12/15/21 12:35

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 6.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 17:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 17:22	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 17:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/17/21 07:30	12/17/21 17:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 17:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/17/21 07:30	12/17/21 17:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130			12/17/21 07:30	12/17/21 17:22	1
1,4-Difluorobenzene (Surr)	97		70 - 130			12/17/21 07:30	12/17/21 17:22	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	50.0	mg/Kg		12/17/21 14:05	12/18/21 23:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 23:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 23:19	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			12/17/21 14:05	12/18/21 23:19	1
o-Terphenyl	91		70 - 130			12/17/21 14:05	12/18/21 23:19	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW07A

Lab Sample ID: 890-1727-19

Date Collected: 12/15/21 12:35

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 6.5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.2		4.99	mg/Kg			12/18/21 17:35	1

Client Sample ID: SW08

Lab Sample ID: 890-1727-20

Date Collected: 12/15/21 12:42

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 0 - 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		12/17/21 07:30	12/17/21 19:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 19:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 19:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/17/21 07:30	12/17/21 19:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 19:12	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/17/21 07:30	12/17/21 19:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130			12/17/21 07:30	12/17/21 19:12	1
1,4-Difluorobenzene (Surr)	89		70 - 130			12/17/21 07:30	12/17/21 19:12	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			12/20/21 15:38	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			12/17/21 09:16	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 *1	49.9	mg/Kg		12/17/21 14:05	12/18/21 23:39	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 23:39	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:05	12/18/21 23:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130			12/17/21 14:05	12/18/21 23:39	1
o-Terphenyl	75		70 - 130			12/17/21 14:05	12/18/21 23:39	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.6		4.98	mg/Kg			12/18/21 17:47	1

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW03B

Lab Sample ID: 890-1727-21

Date Collected: 12/15/21 09:32

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 8 - 12.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 19:33	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 19:33	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 19:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 19:33	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 19:33	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		12/17/21 07:30	12/17/21 19:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	12/17/21 07:30	12/17/21 19:33	1
1,4-Difluorobenzene (Surr)	98		70 - 130	12/17/21 07:30	12/17/21 19:33	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			12/20/21 15:38	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			12/20/21 20:40	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 F1	49.9	mg/Kg		12/17/21 14:20	12/20/21 13:14	1
Diesel Range Organics (Over C10-C28)	<49.9	U F1	49.9	mg/Kg		12/17/21 14:20	12/20/21 13:14	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/17/21 14:20	12/20/21 13:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130	12/17/21 14:20	12/20/21 13:14	1
o-Terphenyl	123		70 - 130	12/17/21 14:20	12/20/21 13:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99	mg/Kg			12/18/21 22:45	1

Client Sample ID: SW08A

Lab Sample ID: 890-1727-22

Date Collected: 12/15/21 12:41

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 6.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 19:53	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 19:53	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 19:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/17/21 07:30	12/17/21 19:53	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		12/17/21 07:30	12/17/21 19:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/17/21 07:30	12/17/21 19:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130	12/17/21 07:30	12/17/21 19:53	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW08A

Lab Sample ID: 890-1727-22

Date Collected: 12/15/21 12:41

Matrix: Solid

Date Received: 12/16/21 08:30

Sample Depth: 4 - 6.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130	12/17/21 07:30	12/17/21 19:53	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			12/20/21 15:38	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			12/20/21 20:40	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 14:15	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:20	12/20/21 14:15	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:20	12/20/21 14:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130			12/17/21 14:20	12/20/21 14:15	1
o-Terphenyl	113		70 - 130			12/17/21 14:20	12/20/21 14:15	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.14		5.02	mg/Kg			12/18/21 23:20	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(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
890-1727-1	FS01	119	102
890-1727-1 MS	FS01	113	104
890-1727-1 MSD	FS01	117	102
890-1727-2	FS02	135 S1+	111
890-1727-3	SW01	95	94
890-1727-4	SW01A	119	106
890-1727-5	SW01B	124	84
890-1727-6	SW02	121	105
890-1727-7	SW02A	128	116
890-1727-8	SW02B	122	103
890-1727-9	SW03	124	78
890-1727-10	SW03A	160 S1+	84
890-1727-11	SW04	113	93
890-1727-12	SW04A	130	99
890-1727-13	SW04B	109	93
890-1727-14	SW05	113	95
890-1727-15	SW05A	136 S1+	94
890-1727-16	SW06	117	101
890-1727-17	SW06A	111	97
890-1727-18	SW07	115	103
890-1727-19	SW07A	118	97
890-1727-20	SW08	125	89
890-1727-21	SW03B	121	98
890-1727-22	SW08A	117	93
LCS 880-14938/1-A	Lab Control Sample	103	97
LCS 880-14947/1-A	Lab Control Sample	109	95
LCSD 880-14938/2-A	Lab Control Sample Dup	122	118
LCSD 880-14947/2-A	Lab Control Sample Dup	105	88
MB 880-14938/5-A	Method Blank	121	119
MB 880-14947/5-A	Method Blank	127	103
MB 880-14948/5-A	Method Blank	115	108
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	OTPH1
		(70-130)	(70-130)
890-1727-1	FS01	105	106
890-1727-1 MS	FS01	97	88
890-1727-1 MSD	FS01	97	88
890-1727-2	FS02	108	112
890-1727-3	SW01	109	107
890-1727-4	SW01A	112	117

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Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-1727-5	SW01B	102	105
890-1727-6	SW02	101	102
890-1727-7	SW02A	99	106
890-1727-8	SW02B	95	100
890-1727-9	SW03	97	103
890-1727-10	SW03A	95	103
890-1727-11	SW04	90	98
890-1727-12	SW04A	87	91
890-1727-13	SW04B	80	85
890-1727-14	SW05	91	97
890-1727-15	SW05A	84	86
890-1727-16	SW06	85	88
890-1727-17	SW06A	90	93
890-1727-18	SW07	88	93
890-1727-19	SW07A	89	91
890-1727-20	SW08	85	75
890-1727-21	SW03B	121	123
890-1727-21 MS	SW03B	113	98
890-1727-21 MSD	SW03B	111	97
890-1727-22	SW08A	113	113
LCS 880-15088/2-A	Lab Control Sample	127	127
LCSD 880-15088/3-A	Lab Control Sample Dup	129	127
MB 880-15088/1-A	Method Blank	129	155 S1+
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)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (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			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14938/5-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14938

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 23:27	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 23:27	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 23:27	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/17/21 07:30	12/17/21 23:27	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:30	12/17/21 23:27	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/17/21 07:30	12/17/21 23:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	12/17/21 07:30	12/17/21 23:27	1
1,4-Difluorobenzene (Surr)	119		70 - 130	12/17/21 07:30	12/17/21 23:27	1

Lab Sample ID: LCS 880-14938/1-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14938

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07390		mg/Kg		74	70 - 130
Toluene	0.100	0.07251		mg/Kg		73	70 - 130
Ethylbenzene	0.100	0.07364		mg/Kg		74	70 - 130
m-Xylene & p-Xylene	0.200	0.1508		mg/Kg		75	70 - 130
o-Xylene	0.100	0.07786		mg/Kg		78	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-14938/2-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14938

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08309		mg/Kg		83	70 - 130	12	35
Toluene	0.100	0.08143		mg/Kg		81	70 - 130	12	35
Ethylbenzene	0.100	0.08402		mg/Kg		84	70 - 130	13	35
m-Xylene & p-Xylene	0.200	0.1733		mg/Kg		87	70 - 130	14	35
o-Xylene	0.100	0.08722		mg/Kg		87	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	118		70 - 130

Lab Sample ID: 890-1727-1 MSD

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 14938

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0994	0.07359		mg/Kg					
Toluene	<0.00200	U	0.0994	0.07323		mg/Kg					

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

Lab Sample ID: 890-1727-1 MSD

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 14938

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	<0.00200	U	0.0994	0.07642		mg/Kg					
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1620		mg/Kg					
o-Xylene	<0.00200	U	0.0994	0.08413		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	117		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

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

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

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
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	RPD	RPD Limit
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		
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

Matrix: Solid

Analysis Batch: 15044

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

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

Lab Sample ID: MB 880-14948/5-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14948

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/17/21 07:45	12/17/21 11:31	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/17/21 07:45	12/17/21 11:31	1

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

Lab Sample ID: MB 880-14948/5-A

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14948

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130	12/17/21 07:45	12/17/21 11:31	1
1,4-Difluorobenzene (Surr)	108		70 - 130	12/17/21 07:45	12/17/21 11:31	1

Lab Sample ID: 890-1727-1 MS

Matrix: Solid

Analysis Batch: 15017

Client Sample ID: FS01

Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

Lab Sample ID: MB 880-15088/1-A

Matrix: Solid

Analysis Batch: 15103

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 15088

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 14:05	12/18/21 14:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 14:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/17/21 14:05	12/18/21 14:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130	12/17/21 14:05	12/18/21 14:14	1
o-Terphenyl	155	S1+	70 - 130	12/17/21 14:05	12/18/21 14:14	1

Lab Sample ID: LCS 880-15088/2-A

Matrix: Solid

Analysis Batch: 15103

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1240		mg/Kg		124	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1224		mg/Kg		122	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	127		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: LCSD 880-15088/3-A

Matrix: Solid

Analysis Batch: 15103

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	926.7	*1	mg/Kg		93	70 - 130	29	20

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

Lab Sample ID: LCSD 880-15088/3-A

Matrix: Solid

Analysis Batch: 15103

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 15088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	1000	1143		mg/Kg		114	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	129		70 - 130
o-Terphenyl	127		70 - 130

Lab Sample ID: 890-1727-1 MS

Matrix: Solid

Analysis Batch: 15103

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 15088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	996	1250		mg/Kg		122	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1169		mg/Kg		116	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 890-1727-1 MSD

Matrix: Solid

Analysis Batch: 15103

Client Sample ID: FS01

Prep Type: Total/NA

Prep Batch: 15088

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 *1	995	1146		mg/Kg		112	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	995	1172		mg/Kg		116	70 - 130	0	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: MB 880-15090/1-A

Matrix: Solid

Analysis Batch: 15096

Client Sample ID: Method Blank

Prep Type: Total/NA

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
Oil 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

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

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
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

Top Data: 100%												
Analyte				Spike	LCSD	LCSD				%Rec.	RPD	
				Added	Result	Qualifier	Unit	D	%Rec	Limits	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		LCSD	Limits								
	%Recovery	Qualifier										
1-Chlorooctane	110			70 - 130								
o-Terphenyl	116			70 - 130								

Lab Sample ID: 890-1727-21 MS

Matrix: Solid

Analysis Batch: 15096

Client Sample ID: SW03B

Prep Type: Total/NA

Prep Batch: 15090

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%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		

Lab Sample ID: 890-1727-21 MSD

Matrix: Solid

Analysis Batch: 15096

Client Sample ID: SW03B

Prep Type: Total/NA

Prep Batch: 15090

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<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								

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

Lab Sample ID: 890-1727-21 MSD

Matrix: Solid

Analysis Batch: 15096

Client Sample ID: SW03B

Prep Type: Total/NA

Prep Batch: 15090

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	97		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-15087/1-A

Matrix: Solid

Analysis Batch: 15123

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<5.00	U	5.00	mg/Kg			12/18/21 12:07		1

Lab Sample ID: LCS 880-15087/2-A

Matrix: Solid

Analysis Batch: 15123

Client Sample ID: Lab Control Sample

Prep Type: Soluble

			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride			250	246.7		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-15087/3-A

Matrix: Solid

Analysis Batch: 15123

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	257.3		mg/Kg		103	90 - 110	4	20

Lab Sample ID: 890-1727-1 MS

Matrix: Solid

Analysis Batch: 15123

Client Sample ID: FS01

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	7.38		248	241.4		mg/Kg		95	90 - 110

Lab Sample ID: 890-1727-1 MSD

Matrix: Solid

Analysis Batch: 15123

Client Sample ID: FS01

Prep Type: Soluble

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	7.38		248	248.8		mg/Kg		98	90 - 110	3	20

Lab Sample ID: 890-1727-11 MS

Matrix: Solid

Analysis Batch: 15123

Client Sample ID: SW04

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	10.5		250	247.7		mg/Kg		95	90 - 110

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-1727-11 MSD

Matrix: Solid

Analysis Batch: 15123

Client Sample ID: SW04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.5		250	247.0		mg/Kg		95	90 - 110	0	20

Lab Sample ID: MB 880-15086/1-A

Matrix: Solid

Analysis Batch: 15125

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			12/18/21 19:22	1

Lab Sample ID: LCS 880-15086/2-A

Matrix: Solid

Analysis Batch: 15125

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	249.4		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-15086/3-A

Matrix: Solid

Analysis Batch: 15125

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	244.7		mg/Kg		98	90 - 110	2	20

Lab Sample ID: 890-1727-21 MS

Matrix: Solid

Analysis Batch: 15125

Client Sample ID: SW03B

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<4.99	U	250	262.1		mg/Kg		103	90 - 110

Lab Sample ID: 890-1727-21 MSD

Matrix: Solid

Analysis Batch: 15125

Client Sample ID: SW03B

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.99	U	250	255.6		mg/Kg		101	90 - 110	2	20

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

GC VOA

Prep Batch: 14938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Total/NA	Solid	5035	
890-1727-2	FS02	Total/NA	Solid	5035	
890-1727-3	SW01	Total/NA	Solid	5035	
890-1727-4	SW01A	Total/NA	Solid	5035	
890-1727-5	SW01B	Total/NA	Solid	5035	
890-1727-6	SW02	Total/NA	Solid	5035	
890-1727-7	SW02A	Total/NA	Solid	5035	
890-1727-8	SW02B	Total/NA	Solid	5035	
890-1727-9	SW03	Total/NA	Solid	5035	
890-1727-10	SW03A	Total/NA	Solid	5035	
MB 880-14938/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14938/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14938/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1727-1 MSD	FS01	Total/NA	Solid	5035	

Prep Batch: 14947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-11	SW04	Total/NA	Solid	5035	
890-1727-12	SW04A	Total/NA	Solid	5035	
890-1727-13	SW04B	Total/NA	Solid	5035	
890-1727-14	SW05	Total/NA	Solid	5035	
890-1727-15	SW05A	Total/NA	Solid	5035	
890-1727-16	SW06	Total/NA	Solid	5035	
890-1727-17	SW06A	Total/NA	Solid	5035	
890-1727-18	SW07	Total/NA	Solid	5035	
890-1727-19	SW07A	Total/NA	Solid	5035	
890-1727-20	SW08	Total/NA	Solid	5035	
890-1727-21	SW03B	Total/NA	Solid	5035	
890-1727-22	SW08A	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	

Prep Batch: 14948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-14948/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 15017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Total/NA	Solid	8021B	14938
890-1727-2	FS02	Total/NA	Solid	8021B	14938
890-1727-3	SW01	Total/NA	Solid	8021B	14938
890-1727-4	SW01A	Total/NA	Solid	8021B	14938
890-1727-5	SW01B	Total/NA	Solid	8021B	14938
890-1727-6	SW02	Total/NA	Solid	8021B	14938
890-1727-7	SW02A	Total/NA	Solid	8021B	14938
890-1727-8	SW02B	Total/NA	Solid	8021B	14938
890-1727-9	SW03	Total/NA	Solid	8021B	14938
890-1727-10	SW03A	Total/NA	Solid	8021B	14938

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QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

GC VOA (Continued)

Analysis Batch: 15017 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-14938/5-A	Method Blank	Total/NA	Solid	8021B	14938
MB 880-14948/5-A	Method Blank	Total/NA	Solid	8021B	14948
LCS 880-14938/1-A	Lab Control Sample	Total/NA	Solid	8021B	14938
LCSD 880-14938/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14938
890-1727-1 MS	FS01	Total/NA	Solid	8021B	
890-1727-1 MSD	FS01	Total/NA	Solid	8021B	14938

Analysis Batch: 15044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-11	SW04	Total/NA	Solid	8021B	14947
890-1727-12	SW04A	Total/NA	Solid	8021B	14947
890-1727-13	SW04B	Total/NA	Solid	8021B	14947
890-1727-14	SW05	Total/NA	Solid	8021B	14947
890-1727-15	SW05A	Total/NA	Solid	8021B	14947
890-1727-16	SW06	Total/NA	Solid	8021B	14947
890-1727-17	SW06A	Total/NA	Solid	8021B	14947
890-1727-18	SW07	Total/NA	Solid	8021B	14947
890-1727-19	SW07A	Total/NA	Solid	8021B	14947
890-1727-20	SW08	Total/NA	Solid	8021B	14947
890-1727-21	SW03B	Total/NA	Solid	8021B	14947
890-1727-22	SW08A	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: 15211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Total/NA	Solid	Total BTEX	
890-1727-2	FS02	Total/NA	Solid	Total BTEX	
890-1727-3	SW01	Total/NA	Solid	Total BTEX	
890-1727-4	SW01A	Total/NA	Solid	Total BTEX	
890-1727-5	SW01B	Total/NA	Solid	Total BTEX	
890-1727-6	SW02	Total/NA	Solid	Total BTEX	
890-1727-7	SW02A	Total/NA	Solid	Total BTEX	
890-1727-8	SW02B	Total/NA	Solid	Total BTEX	
890-1727-9	SW03	Total/NA	Solid	Total BTEX	
890-1727-10	SW03A	Total/NA	Solid	Total BTEX	
890-1727-11	SW04	Total/NA	Solid	Total BTEX	
890-1727-12	SW04A	Total/NA	Solid	Total BTEX	
890-1727-13	SW04B	Total/NA	Solid	Total BTEX	
890-1727-14	SW05	Total/NA	Solid	Total BTEX	
890-1727-15	SW05A	Total/NA	Solid	Total BTEX	
890-1727-16	SW06	Total/NA	Solid	Total BTEX	
890-1727-17	SW06A	Total/NA	Solid	Total BTEX	
890-1727-18	SW07	Total/NA	Solid	Total BTEX	
890-1727-19	SW07A	Total/NA	Solid	Total BTEX	
890-1727-20	SW08	Total/NA	Solid	Total BTEX	
890-1727-21	SW03B	Total/NA	Solid	Total BTEX	
890-1727-22	SW08A	Total/NA	Solid	Total BTEX	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

GC Semi VOA

Analysis Batch: 15045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Total/NA	Solid	8015 NM	
890-1727-2	FS02	Total/NA	Solid	8015 NM	
890-1727-3	SW01	Total/NA	Solid	8015 NM	
890-1727-4	SW01A	Total/NA	Solid	8015 NM	
890-1727-5	SW01B	Total/NA	Solid	8015 NM	
890-1727-6	SW02	Total/NA	Solid	8015 NM	
890-1727-7	SW02A	Total/NA	Solid	8015 NM	
890-1727-8	SW02B	Total/NA	Solid	8015 NM	
890-1727-9	SW03	Total/NA	Solid	8015 NM	
890-1727-10	SW03A	Total/NA	Solid	8015 NM	
890-1727-11	SW04	Total/NA	Solid	8015 NM	
890-1727-12	SW04A	Total/NA	Solid	8015 NM	
890-1727-13	SW04B	Total/NA	Solid	8015 NM	
890-1727-14	SW05	Total/NA	Solid	8015 NM	
890-1727-15	SW05A	Total/NA	Solid	8015 NM	
890-1727-16	SW06	Total/NA	Solid	8015 NM	
890-1727-17	SW06A	Total/NA	Solid	8015 NM	
890-1727-18	SW07	Total/NA	Solid	8015 NM	
890-1727-19	SW07A	Total/NA	Solid	8015 NM	
890-1727-20	SW08	Total/NA	Solid	8015 NM	

Prep Batch: 15088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Total/NA	Solid	8015NM Prep	
890-1727-2	FS02	Total/NA	Solid	8015NM Prep	
890-1727-3	SW01	Total/NA	Solid	8015NM Prep	
890-1727-4	SW01A	Total/NA	Solid	8015NM Prep	
890-1727-5	SW01B	Total/NA	Solid	8015NM Prep	
890-1727-6	SW02	Total/NA	Solid	8015NM Prep	
890-1727-7	SW02A	Total/NA	Solid	8015NM Prep	
890-1727-8	SW02B	Total/NA	Solid	8015NM Prep	
890-1727-9	SW03	Total/NA	Solid	8015NM Prep	
890-1727-10	SW03A	Total/NA	Solid	8015NM Prep	
890-1727-11	SW04	Total/NA	Solid	8015NM Prep	
890-1727-12	SW04A	Total/NA	Solid	8015NM Prep	
890-1727-13	SW04B	Total/NA	Solid	8015NM Prep	
890-1727-14	SW05	Total/NA	Solid	8015NM Prep	
890-1727-15	SW05A	Total/NA	Solid	8015NM Prep	
890-1727-16	SW06	Total/NA	Solid	8015NM Prep	
890-1727-17	SW06A	Total/NA	Solid	8015NM Prep	
890-1727-18	SW07	Total/NA	Solid	8015NM Prep	
890-1727-19	SW07A	Total/NA	Solid	8015NM Prep	
890-1727-20	SW08	Total/NA	Solid	8015NM Prep	
MB 880-15088/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-15088/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-15088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1727-1 MS	FS01	Total/NA	Solid	8015NM Prep	
890-1727-1 MSD	FS01	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

GC Semi VOA

Prep Batch: 15090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-21	SW03B	Total/NA	Solid	8015NM Prep	
890-1727-22	SW08A	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	
890-1727-21 MS	SW03B	Total/NA	Solid	8015NM Prep	
890-1727-21 MSD	SW03B	Total/NA	Solid	8015NM Prep	

Analysis Batch: 15096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-21	SW03B	Total/NA	Solid	8015B NM	15090
890-1727-22	SW08A	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
890-1727-21 MS	SW03B	Total/NA	Solid	8015B NM	15090
890-1727-21 MSD	SW03B	Total/NA	Solid	8015B NM	15090

Analysis Batch: 15103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Total/NA	Solid	8015B NM	15088
890-1727-2	FS02	Total/NA	Solid	8015B NM	15088
890-1727-3	SW01	Total/NA	Solid	8015B NM	15088
890-1727-4	SW01A	Total/NA	Solid	8015B NM	15088
890-1727-5	SW01B	Total/NA	Solid	8015B NM	15088
890-1727-6	SW02	Total/NA	Solid	8015B NM	15088
890-1727-7	SW02A	Total/NA	Solid	8015B NM	15088
890-1727-8	SW02B	Total/NA	Solid	8015B NM	15088
890-1727-9	SW03	Total/NA	Solid	8015B NM	15088
890-1727-10	SW03A	Total/NA	Solid	8015B NM	15088
890-1727-11	SW04	Total/NA	Solid	8015B NM	15088
890-1727-12	SW04A	Total/NA	Solid	8015B NM	15088
890-1727-13	SW04B	Total/NA	Solid	8015B NM	15088
890-1727-14	SW05	Total/NA	Solid	8015B NM	15088
890-1727-15	SW05A	Total/NA	Solid	8015B NM	15088
890-1727-16	SW06	Total/NA	Solid	8015B NM	15088
890-1727-17	SW06A	Total/NA	Solid	8015B NM	15088
890-1727-18	SW07	Total/NA	Solid	8015B NM	15088
890-1727-19	SW07A	Total/NA	Solid	8015B NM	15088
890-1727-20	SW08	Total/NA	Solid	8015B NM	15088
MB 880-15088/1-A	Method Blank	Total/NA	Solid	8015B NM	15088
LCS 880-15088/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	15088
LCSD 880-15088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	15088
890-1727-1 MS	FS01	Total/NA	Solid	8015B NM	15088
890-1727-1 MSD	FS01	Total/NA	Solid	8015B NM	15088

Analysis Batch: 15224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-21	SW03B	Total/NA	Solid	8015 NM	
890-1727-22	SW08A	Total/NA	Solid	8015 NM	

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

HPLC/IC

Leach Batch: 15086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-21	SW03B	Soluble	Solid	DI Leach	
890-1727-22	SW08A	Soluble	Solid	DI Leach	
MB 880-15086/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15086/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15086/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1727-21 MS	SW03B	Soluble	Solid	DI Leach	
890-1727-21 MSD	SW03B	Soluble	Solid	DI Leach	

Leach Batch: 15087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Soluble	Solid	DI Leach	
890-1727-2	FS02	Soluble	Solid	DI Leach	
890-1727-3	SW01	Soluble	Solid	DI Leach	
890-1727-4	SW01A	Soluble	Solid	DI Leach	
890-1727-5	SW01B	Soluble	Solid	DI Leach	
890-1727-6	SW02	Soluble	Solid	DI Leach	
890-1727-7	SW02A	Soluble	Solid	DI Leach	
890-1727-8	SW02B	Soluble	Solid	DI Leach	
890-1727-9	SW03	Soluble	Solid	DI Leach	
890-1727-10	SW03A	Soluble	Solid	DI Leach	
890-1727-11	SW04	Soluble	Solid	DI Leach	
890-1727-12	SW04A	Soluble	Solid	DI Leach	
890-1727-13	SW04B	Soluble	Solid	DI Leach	
890-1727-14	SW05	Soluble	Solid	DI Leach	
890-1727-15	SW05A	Soluble	Solid	DI Leach	
890-1727-16	SW06	Soluble	Solid	DI Leach	
890-1727-17	SW06A	Soluble	Solid	DI Leach	
890-1727-18	SW07	Soluble	Solid	DI Leach	
890-1727-19	SW07A	Soluble	Solid	DI Leach	
890-1727-20	SW08	Soluble	Solid	DI Leach	
MB 880-15087/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-15087/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-15087/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1727-1 MS	FS01	Soluble	Solid	DI Leach	
890-1727-1 MSD	FS01	Soluble	Solid	DI Leach	
890-1727-11 MS	SW04	Soluble	Solid	DI Leach	
890-1727-11 MSD	SW04	Soluble	Solid	DI Leach	

Analysis Batch: 15123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-1	FS01	Soluble	Solid	300.0	15087
890-1727-2	FS02	Soluble	Solid	300.0	15087
890-1727-3	SW01	Soluble	Solid	300.0	15087
890-1727-4	SW01A	Soluble	Solid	300.0	15087
890-1727-5	SW01B	Soluble	Solid	300.0	15087
890-1727-6	SW02	Soluble	Solid	300.0	15087
890-1727-7	SW02A	Soluble	Solid	300.0	15087
890-1727-8	SW02B	Soluble	Solid	300.0	15087
890-1727-9	SW03	Soluble	Solid	300.0	15087
890-1727-10	SW03A	Soluble	Solid	300.0	15087
890-1727-11	SW04	Soluble	Solid	300.0	15087

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

HPLC/IC (Continued)

Analysis Batch: 15123 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-12	SW04A	Soluble	Solid	300.0	15087
890-1727-13	SW04B	Soluble	Solid	300.0	15087
890-1727-14	SW05	Soluble	Solid	300.0	15087
890-1727-15	SW05A	Soluble	Solid	300.0	15087
890-1727-16	SW06	Soluble	Solid	300.0	15087
890-1727-17	SW06A	Soluble	Solid	300.0	15087
890-1727-18	SW07	Soluble	Solid	300.0	15087
890-1727-19	SW07A	Soluble	Solid	300.0	15087
890-1727-20	SW08	Soluble	Solid	300.0	15087
MB 880-15087/1-A	Method Blank	Soluble	Solid	300.0	15087
LCS 880-15087/2-A	Lab Control Sample	Soluble	Solid	300.0	15087
LCSD 880-15087/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15087
890-1727-1 MS	FS01	Soluble	Solid	300.0	15087
890-1727-1 MSD	FS01	Soluble	Solid	300.0	15087
890-1727-11 MS	SW04	Soluble	Solid	300.0	15087
890-1727-11 MSD	SW04	Soluble	Solid	300.0	15087

Analysis Batch: 15125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1727-21	SW03B	Soluble	Solid	300.0	15086
890-1727-22	SW08A	Soluble	Solid	300.0	15086
MB 880-15086/1-A	Method Blank	Soluble	Solid	300.0	15086
LCS 880-15086/2-A	Lab Control Sample	Soluble	Solid	300.0	15086
LCSD 880-15086/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	15086
890-1727-21 MS	SW03B	Soluble	Solid	300.0	15086
890-1727-21 MSD	SW03B	Soluble	Solid	300.0	15086

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: FS01

Lab Sample ID: 890-1727-1

Date Collected: 12/14/21 13:43

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/17/21 23:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 15:59	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 12:40	SC	XEN MID

Client Sample ID: FS02

Lab Sample ID: 890-1727-2

Date Collected: 12/15/21 12:45

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 00:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 17:01	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 13:13	SC	XEN MID

Client Sample ID: SW01

Lab Sample ID: 890-1727-3

Date Collected: 12/15/21 09:06

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 00:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 17:23	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 13:24	SC	XEN MID

Client Sample ID: SW01A

Lab Sample ID: 890-1727-4

Date Collected: 12/15/21 09:05

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 00:50	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW01A

Lab Sample ID: 890-1727-4

Date Collected: 12/15/21 09:05

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 17:44	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 17:59	SC	XEN MID

Client Sample ID: SW01B

Lab Sample ID: 890-1727-5

Date Collected: 12/15/21 09:03

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 01:10	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 18:04	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 18:11	SC	XEN MID

Client Sample ID: SW02

Lab Sample ID: 890-1727-6

Date Collected: 12/15/21 09:14

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 01:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 18:25	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 14:18	SC	XEN MID

Client Sample ID: SW02A

Lab Sample ID: 890-1727-7

Date Collected: 12/15/21 09:12

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 01:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 18:46	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW02A

Lab Sample ID: 890-1727-7

Date Collected: 12/15/21 09:12

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 14:29	SC	XEN MID

Client Sample ID: SW02B

Lab Sample ID: 890-1727-8

Date Collected: 12/15/21 09:11

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 02:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 19:07	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 18:23	SC	XEN MID

Client Sample ID: SW03

Lab Sample ID: 890-1727-9

Date Collected: 12/15/21 09:36

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 02:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 19:28	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 14:51	SC	XEN MID

Client Sample ID: SW03A

Lab Sample ID: 890-1727-10

Date Collected: 12/15/21 09:34

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14938	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15017	12/18/21 02:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 19:49	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 15:02	SC	XEN MID

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Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW04

Lab Sample ID: 890-1727-11

Date Collected: 12/15/21 09:53

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 14:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 20:31	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 15:13	SC	XEN MID

Client Sample ID: SW04A

Lab Sample ID: 890-1727-12

Date Collected: 12/15/21 09:50

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 14:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 20:52	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 15:48	SC	XEN MID

Client Sample ID: SW04B

Lab Sample ID: 890-1727-13

Date Collected: 12/15/21 09:49

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 15:20	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 21:13	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 16:00	SC	XEN MID

Client Sample ID: SW05

Lab Sample ID: 890-1727-14

Date Collected: 12/15/21 12:32

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 15:40	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW05

Lab Sample ID: 890-1727-14

Date Collected: 12/15/21 12:32

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 21:35	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 16:36	SC	XEN MID

Client Sample ID: SW05A

Lab Sample ID: 890-1727-15

Date Collected: 12/15/21 12:30

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 16:01	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 21:56	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 16:48	SC	XEN MID

Client Sample ID: SW06

Lab Sample ID: 890-1727-16

Date Collected: 12/15/21 12:39

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 16:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 22:17	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 17:00	SC	XEN MID

Client Sample ID: SW06A

Lab Sample ID: 890-1727-17

Date Collected: 12/15/21 12:34

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 16:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 22:38	AJ	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW06A

Lab Sample ID: 890-1727-17

Date Collected: 12/15/21 12:34

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 17:12	SC	XEN MID

Client Sample ID: SW07

Lab Sample ID: 890-1727-18

Date Collected: 12/15/21 12:36

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 17:02	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 22:59	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 17:23	SC	XEN MID

Client Sample ID: SW07A

Lab Sample ID: 890-1727-19

Date Collected: 12/15/21 12:35

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 17:22	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 23:19	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 17:35	SC	XEN MID

Client Sample ID: SW08

Lab Sample ID: 890-1727-20

Date Collected: 12/15/21 12:42

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 19:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15045	12/17/21 09:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15088	12/17/21 14:05	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15103	12/18/21 23:39	AJ	XEN MID
Soluble	Leach	DI Leach			15087	12/17/21 14:03	CA	XEN MID
Soluble	Analysis	300.0		1	15123	12/18/21 17:47	SC	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Client Sample ID: SW03B

Lab Sample ID: 890-1727-21

Date Collected: 12/15/21 09:32

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 19:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15224	12/20/21 20:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15096	12/20/21 13:14	AJ	XEN MID
Soluble	Leach	DI Leach			15086	12/17/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1	15125	12/18/21 22:45	SC	XEN MID

Client Sample ID: SW08A

Lab Sample ID: 890-1727-22

Date Collected: 12/15/21 12:41

Matrix: Solid

Date Received: 12/16/21 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14947	12/17/21 07:30	KL	XEN MID
Total/NA	Analysis	8021B		1	15044	12/17/21 19:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1	15211	12/20/21 15:38	AJ	XEN MID
Total/NA	Analysis	8015 NM		1	15224	12/20/21 20:40	AJ	XEN MID
Total/NA	Prep	8015NM Prep			15090	12/17/21 14:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1	15096	12/20/21 14:15	AJ	XEN MID
Soluble	Leach	DI Leach			15086	12/17/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1	15125	12/18/21 23:20	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.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

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: PLU 15 TWR 901H

Job ID: 890-1727-1
SDG: TE012921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1727-1	FS01	Solid	12/14/21 13:43	12/16/21 08:30	12.5
890-1727-2	FS02	Solid	12/15/21 12:45	12/16/21 08:30	6.5
890-1727-3	SW01	Solid	12/15/21 09:06	12/16/21 08:30	0 - 4
890-1727-4	SW01A	Solid	12/15/21 09:05	12/16/21 08:30	4 - 8
890-1727-5	SW01B	Solid	12/15/21 09:03	12/16/21 08:30	8 - 12.5
890-1727-6	SW02	Solid	12/15/21 09:14	12/16/21 08:30	0 - 4
890-1727-7	SW02A	Solid	12/15/21 09:12	12/16/21 08:30	4 - 8
890-1727-8	SW02B	Solid	12/15/21 09:11	12/16/21 08:30	8 - 12.5
890-1727-9	SW03	Solid	12/15/21 09:36	12/16/21 08:30	0 - 4
890-1727-10	SW03A	Solid	12/15/21 09:34	12/16/21 08:30	4 - 8
890-1727-11	SW04	Solid	12/15/21 09:53	12/16/21 08:30	0 - 4
890-1727-12	SW04A	Solid	12/15/21 09:50	12/16/21 08:30	4 - 8
890-1727-13	SW04B	Solid	12/15/21 09:49	12/16/21 08:30	8 - 12.5
890-1727-14	SW05	Solid	12/15/21 12:32	12/16/21 08:30	0 - 4
890-1727-15	SW05A	Solid	12/15/21 12:30	12/16/21 08:30	4 - 6.5
890-1727-16	SW06	Solid	12/15/21 12:39	12/16/21 08:30	0 - 4
890-1727-17	SW06A	Solid	12/15/21 12:34	12/16/21 08:30	4 - 6.5
890-1727-18	SW07	Solid	12/15/21 12:36	12/16/21 08:30	0 - 4
890-1727-19	SW07A	Solid	12/15/21 12:35	12/16/21 08:30	4 - 6.5
890-1727-20	SW08	Solid	12/15/21 12:42	12/16/21 08:30	0 - 4
890-1727-21	SW03B	Solid	12/15/21 09:32	12/16/21 08:30	8 - 12.5
890-1727-22	SW08A	Solid	12/15/21 12:41	12/16/21 08:30	4 - 6.5



Chain of Custody

Work Order No: _____

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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Page 1 of 3

Project Manager:	Katei Semings	Site ID: (if different)	Kyle Little
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	720-384-7365	Email:	Katei.Semings@wsp.com, Will.Mather@ASD.COM

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

Project Name:	PLU15 TMR 90114	Turn Around	☐
Project Number:	TE012921027	Rush:	24hr
P.O. Number:		Due Date:	
Sampler's Name:	Will Mather	Due Date:	

SAMPLE RECEIPT	Temp Blank: ☒ Yes ☐ No	Wet Ice: ☐ Yes ☒ No
Temperature (°C):	3.2/3.0	Thermometer ID
Received In tact:	☒ Yes ☐ No	Correction Factor:
Cooler Custody Seals:	Yes ☐ No ☒ N/A	Total Containers:
Sample Custody Seals:	Yes ☐ No ☒ N/A	



890-1727 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers										
ES01	S	12/14/21	13:43	12.5'	1	X	X	X							
ES02	S	12/15/21	12:45	6.5'	1										
SN01		12/15/21	9:06	0-4'	1										
SN01A			9:05	4-8'	1										
SN01B			9:03	8-12.5'	1										
SN02A			9:14	0-4'	1										
SN02B			9:12	4-8'	1										
SN02C			9:11	8-12.5'	1										
SN03			9:36	0-4'	1										
SN03A			9:34	4-8'	1										

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

Sample Comments

Composite

Work Order Notes

CC 1665271001

AFE #44AP2102235-UM

EW, 2021.05265, EXP. 01

#NAP2102235706

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

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

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
<i>[Signature]</i>	<i>[Signature]</i>	12-16-21 08:30			



Work Order No:

Page 2 of 3

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

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

Number of Containers

PA 8015)

EPA 0=8021)

le (EPA 300.0)

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number	TPH (E)	BTEX (E)	Chloride	Sample Comments
SN04	S	12/15/21	9:53	0-4'	1	X	X	X	Composite
SN04A			9:50	4-8'	1				
SN04B			9:49	8-12.5'	1				
SN05			12:32	0-4'	1				
SN05A			12:30	4-6.5'	1				
SN06			12:39	6-4'	1				
SN06A			12:34	4-6.5'	1				
SN07			12:30	0-4'	1				
SN07A			12:35	4-6.5'	1				✓
SN08			12:42	0-4'	1				

Circle Method(s) and Metal(s) to be analyzed	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 SiO ₂ Na Sr Ti Sn U V Zn	
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		1631 / 245.1 / 7470 / 7471 : Hg

of service. Xencio will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xencio. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xencio, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		12-16-21 2230			
2					
3					
4					
5					
6					



Chain of Custody

Work Order No:

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-575-3932-7550)

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12/20/2021

Project Manager:		Bill To: (if different)	
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 E Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	720-384-7365	Email:	

Work Order Comments									
Program: UST/ST ☐ RRP ☐ Brownfields ☐ RC ☐ Superfund ☐									
State of Project:									
Reporting Level II ☐ Level III ☐ ST/UST ☐ RRP ☐ Level IV ☐									
Deliverables: EDD ☐ ADAPT ☐ Other:									

Project Name:	PLU/STLR 901H	Turn Around	ANALYSIS REQUEST							Work Order Notes
Project Number:		Routine ☐								CC
P.O. Number:		Rush								AFE
Sampler's Name:		Due Date:								

SAMPLE RECEIPT					Temp Blank:	Yes	No	Well/ce:	Yes	No
Temperature (°C):				Thermometer ID						
Received Intact:	Yes	No								
Cooler Custody Seals:	Yes	No	N/A	Correction factor:						
Sample Custody Seals:	Yes	No	N/A	Total Containers:						

Number of Containers

PA 8015)

EPA 0=8021)

le (EPA 300.0)

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

[illegible]

Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010	200.8 / 6020:
8RCRA	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
13PPM Texas 11		
TCLP / SPLP 6010:	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	1631 / 245: 17470 / 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
		12/16/21 0830			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1727-1

SDG Number: TE012921027

Login Number: 1727

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: 890-1727-1

SDG Number: TE012921027

Login Number: 1727

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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-575-1

Laboratory Sample Delivery Group: TE01921027

Client Project/Site: PLU 15 TWR 901H

For:

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

Attn: Dan Moir

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

Authorized for release by:
4/29/2021 4:56:45 PM

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

LINKS

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

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

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Laboratory Job ID: 890-575-1
SDG: TE01921027

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Definitions/Glossary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Job ID: 890-575-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

**Job Narrative
890-575-1****Comments**

No additional comments.

Receipt

The samples were received on 4/26/2021 4:48 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 was 1.4° C.

Receipt Exceptions

The following samples analyzed for method BTEX 8021 were received and analyzed from an unpreserved bulk soil jar: SS01 (890-575-1) and SS02 (890-575-2).

GC VOA

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

GC Semi VOA

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Client Sample ID: SS01

Lab Sample ID: 890-575-1

Date Collected: 04/26/21 13:10

Matrix: Solid

Date Received: 04/26/21 16:48

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		04/27/21 13:36	04/29/21 15:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 15:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 15:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 15:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 15:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 15:56	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 15:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	04/27/21 13:36	04/29/21 15:56	1
1,4-Difluorobenzene (Surr)	122		70 - 130	04/27/21 13:36	04/29/21 15:56	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 ** *1	50.0	mg/Kg		04/27/21 10:20	04/28/21 14:48	1
Diesel Range Organics (Over C10-C28)	106		50.0	mg/Kg		04/27/21 10:20	04/28/21 14:48	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 14:48	1
Total TPH	106		50.0	mg/Kg		04/27/21 10:20	04/28/21 14:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/27/21 10:20	04/28/21 14:48	1
o-Terphenyl	101		70 - 130	04/27/21 10:20	04/28/21 14:48	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	109		4.99	mg/Kg			04/27/21 20:01	1

Client Sample ID: SS02

Lab Sample ID: 890-575-2

Date Collected: 04/26/21 13:20

Matrix: Solid

Date Received: 04/26/21 16:48

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		04/28/21 14:55	04/29/21 14:19	1
Toluene	<0.00199	U	0.00199	mg/Kg		04/28/21 14:55	04/29/21 14:19	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		04/28/21 14:55	04/29/21 14:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		04/28/21 14:55	04/29/21 14:19	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		04/28/21 14:55	04/29/21 14:19	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		04/28/21 14:55	04/29/21 14:19	1
Total BTEX	<0.00398	U	0.00398	mg/Kg		04/28/21 14:55	04/29/21 14:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	04/28/21 14:55	04/29/21 14:19	1
1,4-Difluorobenzene (Surr)	95		70 - 130	04/28/21 14:55	04/29/21 14:19	1

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Client Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Client Sample ID: SS02

Lab Sample ID: 890-575-2

Date Collected: 04/26/21 13:20

Matrix: Solid

Date Received: 04/26/21 16:48

Sample Depth: - 0.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U ** *1	50.0	mg/Kg		04/27/21 10:20	04/28/21 15:13	1
Diesel Range Organics (Over C10-C28)	91.2		50.0	mg/Kg		04/27/21 10:20	04/28/21 15:13	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 15:13	1
Total TPH	91.2		50.0	mg/Kg		04/27/21 10:20	04/28/21 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130	04/27/21 10:20	04/28/21 15:13	1
o-Terphenyl	100		70 - 130	04/27/21 10:20	04/28/21 15:13	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	117		5.04	mg/Kg			04/27/21 20:08	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-575-1	SS01	111	122
890-575-2	SS02	105	95
LCS 880-2392/1-A	Lab Control Sample	95	109
LCS 880-2456/1-A	Lab Control Sample	111	102
LCSD 880-2392/2-A	Lab Control Sample Dup	90	102
LCSD 880-2456/2-A	Lab Control Sample Dup	114	104
MB 880-2392/5-A	Method Blank	106	92
MB 880-2456/5-A	Method Blank	90	91
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
890-575-2 MS	SS02		
890-575-2 MSD	SS02		
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)
890-575-1	SS01	114	101
890-575-2	SS02	112	100
LCS 880-2377/2-A	Lab Control Sample	130	113
LCSD 880-2377/3-A	Lab Control Sample Dup	110	100
MB 880-2377/1-A	Method Blank	114	108
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-2392/5-A

Matrix: Solid

Analysis Batch: 2475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2392

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.002017		0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 13:09	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/27/21 13:36	04/29/21 13:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/27/21 13:36	04/29/21 13:09	1
1,4-Difluorobenzene (Surr)	92		70 - 130	04/27/21 13:36	04/29/21 13:09	1

Lab Sample ID: LCS 880-2392/1-A

Matrix: Solid

Analysis Batch: 2475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09549		mg/Kg		95	70 - 130
Toluene	0.100	0.1074		mg/Kg		107	70 - 130
Ethylbenzene	0.100	0.1022		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2096		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1017		mg/Kg		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: LCSD 880-2392/2-A

Matrix: Solid

Analysis Batch: 2475

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09165		mg/Kg		92	70 - 130	4	35
Toluene	0.100	0.1047		mg/Kg		105	70 - 130	3	35
Ethylbenzene	0.100	0.1005		mg/Kg		100	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1970		mg/Kg		98	70 - 130	6	35
o-Xylene	0.100	0.09566		mg/Kg		96	70 - 130	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	90		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-2456/5-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

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

Lab Sample ID: MB 880-2456/5-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2456

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1
Total BTEX	<0.00400	U	0.00400	mg/Kg		04/28/21 14:55	04/29/21 13:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		70 - 130	04/28/21 14:55	04/29/21 13:58	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/28/21 14:55	04/29/21 13:58	1

Lab Sample ID: LCS 880-2456/1-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1181		mg/Kg		118	70 - 130
Toluene	0.100	0.1133		mg/Kg		113	70 - 130
Ethylbenzene	0.100	0.1146		mg/Kg		115	70 - 130
m-Xylene & p-Xylene	0.200	0.2472		mg/Kg		124	70 - 130
o-Xylene	0.100	0.1233		mg/Kg		123	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	111		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-2456/2-A

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2456

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1155		mg/Kg		115	70 - 130	2	35
Toluene	0.100	0.1097		mg/Kg		110	70 - 130	3	35
Ethylbenzene	0.100	0.1117		mg/Kg		112	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2408		mg/Kg		120	70 - 130	3	35
o-Xylene	0.100	0.1207		mg/Kg		121	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 890-575-2 MS

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: SS02

Prep Type: Total/NA

Prep Batch: 2456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U	0.101	0.1006		mg/Kg			
Toluene	<0.00199	U	0.101	0.09622		mg/Kg			

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QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

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

Lab Sample ID: 890-575-2 MS

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: SS02

Prep Type: Total/NA

Prep Batch: 2456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00199	U	0.101	0.09611		mg/Kg			
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2028		mg/Kg			
o-Xylene	<0.00199	U	0.101	0.1005		mg/Kg			

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

Lab Sample ID: 890-575-2 MSD

Matrix: Solid

Analysis Batch: 2480

Client Sample ID: SS02

Prep Type: Total/NA

Prep Batch: 2456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0994	0.09998		mg/Kg					
Toluene	<0.00199	U	0.0994	0.09493		mg/Kg					
Ethylbenzene	<0.00199	U	0.0994	0.09571		mg/Kg					
m-Xylene & p-Xylene	<0.00398	U	0.199	0.2046		mg/Kg					
o-Xylene	<0.00199	U	0.0994	0.1019		mg/Kg					

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

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

Lab Sample ID: MB 880-2377/1-A

Matrix: Solid

Analysis Batch: 2425

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 2377

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1
Total TPH	<50.0	U	50.0	mg/Kg		04/27/21 10:20	04/28/21 10:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	114		70 - 130	04/27/21 10:20	04/28/21 10:35	1
o-Terphenyl	108		70 - 130	04/27/21 10:20	04/28/21 10:35	1

Lab Sample ID: LCS 880-2377/2-A

Matrix: Solid

Analysis Batch: 2425

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2377

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1476	*+	mg/Kg		148	70 - 130

Eurofins Xenco, Carlsbad

QC Sample Results

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

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

Lab Sample ID: LCS 880-2377/2-A

Matrix: Solid

Analysis Batch: 2425

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 2377

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (Over C10-C28)	1000	1231		mg/Kg		123	70 - 130

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

Lab Sample ID: LCSD 880-2377/3-A

Matrix: Solid

Analysis Batch: 2425

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 2377

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1178	*1	mg/Kg		118	70 - 130	23	20
Diesel Range Organics (Over C10-C28)	1000	1020		mg/Kg		102	70 - 130	19	20

	LCSD %Recovery	LCSD Qualifier	Limits
Surrogate			
1-Chlorooctane	110		70 - 130
o-Terphenyl	100		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-2398/1-A

Matrix: Solid

Analysis Batch: 2415

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			04/27/21 19:16	1

Lab Sample ID: LCS 880-2398/2-A

Matrix: Solid

Analysis Batch: 2415

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	254.5		mg/Kg		102	90 - 110

Lab Sample ID: LCSD 880-2398/3-A

Matrix: Solid

Analysis Batch: 2415

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	255.0		mg/Kg		102	90 - 110	0	20

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

GC VOA

Prep Batch: 2392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-1	SS01	Total/NA	Solid	5035	
MB 880-2392/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2392/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2392/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 2456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-2	SS02	Total/NA	Solid	5035	
MB 880-2456/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-2456/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-2456/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-575-2 MS	SS02	Total/NA	Solid	5035	
890-575-2 MSD	SS02	Total/NA	Solid	5035	

Analysis Batch: 2475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-1	SS01	Total/NA	Solid	8021B	2392
MB 880-2392/5-A	Method Blank	Total/NA	Solid	8021B	2392
LCS 880-2392/1-A	Lab Control Sample	Total/NA	Solid	8021B	2392
LCSD 880-2392/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2392

Analysis Batch: 2480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-2	SS02	Total/NA	Solid	8021B	2456
MB 880-2456/5-A	Method Blank	Total/NA	Solid	8021B	2456
LCS 880-2456/1-A	Lab Control Sample	Total/NA	Solid	8021B	2456
LCSD 880-2456/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	2456
890-575-2 MS	SS02	Total/NA	Solid	8021B	2456
890-575-2 MSD	SS02	Total/NA	Solid	8021B	2456

GC Semi VOA

Prep Batch: 2377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-1	SS01	Total/NA	Solid	8015NM Prep	
890-575-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-2377/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-2377/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-2377/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 2425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-1	SS01	Total/NA	Solid	8015B NM	2377
890-575-2	SS02	Total/NA	Solid	8015B NM	2377
MB 880-2377/1-A	Method Blank	Total/NA	Solid	8015B NM	2377
LCS 880-2377/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	2377
LCSD 880-2377/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	2377

Eurofins Xenco, Carlsbad

QC Association Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

HPLC/IC

Leach Batch: 2398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-1	SS01	Soluble	Solid	DI Leach	
890-575-2	SS02	Soluble	Solid	DI Leach	
MB 880-2398/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-2398/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-2398/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 2415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-575-1	SS01	Soluble	Solid	300.0	2398
890-575-2	SS02	Soluble	Solid	300.0	2398
MB 880-2398/1-A	Method Blank	Soluble	Solid	300.0	2398
LCS 880-2398/2-A	Lab Control Sample	Soluble	Solid	300.0	2398
LCSD 880-2398/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	2398

Lab Chronicle

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Client Sample ID: SS01

Lab Sample ID: 890-575-1

Date Collected: 04/26/21 13:10

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2392	04/27/21 13:36	KL	XM
Total/NA	Analysis	8021B		1	2475	04/29/21 15:56	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 14:48	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		1	2415	04/27/21 20:01	CH	XM

Client Sample ID: SS02

Lab Sample ID: 890-575-2

Date Collected: 04/26/21 13:20

Matrix: Solid

Date Received: 04/26/21 16:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			2456	04/28/21 14:55	KL	XM
Total/NA	Analysis	8021B		1	2480	04/29/21 14:19	KL	XM
Total/NA	Prep	8015NM Prep			2377	04/27/21 10:20	DM	XM
Total/NA	Analysis	8015B NM		1	2425	04/28/21 15:13	AJ	XM
Soluble	Leach	DI Leach			2398	04/27/21 16:15	SC	XM
Soluble	Analysis	300.0		1	2415	04/27/21 20:08	CH	XM

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

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

Protocol References:

ASTM = ASTM International

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

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

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: PLU 15 TWR 901H

Job ID: 890-575-1
SDG: TE01921027

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-575-1	SS01	Solid	04/26/21 13:10	04/26/21 16:48	- 0.5
890-575-2	SS02	Solid	04/26/21 13:20	04/26/21 16:48	- 0.5

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



Chain of Custody

Work Order No: _____

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:	Dan Moir	Bill to: (if different)	Kyle Little
Company Name:	WSP	Company Name:	XTO Energy
Address:	3300 North A Street	Address:	3104 East Green Street
City, State ZIP:	Midland, TX 79705	City, State ZIP:	Carlsbad, NM 88220
Phone:	(303) 887-2946	Email:	Spencer.Lo@wsp.com Corey.Kennedy@wsp.com Dan.Moir@wsp.com

Program: ☒ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund State of Project:	
Reporting Level: ☐ I ☐ II ☐ III ☐ ST/UST ☐ RRP ☐ Level IV ☐	Deliverables: EDD ☐ ADAPT ☐ Other: _____

Project Name:	PLU 15 TWR 901H	Turn Around		ANALYSIS REQUEST	Work Order Notes Cost Center: 1665271001 Incident ID: NAPP2102235706 Spill Date: 1/13/2021
Project Number:	TE012921027	Routine	☐		
P.O. Number:		Rush: 3 day			
Sampler's Name:	Spencer Lo	Due Date:			
SAMPLE RECEIPT Temperature (°C): 16.11.4 Received Intact: Yes ☒ No ☐ Cooler Custody Seals: Yes ☒ No ☐ Sample Custody Seals: Yes ☒ No ☐ Total Containers: 1320					
Sample Identification Matrix: S Date Sampled: 4/26/2021 Time Sampled: 1310 Depth: 0.5' Number of Containers: 1		TPH (EPA 8015) BTEX (EPA 0=8021) Chloride (EPA 300.0)		TAT starts the day received 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 Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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
		4-26-21 1648			

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-575-1

SDG Number: TE01921027

Login Number: 575

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-575-1

SDG Number: TE01921027

Login Number: 575

List Number: 2

Creator: Copeland, Tatiana

List Source: Eurofins Midland

List Creation: 04/27/21 03:49 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	



WSP USA

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

February 4, 2022

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

RE: Deferral Request
PLU 15 TWR 901H
Incident Number NAPP2102235706
Eddy County, New Mexico

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of XTO Energy, Inc. (XTO), presents the following Deferral Request detailing site assessment, excavation, and soil sampling activities at the PLU 15 TWR 901H (Site) in Unit M, Section 15, Township 24 South, Range 31 East, in Eddy County, New Mexico (Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil following a release of crude oil and produced water at the Site by safely excavating impacted soil to the extent possible based on the Site conditions and as allowed by XTO safety policy. Based on excavation activities and soil sample laboratory analytical results, XTO is submitting this Deferral Request, describing remediation that has occurred and requesting deferral of final remediation for Incident Number NAPP2102235706.

RELEASE BACKGROUND

On January 13, 2021, a welded joint on a buried flow line failed, resulting in the release of 9.95 barrels (bbls) of crude oil and 29.84 bbls of produced water onto the well pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 8.75 bbls of crude oil and 26.25 bbls of produced water were recovered. XTO immediately reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on January 13, 2021. A Release Notification Form C-141 (Form C-141) was submitted on January 22, 2021. The release was assigned Incident Number NAPP2102235706.

SITE CHARACTERIZATION

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. During December 2020, in an effort to confirm the depth to groundwater in the area, a borehole (C-04508) was advanced to a depth of 111.8 feet bgs via truck-mounted hollow stem



auger. The location of the borehole is approximately 0.31 miles east of the Site and is depicted on Figure 1. A WSP geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The Well Record and Log is included in Attachment 1. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 111.8 feet. The borehole was properly abandoned with hydrated bentonite chips. There are no regional or Site-specific hydrological conditions, such as shallow surface water, karst features, wetlands, or vegetation that suggest the Site is conducive to shallow groundwater.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 5,372 feet east of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

CLOSURE CRITERIA

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

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

SITE ASSESSMENT ACTIVITIES

On February 3, 2021, WSP personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. XTO personnel were at the Site completing the flow line repair at the time of WSP's Site visit. XTO personnel had exposed four buried gas lines and one buried electrical line in the excavation during repairs, and were in process of backfilling the excavation. Impacted soil excavated during the line repair was stockpiled on location for disposal. The excavation was completed to an approximate depth of 4 feet bgs and measured approximately 740 square feet in area. A total of approximately 110 cubic yards of impacted soil was removed during the excavation activities. WSP personnel mapped the line repair excavation extent utilizing a handheld Global Positioning System (GPS) unit so that



delineation activities could be conducted at a later date, once on-site activities were complete. The documented line repair excavation extent is depicted on Figure 2.

DELINEATION ACTIVITIES AND ANALYTICAL RESULTS

Between March 2, 2021 and August 5, 2021, WSP personnel were at the Site to oversee delineation activities. Twelve boreholes (BH01 through BH12) were advanced via hand auger and core-drill within and around the line repair excavation to assess the lateral and vertical extent of impacted soil. The boreholes were advanced to depths ranging from 8 feet to 23 feet bgs. Discrete delineation soil samples were collected from boreholes BH01 through BH12 from depths ranging from 2 feet to 23 feet bgs. Soil from the boreholes was field screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the boreholes were logged on lithologic/soil sampling logs, which are included in Attachment 2. The delineation soil sample locations are depicted on Figure 2. Photographic documentation was conducted during the Site visits. A photographic log is included in Attachment 3.

The delineation soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for delineation soil samples from boreholes BH04 through BH07, and BH11, indicated that BTEX, TPH-GRO/TPH-DRO, or TPH concentrations exceeded the Closure Criteria at depths ranging from 6 feet to 16 feet bgs.

Laboratory analytical results for delineation soil samples from boreholes BH01, BH02, BH03, BH08, BH09, BH10, and BH12 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria at depths ranging from 2 feet to 17 feet bgs. Based on the laboratory analytical results, the lateral and vertical extent of impacted soil was successfully defined, and excavation activities were scheduled.

EXCAVATION ACTIVITIES AND ANALYTICAL RESULTS

During December 2021, WSP personnel were at the Site to oversee excavation activities based on field screening activities and laboratory analytical results for the delineation soil samples. Excavation was completed to remove impacted soil in the areas around boreholes BH04 and BH07. Impacted soil identified in boreholes BH05, BH06, and BH11 could not be safely excavated due to the proximity of active buried gas and electric lines. XTO safety policy restricts soil disturbing activities to a 2-foot radius of any on-site production equipment or active pipelines.



This XTO safety policy is established to protect workers and reduce the likelihood of compromising the foundation of the production equipment and pipelines. This policy was enforced where impacted soil was identified within 2 feet of active buried gas and electric lines in boreholes BH05, BH06, and BH11. Excavation activities around boreholes BH04 and BH07 were performed using a hydro-vacuum, track-mounted backhoe, and transport vehicle. To direct excavation activities, WSP personnel screened soil for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The southern excavation around borehole BH07 was completed to an approximate depth of 6.5 feet bgs and the northern excavation around borehole BH07 was completed to an approximate depth of 12.5 feet bgs.

Following removal of impacted soil to the extent possible, WSP collected 5-point composite soil samples every 200 square feet from the floor and sidewalls of the excavations. 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 and FS02 were collected from the floor of the excavations, from depths of 12.5 feet and 6.5 feet bgs, respectively. Composite soil samples SW01 through SW08 were collected from the sidewalls of the excavations from depths ranging from the ground surface to 12.5 feet bgs. Due to the depth of the excavations, the sidewall samples were collected from two or three depth intervals. The excavation soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extents and excavation soil sample locations are presented on Figure 3.

The combined excavation extents measured approximately 400 square feet at the floor of the excavations and 1,500 square feet at the surface, due to sandy soil and sloped sidewalls. Approximately 55 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 Hobbs, New Mexico. After completion of confirmation sampling, the excavations were backfilled.

Laboratory analytical results for excavation samples FS01, FS02, and SW02 through SW08, collected from the final excavation extents, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results for sidewall sample SW01, collected from ground surface to 4 feet bgs indicated that TPH-GRO/TPH-DRO concentrations exceeded the Closure Criteria. Subsequent vertical sidewall samples SW01A and SW01B collected from 4 feet to 8 feet bgs and 8 feet to 12.5 feet bgs, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Sidewall sample SW01 was collected adjacent to the buried gas line. Further excavation of impacted soil beyond sidewall sample SW01 was limited by XTO safety policy, which restricts soil disturbing activities within 2 feet radius of any active pipelines.

**DEFERRAL REQUEST**

A total of 165 cubic yards of impacted soil were excavated from the Site; however, residual impacted soil was left in place immediately surrounding and beneath four buried gas lines and one buried electrical line, for compliance with XTO safety policy. Laboratory analytical results for excavation sidewall sample SW01, collected from ground surface to 4 feet bgs, and delineation samples from boreholes BH05, BH06, and BH11, collected at depths ranging from 6 feet to 16 feet bgs, indicated that soil with BTEX, TPH-GRO/TPH-DRO, or TPH concentrations exceeding the Closure Criteria was left in place adjacent to or beneath the active lines.

The impacted soil remaining in place is delineated laterally by delineation soil samples from boreholes BH01, BH02, BH03, BH08, BH09, and BH12 and excavation sidewall samples SW02, SW03, SW04, and SW08. The impacted soil remaining in place is delineated vertically by borehole delineation samples BH04D, BH05B, BH06D/BH06E, BH07B, BH11B/BH11C and excavation soil samples FS01, FS02, and SW01A/SW01B. An estimated 236 cubic yards of impacted soil remains in place, assuming a maximum 9-foot depth on the west side and 19-foot depth on the east side based on the delineation soil samples listed above, that were compliant with the Closure Criteria. The deferral area and associated delineation samples are identified on Figure 4.

XTO requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first. WSP and XTO do not believe deferment will result in imminent risk to human health, the environment, or groundwater. Depth to groundwater was confirmed to be greater than 110 feet bgs, the majority of the released fluids were recovered during initial response activities, the impacted soil remaining in place is limited to the area immediately beneath and adjacent to the buried gas and electrical lines and no saturated soil remains in-place. XTO requests deferral of final remediation for Incident Number NAPP2102235706.

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

Sincerely,

WSP USA Inc.

A handwritten signature in black ink that reads 'Kalei Jennings'.

Kalei Jennings
Consultant, Environmental Scientist

A handwritten signature in black ink that reads 'Aimee Cole'.

Aimee Cole
Sr. Consultant, Environmental Scientist



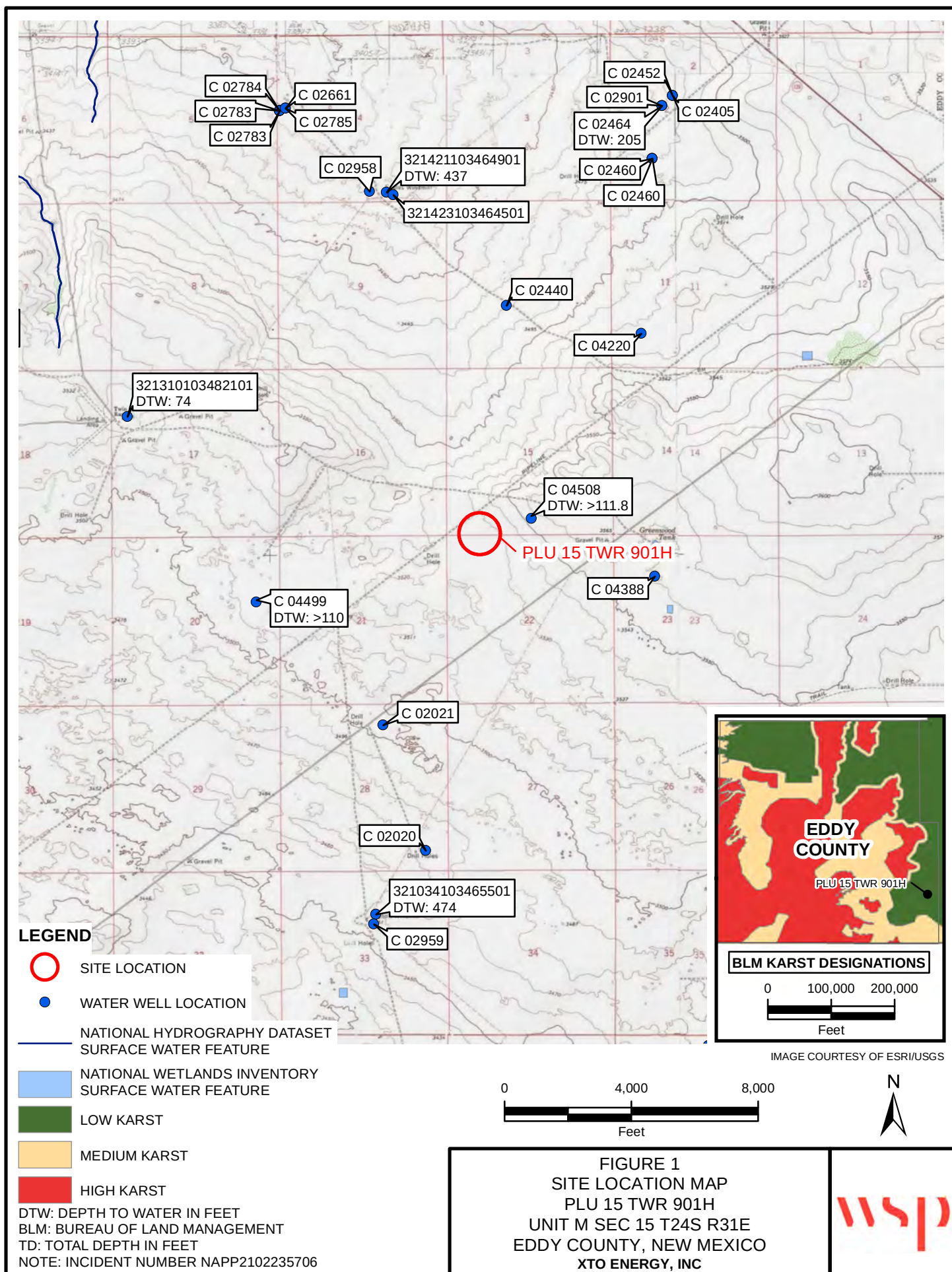
District II
Page 6

cc: Adrian Baker, XTO
Bureau of Land Management

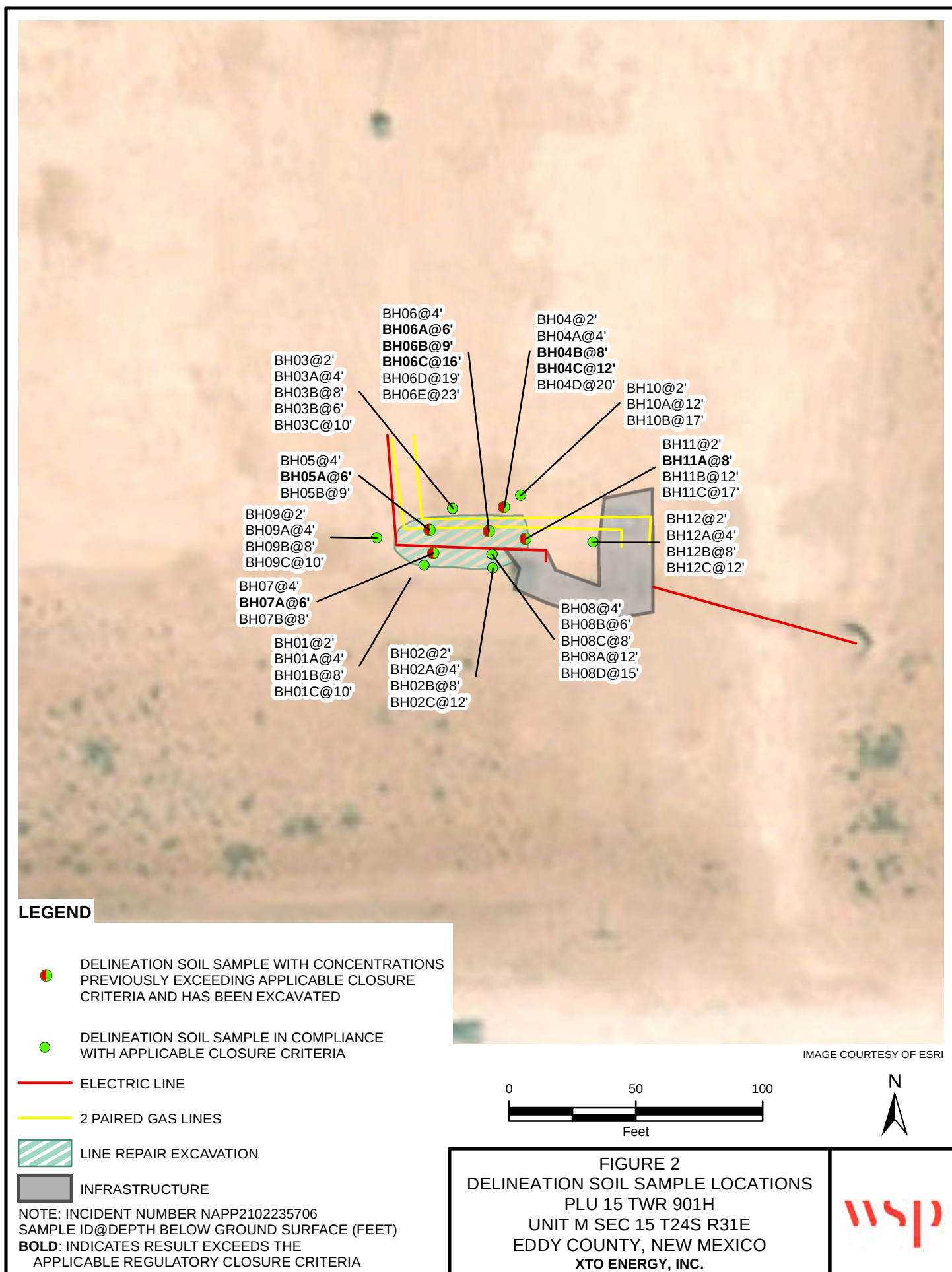
Attachments:

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

FIGURES



P:\XTO Energy\GIS\MXD\012921027_PLU 15 TWR 901H\012921027_FIG01_SL_RECEPTOR_2021.mxd



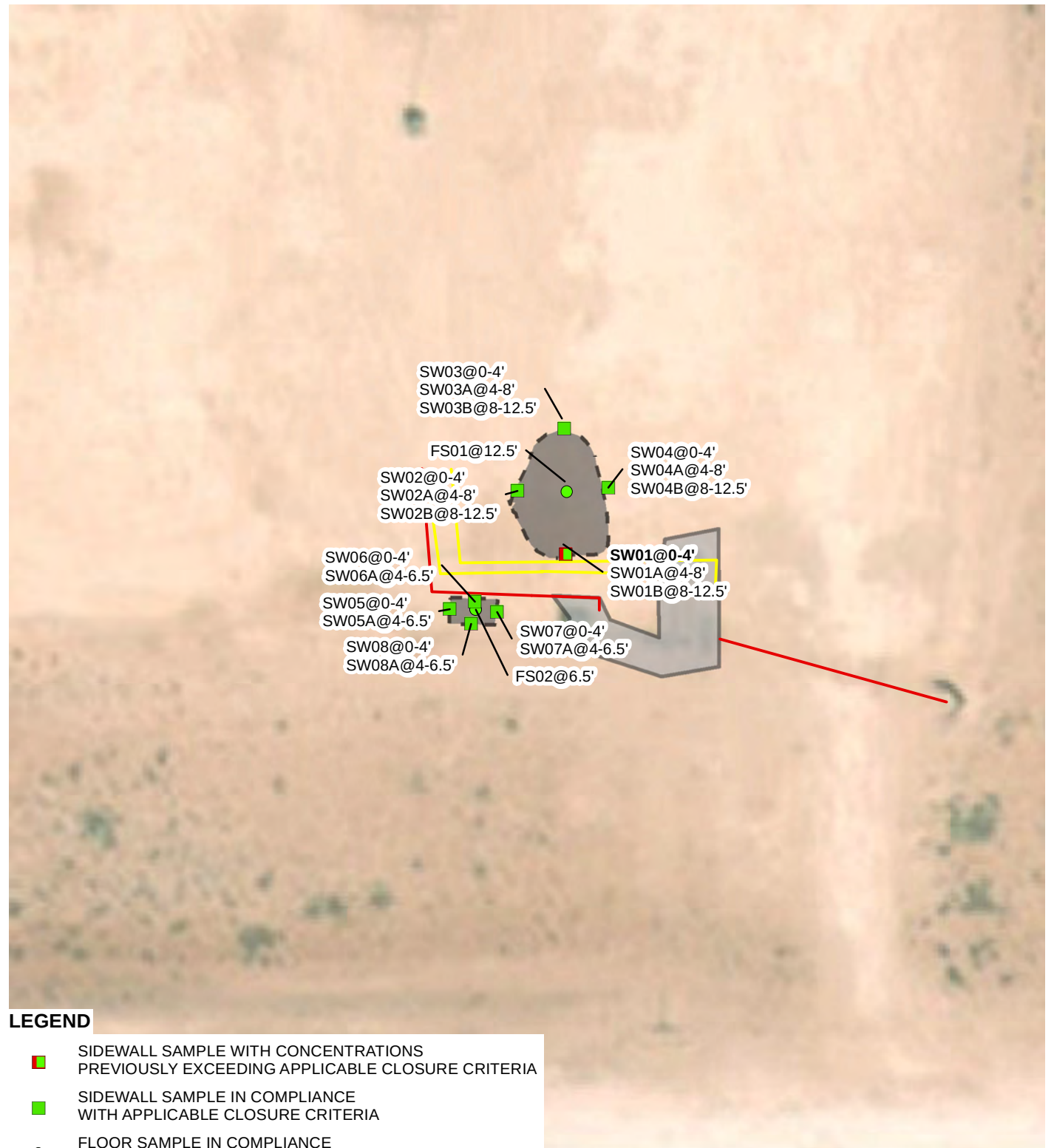


IMAGE COURTESY OF ESRI

LEGEND

■ SIDEWALL SAMPLE WITH CONCENTRATIONS PREVIOUSLY EXCEEDING APPLICABLE CLOSURE CRITERIA

■ SIDEWALL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

● FLOOR SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA

— ELECTRIC LINE

— GAS LINE

EXCAVATION EXTENT

INFRASTRUCTURE

NOTE: INCIDENT NUMBER NAPP2102235706
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

BOLD: INDICATES RESULT EXCEEDS THE APPLICABLE REGULATORY CLOSURE CRITERIA

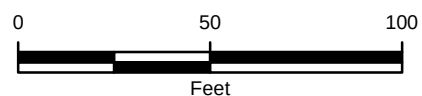
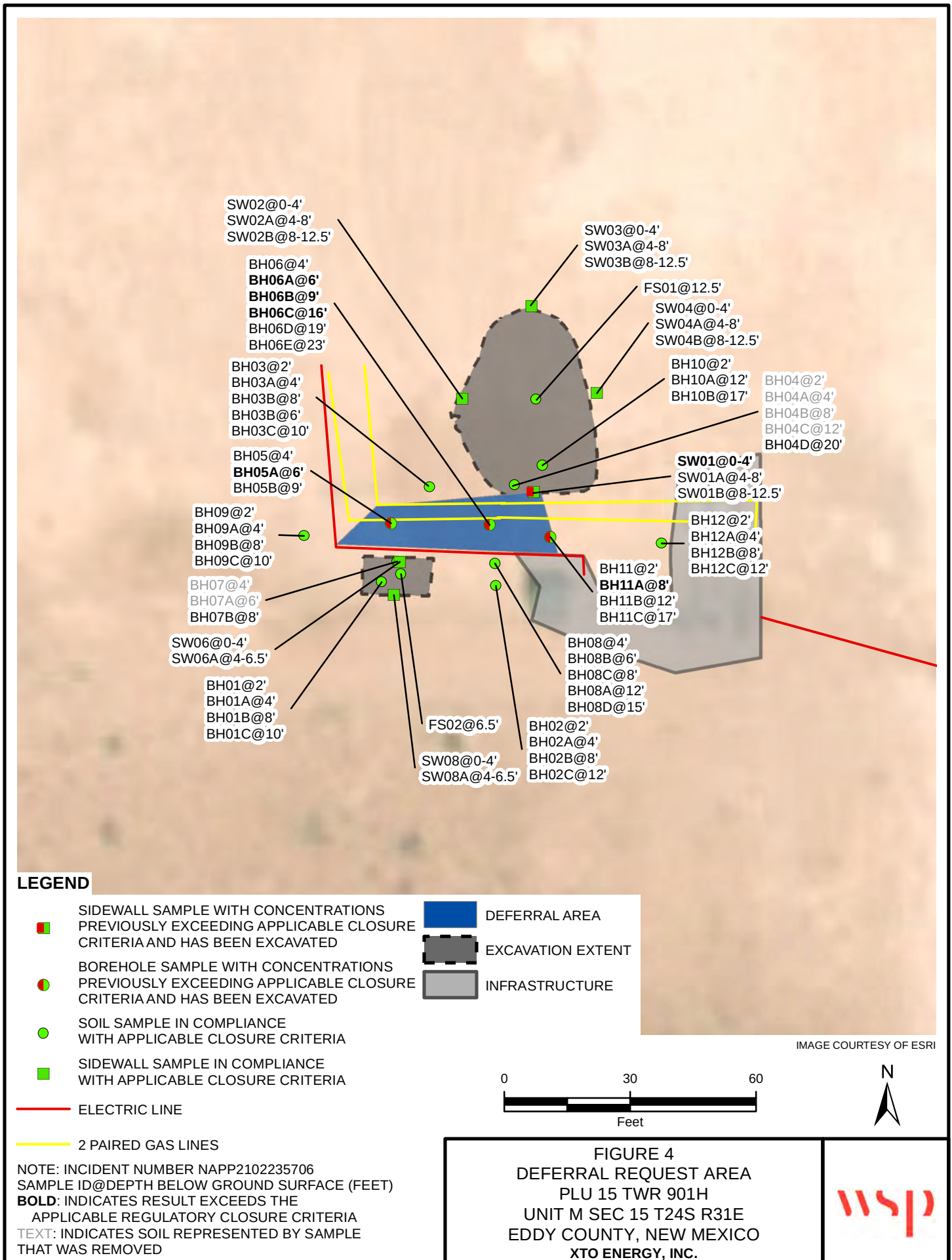


FIGURE 3
EXCAVATION SOIL SAMPLE LOCATIONS
PLU 15 TWR 901H
UNIT M SEC 15 T24S R31E
EDDY COUNTY, NEW MEXICO
XTO ENERGY, INC.





TABLES

Table 1

Soil Analytical Results
PLU 15 TWR 901H
Incident Number NAPP2102235706
XTO Energy, Inc.
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Delineation Samples										
BH01	03/02/2021	2	<0.00202	0.00546	657	<49.9	127	657	784	200
BH01A	03/02/2021	4	<0.00200	0.00205	<49.8	<49.8	<49.8	<49.8	<49.8	<4.95
BH01B	07/29/2021	8	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	42.6
BH01C	07/29/2021	10	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	51.2
BH02	03/02/2021	2	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
BH02A	03/02/2021	4	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	6.49
BH02B	07/29/2021	8	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	10.7
BH02C	07/29/2021	12	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	22.1
BH03	03/02/2021	2	<0.00198	<0.00198	80.7	<49.9	<49.9	80.7	80.7	126
BH03A	03/02/2021	4	<0.00202	<0.00202	125	<50.0	<50.0	125	125	119
BH03B	07/20/2021	6	<0.00201	0.0146	<50.0	<50.0	<50.0	<50.0	<50.0	12.2
BH03C	07/27/2021	8	0.0883	1.01	<49.7	<49.7	<49.7	<49.7	<49.7	12.1
BH03D	07/27/2021	10	<0.00200	0.0508	<49.9	<49.9	<49.9	<49.9	<49.9	<4.96
BH04	03/02/2021	2	<0.00199	<0.00199	171	<49.9	<49.9	171	171	227
BH04A	03/02/2021	4	<0.00200	0.0107	325	<50.0	121	325	446	297
BH04B	07/27/2021	8	1.56	50.1	2,230	2,150	261	4,380	4,640	3,360
BH04C	07/27/2021	12	1.94	36.9	1,150	1,210	142	2,360	2,500	533
BH04D	07/27/2021	20	<0.199	6.76	330	366	<49.8	696	696	196

Table 1

Soil Analytical Results
 PLU 15 TWR 901H
 Incident Number NAPP2102235706
 XTO Energy, Inc.
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
BH05	04/26/2021	4	<0.00199	0.0272	571	<50.0	61.2	571	632	718
BH05A	07/21/2021	6	0.0295	9.33	1,120	327	<50.0	1,447	1,450	777
BH05B	04/27/2021	9	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	41.2
BH06	04/26/2021	4	<0.00200	0.0309	<49.9	<49.9	<49.9	<49.9	<49.9	727
BH06A	04/26/2021	6	<0.00200	1.13	1,740	438	196	2,178	2,370	4,200
BH06B	04/27/2021	9	1.38	51.2	3,690	2,720	554	6,410	6,960	2,570
BH06C	04/27/2021	16	0.279	23.0	3,760	1,870	434	5,630	6,060	552
BH06D	07/20/2021	19	0.362	2.74	179	156	<49.9	335	335	180
BH06E	07/20/2021	23	0.151	2.49	128	121	<50.0	249	249	70.5
BH07	04/26/2021	4	<0.00202	0.0176	728	<50.0	77.1	728	805	731
BH07A	04/26/2021	6	0.00247	1.23	1,880	358	215	2,238	2,450	4,200
BH07B	04/27/2021	8	0.00243	0.0317	<50.0	<50.0	<50.0	<50.0	<50.0	13.9
BH08	04/26/2021	4	<0.00198	0.0248	757	<50.0	86.9	757	844	819
BH08A	07/21/2021	6	<0.00198	0.0114	<49.9	<49.9	<49.9	<49.9	<49.9	43.3
BH08B	07/21/2021	8	<0.00199	0.0263	<50.0	<50.0	<50.0	<50.0	<50.0	40.2
BH08C	04/27/2021	12	0.0854	4.73	630	279	74.7	909	984	4,460
BH08D	07/21/2021	15	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	14.3

Table 1

Soil Analytical Results
 PLU 15 TWR 901H
 Incident Number NAPP2102235706
 XTO Energy, Inc.
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
BH09	07/29/2021	2	<0.00200	<0.00400	<49.8	<49.8	<49.8	<49.8	<49.8	11.2
BH09A	07/29/2021	4	<0.00201	<0.00402	<49.7	<49.7	<49.7	<49.7	<49.7	10.5
BH09B	07/29/2021	8	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	15.5
BH09C	07/29/2021	10	<0.00198	<0.00397	<50.0	<50.0	<50.0	<50.0	<50.0	13.9
BH10	08/03/2021	2	<0.00198	<0.00396	55.4	<49.9	<49.9	<49.9	55.4	20.7
BH10A	08/03/2021	12	0.00556	0.0189	<49.9	<49.9	<49.9	<49.9	<49.9	11.3
BH10B	08/03/2021	17	0.00474	0.0232	<49.8	<49.8	<49.8	<49.8	<49.8	51.2
BH11	08/05/2021	2	0.00383	<0.00398	170	<49.8	<49.8	170	170	817
BH11A	08/05/2021	8	2.20	63.0	2,050	1,770	<50.0	3,820	3,820	2,850
BH11B	08/05/2021	12	0.390	4.75	231	213	<50.0	444	444	433
BH11C	08/05/2021	17	<0.202	1.79	276	248	<49.9	524	524	763
BH12	08/05/2021	2	<0.00199	0.0138	<49.9	<49.9	<49.9	<49.9	<49.9	42.3
BH12A	08/05/2021	4	<0.00199	0.00456	<49.8	<49.8	<49.8	<49.8	<49.8	19.0
BH12B	08/05/2021	8	0.00248	0.0359	<49.9	<49.9	<49.9	<49.9	<49.9	22.8
BH12C	08/05/2021	12	<0.00199	0.0181	<50.0	<50.0	<50.0	<50.0	<50.0	19.9
Excavation Floor Samples										
FS01	12/14/2021	12.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	7.38
FS02	12/15/2021	6.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	57.8

Table 1

Soil Analytical Results
 PLU 15 TWR 901H
 Incident Number NAPP2102235706
 XTO Energy, Inc.
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Excavation Sidewall Samples										
SW01	12/15/2021	0 - 4	0.0206	1.28	729	274	72.3	1,003	1,080	208
SW01A	12/15/2021	4 - 8	<0.00198	0.0280	<49.9	<49.9	<49.9	<49.9	<49.9	7.11
SW01B	12/15/2021	8 - 12.5	<0.00200	0.0110	<49.8	<49.8	<49.8	<49.8	<49.8	<5.04
SW02	12/15/2021	0 - 4	<0.00199	0.0104	<49.9	<49.9	<49.9	<49.9	<49.9	133
SW02A	12/15/2021	4 - 8	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98
SW02B	12/15/2021	8 - 12.5	<0.00202	0.0204	<49.9	<49.9	<49.9	<49.9	<49.9	<4.95
SW03	12/15/2021	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	6.08
SW03A	12/15/2021	4 - 8	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<4.98
SW03B	12/15/2021	8 - 12.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99
SW04	12/15/2021	0 - 4	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	10.5
SW04A	12/15/2021	4 - 8	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	32.5
SW04B	12/15/2021	8 - 12.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	<4.98
SW05	12/15/2021	0 - 4	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	6.54
SW05A	12/15/2021	4 - 6.5	<0.00199	<0.00398	67.1	<49.9	<49.9	67.1	67.1	152
SW06	12/15/2021	0 - 4	<0.00200	<0.00399	163	<49.9	<49.9	163	163	243
SW06A	12/15/2021	4 - 6.5	<0.00200	<0.00399	56.1	<50.0	<50.0	56.1	56.1	71.4

Table 1

Soil Analytical Results
PLU 15 TWR 901H
 Incident Number NAPP2102235706
 XTO Energy, Inc.
 Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
SW07	12/15/2021	0 - 4	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	14.9
SW07A	12/15/2021	4 - 6.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	14.2
SW08	12/15/2021	0 - 4	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	29.6
SW08A	12/15/2021	4 - 6.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	6.14

Notes:

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - motor oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

< - 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

ATTACHMENT 1: REFERENCED WELL RECORDS



PLUGGING RECORD



NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: C-4508- POD1

Well owner: XTO ENERGY (Kyle Littrell)

Phone No.: 432.682.8873

Mailing address: 6401 Holiday Hill Dr.

City: Midland State: Texas Zip code: 79707

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Jackie D. Atkins (Atkins Engineering Associates Inc.)

2) New Mexico Well Driller License No.: 1249 Expiration Date: 04/30/21

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Shane Eldridge

4) Date well plugging began: 1/19/2021 Date well plugging concluded: 1/19/2021

5) GPS Well Location: Latitude: 32 deg, 12 min, 46.69 sec
Longitude: -103 deg, 45 min, 55.29 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 110 ft below ground level (bgl),
by the following manner: weighted tape

7) Static water level measured at initiation of plugging: n/a ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 01/29/2021

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

- 10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

<u>Depth</u> (ft bgl)	<u>Plugging Material Used</u> (include any additives used)	<u>Volume of Material Placed</u> (gallons)	<u>Theoretical Volume of Borehole/ Casing</u> (gallons)	<u>Placement Method</u> (tremie pipe, other)	<u>Comments</u> ("casing perforated first", "open annular space also plugged", etc.)
0-10'	Hydrated Bentonite	Approx. 26 gallons	26 gallons	Augers	
10'-110'	Drill Cuttings	Approx. 163 gallons	163 gallons	Boring	

MULTIPLY	BY	AND OBTAIN
cubic feet x	7.4805	= gallons
cubic yards x	201.97	= gallons

III. SIGNATURE:

I, Jackie D. Atkins, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Jack Atkins

Signature of Well Driller

02/11/2021

Date

2020-1-15_C-4508-POD1_Plugging Record-forsign

Final Audit Report

2021-02-11

Created:	2021-02-11
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAArUGmvmCCqA2D57_XMj-tv5gTnnQ0USgG

"2020-1-15_C-4508-POD1_Plugging Record-forsign" History

-  Document created by Lucas Middleton (lucas@atkinseng.com)
2021-02-11 - 6:15:02 PM GMT- IP address: 69.21.248.123
-  Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2021-02-11 - 6:16:06 PM GMT
-  Email viewed by Jack Atkins (jack@atkinseng.com)
2021-02-11 - 6:35:07 PM GMT- IP address: 74.50.153.115
-  Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2021-02-11 - 6:35:38 PM GMT - Time Source: server- IP address: 74.50.153.115
-  Agreement completed.
2021-02-11 - 6:35:38 PM GMT

05E DTI FEB 12 2021 AM 11:49



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	OSE POD NO. (WELL NO.) POD1 (BH-01)		WELL TAG ID NO. n/a		OSE FILE NO(S). C-4508			
	WELL OWNER NAME(S) XTO Energy (Kyle Littrell)				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 6401 Holiday Hill Dr.				CITY Midland	STATE TX	ZIP 79707	
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32°	MINUTES 12'	SECONDS 46.69" N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
		LONGITUDE -103°	45'	55.29" W	* DATUM REQUIRED: WGS 84			
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE SW SE Sec. 15 T24S R31E								
2. DRILLING & CASING INFORMATION	LICENSE NO. 1249		NAME OF LICENSED DRILLER Jackie D. Atkins			NAME OF WELL DRILLING COMPANY Atkins Engineering Associates, Inc.		
	DRILLING STARTED 12/29/2020		DRILLING ENDED 12/29/2020		DEPTH OF COMPLETED WELL (FT) temporary well material	BORE HOLE DEPTH (FT) 110	DEPTH WATER FIRST ENCOUNTERED (FT) n/a	
	COMPLETED WELL IS: ☐ ARTESIAN ☒ DRY HOLE ☐ SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) n/a		
	DRILLING FLUID: ☐ AIR ☐ MUD ADDITIVES – SPECIFY:							
	DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☒ OTHER – SPECIFY: Hollow Stem Auger							
	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
	FROM	TO						
	0	110	±8.5	Boring- HSA	--	--	--	--
3. ANNULAR MATERIAL	DEPTH (feet bgl)		BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT		
	FROM	TO						

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL	DEPTH (feet bgl)		THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER- BEARING ZONES (gpm)
	FROM	TO				
	0	14	14	SAND, medium-fine grain, poorly graded, some claiche, light-brown-tan, dry	Y ✓ N	
	14	15	1	SAND, fine grain, poorly graded, some claiche, light-brown-tan, dry	Y ✓ N	
	15	25	5	CALICHE, moderately consolidated, silty, some gravel, off-white-tan, dry	Y ✓ N	
	25	46	21	SILTSTONE, mod. consolidated, some sand, red-brown, dry	Y ✓ N	
	46	64	18	CLAYSTONE, mod. consolidated, cohesive, few sand, red-brown, dry	Y ✓ N	
	64	72	8	SANDSTONE, high consolidated, medium-grain, well graded, white/light brown	Y ✓ N	
	72	90	18	CLAYSTONE, high consolidated, cohesive, medium plasticity, few sand, red-brown	Y ✓ N	
	90	101	11	SANDSTONE, high consolidated, fine grain, few silt, white/offwhite	Y ✓ N	
	101	108	7	CLAYSTONE, high consolidated, cohesive, med.-low plasticity, few sand, red-brown	Y ✓ N	
	108	111	3	SANDSTONE, high consolidated, fine grain, few silt, white/offwhite, dry	Y ✓ N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
					Y N	
	METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER - SPECIFY:				TOTAL ESTIMATED WELL YIELD (gpm): 0.00	
	5. TEST; RIG SUPERVISION	WELL TEST	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.			
MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from WSP on-site geologist.						
PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE: Shane Eldridge						
6. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:					
				Jackie D. Atkins		02/11/2021
SIGNATURE OF DRILLER / PRINT SIGNEE NAME			DATE			

FOR OSE INTERNAL USE		WR-20 WELL RECORD & LOG (Version 06/30/2017)	
FILE NO.	POD NO.	TRN NO.	
LOCATION	WELL TAG ID NO.		PAGE 2 OF 2

USGS 321421103464901 24S.31E.04.433422

Available data for this site

Well Site

DESCRIPTION:

Latitude 32°14'23.7", Longitude 103°46'47.8" NAD83
Eddy County, New Mexico , Hydrologic Unit 13060011
Well depth: 627 feet
Land surface altitude: 3,419.00 feet above NGVD29.
Well completed in "Rustler Formation" (312RSLR) local aquifer

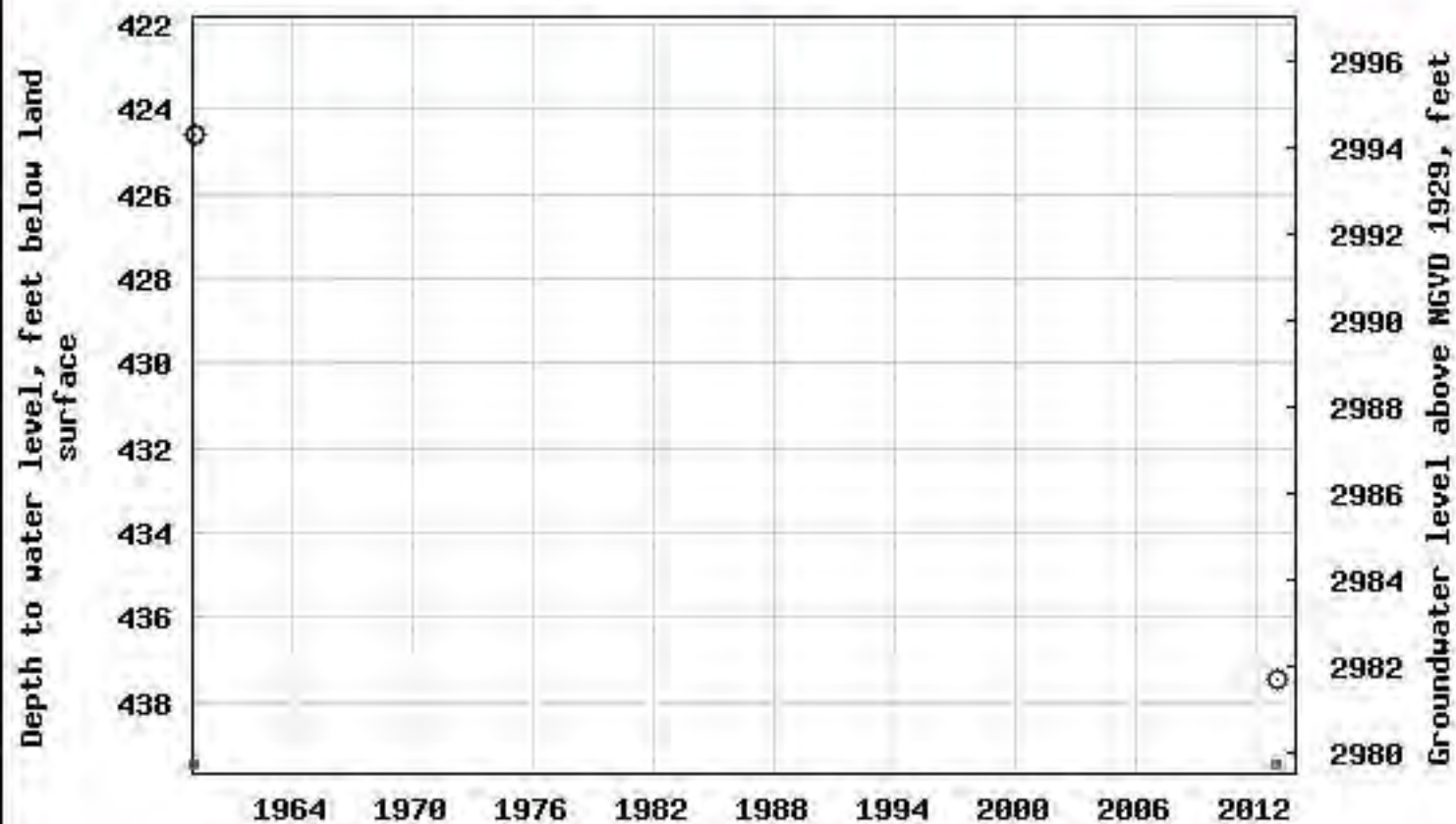
AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1959-03-13	2013-01-16	2
Revisions	Unavailable (site:0) (timeseries:0)		

OPERATION:

Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site to [New Mexico Water Science Center Water-Data
Inquiries](#)

USGS 321421103464901 24S.31E.04.433422



ATTACHMENT 2: LITHOLOGIC/SAMPLING LOGS

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH 01		Date: 03/02/2021				
		Site Name: PLU 15 TWR 901H						
		RP or Incident Number: NAPP2102235706						
		WSP Job Number: 31403236.020.0129						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.2103991, -103.7705425		Field Screening: Hach chloride strips, PID		Hole Diameter:				
				Total Depth: 10 feet				
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	436	28.0	N	BH 01	2	2	SM	Sand, medium to fine grain, no stain, odor, moderately sorted, caliche, some gravels
D	<186	5.6	N	BH 01A	4	4	SM	Sandy clay, no odor, no stain, medium to fine, well sorted, low plasticity, no cohesion
					6	6		
M	<179.2	9.6	N	BH 01B	8	8	SM	Sand, trace silt and clay, poorly graded, high plasticity, no odor, no stain
M	<179.2	17.7	N	BH 01C	10	10	SM	Sand, trace silt and clay, poorly graded, high plasticity, brownish caliche gravel, no stain, no odor
TD @ 10 feet bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name: BH 02		Date: 03/02/2021		
					Site Name: PLU 15 TWR 901H				
					RP or Incident Number: NAPP2102235706				
					WSP Job Number: 31403236.020.0129				
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long: 32.2103962, -103.7704544				Field Screening: Hach chloride strips, PID		Logged By: SL		Method: Hand Auger, Coredrill	
						Hole Diameter:		Total Depth: 12 feet	
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
D	<186	4.2	N	BH 02	2	2	SM	Sandy clay, no odor, no stain, medium to fine, well sorted, low plasticity, no cohesion	
D	<186	4.4	N	BH 02A	4	4	SM		
					6				
M	<179.2	0.9	N	BH 02B	8	8	SM	Sand, red, moist, fine silty, poorly graded, trace clay, high plasticity, no stain, no odor	
					10				
M	<179.2	0.4	N	BH 02C	12	12	SM	Sand, brown, moist, fine silty, poorly graded, trace clay, high plasticity, caliche gravel, no stain, no odor	
TD @ 12 feet bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name: BH 03		Date: 03/02/2021		
					Site Name: PLU 15 TWR 901H				
					RP or Incident Number: NAPP2102235706				
					WSP Job Number: 31403236.020.0129				
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long: 32.2104522, -103.7705048				Field Screening: Hach chloride strips, PID		Logged By: SL		Method: Hand Auger, Coredrill	
						Hole Diameter:		Total Depth: 10 feet	
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
M	297	6.9	N	BH 03	2	2	SM	Sand, medium to fine grain, no stain, odor, moderately sorted, caliche, some gravels	
M	297	22.2	N	BH 03A	4	4	SM	Sandy clay, no odor, no stain, medium to fine, well sorted, low plasticity, no cohesion	
M	297	22.2	N	BH 03B	6	6	SM	Sandy clay, no odor, no stain, medium to fine, well sorted, low plasticity, no cohesion	
M	370	14.4	N	BH 03C	8	8	SM	Sand, red, moist, silty, fine grain, poorly graded, clay, no stain, no odor	
M	370	1.1	N	BH 03D	10	10	SM	Sand, red, moist, silty, fine grain, poorly graded, clay, no stain, no odor	
TD @ 10 feet bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH 04		Date: 03/02/2021				
		Site Name: PLU 15 TWR 901H						
		RP or Incident Number: NAPP2102235706						
		WSP Job Number: 31403236.020.0129						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.2104533, -103.7704393		Field Screening: Hach chloride strips, PID		Hole Diameter:				
				Total Depth: 20 feet				
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
D	493	45.7	N	BH 04	2	2	SM	Sand, medium to fine grain, no stain, odor, moderately sorted, caliche, some gravel
D	554	66.7	N	BH 04A	4	4	SM	Sand, medium to fine grain, no stain, odor, moderately sorted, caliche, some gravel
						6		
M	678	2,413.6	N	BH 04B	8	8	SM	Sand, red, moist, silty, fine grain, poorly graded, clay, no stain, odor
						10		
M	1,182	347.8	N	BH 04C	12	12	SM	Sand, brown, moist, silty, fine grain, poorly graded, clay, no stain, odor
						14		
						16		
						18		
M	370	640.9	N	BH 04D	20	20	SM	Sand, brown, moist, silty, fine grain, poorly graded, clay, no stain, odor
TD @ 20 feet bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH 05		Date: 04/26/2021				
		Site Name: PLU 15 TWR 901H						
		RP or Incident Number: NAPP2102235706						
		WSP Job Number: 31403236.020.0129						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.2104377, -103.7705351			Field Screening: Hach chloride strips, PID		Logged By: SL Hole Diameter: Method: Coredrill Total Depth: 9 feet			
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
						2		
D	1235	46.3	N	BH 05	4	4	SM	Sandy clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel
D	2,022	1007	N	BH 05A	6	6	SM	Sandy clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel
D	<186	55.6	N	BH 05B	9	9	SM	Sand, tan light brown, odor, no stain, medium to fine grained, well sorted
TD @ 9 feet bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name: BH 06		Date: 04/26/2021		
					Site Name: PLU 15 TWR 901H				
					RP or Incident Number: NAPP2102235706				
					WSP Job Number: 31403236.020.0129				
LITHOLOGIC / SOIL SAMPLING LOG									
Lat/Long: 32.2104359, -103.7704592				Field Screening: Hach chloride strips, PID		Hole Diameter:		Method: Coredrill	
								Total Depth: 23 feet	
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no									
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks	
						0			
						2			
M	1235	46.3	N	BH 06	4	4	SM	Sandy clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel	
M	1,894	1,118	N	BH 06A	6	6	SM	Sandy clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel	
M	4,378	1,578	N	BH 06B	9	9	SM	Sandy clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel	
						12			
						14			
M	499	1,030	N	BH 06C	16	16	SM	Sand with caliche, tan, light brown, odor, no stain, medium to fine grained, well sorted	
M	257.6	358.8	N	BH 06D	19	19	SM	Sand, moist, poorly graded, fine grained, brown, no stain, odor	
M	255	476	N	BH 06E	23	23	SM	Sand, moist, poorly graded, fine grained, brown, no stain, odor	
TD @ 23 feet bgs									

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH 07		Date: 04/26/2021				
		Site Name: PLU 15 TWR 901H						
		RP or Incident Number: NAPP2102235706						
		WSP Job Number: 31403236.020.0129						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.2104124, -103.7705305		Field Screening: Hach chloride strips, PID		Hole Diameter:				
				Total Depth: 8 feet				
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
						2		
M	1,235	46.3	N	BH 07	4	4	SM	Sandy clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel
M	2,156	1,092	N	BH 07A	6	6	SM	Clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel
M	<186	36.2	N	BH 07B	8	8	SM	Caliche with sand, odor, no stain, medium to fine grained brown sand
TD @ 8 feet bgs								

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220								BH or PH Name: BH 08		Date: 04/26/2021	
								Site Name: PLU 15 TWR 901H			
								RP or Incident Number: NAPP2102235706			
								WSP Job Number: 31403236.020.0129			
LITHOLOGIC / SOIL SAMPLING LOG								Logged By: SL		Method: Coredrill	
Lat/Long: 32.2104107, -103.7704555				Field Screening: Hach chloride strips, PID				Hole Diameter:		Total Depth: 15 feet	
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no											
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks			
						0					
						2					
M	1,139	48.9	N	BH 08	4	4	SM	Sandy clay, low plasticity, cohesive, odor, no stain, medium to fine grained, tan brown, caliche gravel			
M	< 184	0.3	N	BH 08A	6	6	SM	Sand, moist, brown, poorly graded, fine grain			
M	< 184	1.0	N	BH 08B	8	8	SM	Sand, fine grain, moist, brown, silt, caliche, gravel			
						10					
M	5,651	1,229	N	BH 08C	12	12	SM	Sand with caliche, tan light brown, odor, no stain, medium to fine grained, well sorted			
M	< 184	1.9	N	BH 08D	15	15	SM	Sand, moist, brown, poorly graded, fine grain, silty, clay, red			
TD @ 15 feet bgs											

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH 09		Date: 07/29/2021				
		Site Name: PLU 15 TWR 901H						
		RP or Incident Number: NAPP2102235706						
		WSP Job Number: 31403236.020.0129						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.2104297, -103.7706017		Field Screening: Hach chloride strips, PID		Hole Diameter:				
				Total Depth: 10 feet				
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
M	<179.2	0.2	N	BH 09	2	2	SM	Sand, moist, fine, silty, poorly graded, clay, high plasticity
M	<179.2	0.8	N	BH 09A	4	4	SM	Sand, moist, fine, silty, poorly graded, clay, high plasticity
						6		
M	<179.2	1.1	N	BH 09B	8	8	SM	Sand, moist, fine grain, silty, poorly graded, brown, high plasticity, caliche gravel
M	<179.2	1.7	N	BH 09C	10	10	SM	Sand, moist, fine grain, silty, poorly graded, brown, high plasticity, caliche gravel
TD @ 10 feet bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220					BH or PH Name: BH 10		Date: 08/03/2021	
					Site Name: PLU 15 TWR 901H			
					RP or Incident Number: NAPP2102235706			
					WSP Job Number: 31403236.020.0129			
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.210475, -103.7704178				Field Screening: Hach chloride strips, PID		Hole Diameter:		Total Depth: 17 feet
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	<179.2	0.3	N	BH 10	2	0 2 4 6 8 10	SM	Sand, red, moist, poorly graded, fine grain, clay, low plasticity, no stain, no odor
M	<179.2	9.9	N	BH 10A	12	12 14	SM	Sand, tan, moist, poorly graded, fine grain, trace silt, low plasticity, no stain, no odor
M	<179.2	8.6	N	BH 10B	17	17	SM	Sand, tan, moist, poorly graded, fine grain, trace silt, low plasticity, no stain, no odor
TD @ 17 feet bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH 11		Date: 08/05/2021				
		Site Name: PLU 15 TWR 901H						
		RP or Incident Number: NAPP2102235706						
		WSP Job Number: 31403236.020.0129						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.2104277, -103.7704124		Field Screening: Hach chloride strips, PID		Hole Diameter:				
				Total Depth: 17 feet				
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
M	554	11.9	N	BH 11	2	0	SM	Sand, reddish brown, fine silt, poorly graded, moist, clay, low plasticity, caliche gravel
						2		
						4		
						6		
M	3,360	811.4	N	BH 11A	8	8	SM	Sand, brown, fine silt, poorly graded, moist, clay, low plasticity, caliche gravel
						10		
M	448	289.5	N	BH 11B	12	12	SM	Sand, brown, fine silt, poorly graded, moist, clay, low plasticity, caliche gravel
						14		
M	1,288	379.4	N	BH 11C	17	17	SM	Sand, brown, fine silt, poorly graded, moist, clay, low plasticity, caliche gravel
TD @ 17 feet bgs								

 WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220		BH or PH Name: BH 12		Date: 08/05/2021				
		Site Name: PLU 15 TWR 901H						
		RP or Incident Number: NAPP2102235706						
		WSP Job Number: 31403236.020.0129						
LITHOLOGIC / SOIL SAMPLING LOG								
Lat/Long: 32.2104235, -103.770325		Field Screening: Hach chloride strips, PID		Hole Diameter:				
				Total Depth: 12 feet				
Comments: All chloride field screenings include a 40% correction factor M-moist; D-dry; Y-yes; N-no								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						0		
M	<179.2	7.7	N	BH 12	2	2	SM	Sand, reddish brown, poorly graded, moist, clay, low plasticity, caliche gravel
M	<179.2	10.0	N	BH 12A	4	4	SM	Sand, reddish brown, poorly graded, moist, clay, low plasticity, caliche gravel
						6		
M	<179.2	5.0	N	BH 12B	8	8	SM	Sand, brown, poorly graded, moist, clay, low plasticity, caliche gravel
						10		
M	<179.2	10.6	N	BH 12C	12	12	SM	Sand, brown, poorly graded, moist, clay, low plasticity, caliche gravel
TD @ 12 feet bgs								

ATTACHMENT 3: PHOTOGRAPHIC LOG



PHOTOGRAPHIC LOG

XTO Energy, Inc.	PLU 15 TWR 901H Eddy County, NM	NAPP2102235706
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Photo No.	Date	
1	February 3, 2021	
Eastern view of initial excavation activities during line repair.		 A photograph showing an excavation site. In the foreground, there is a large, deep, and irregularly shaped pit in the ground, with visible tire tracks and loose soil. In the background, a yellow excavator and a red truck are parked on a flat, sandy area. A person in a purple shirt and white hard hat is standing near a green metal container on the right side of the frame. The sky is clear and blue.

Photo No.	Date	
2	February 3, 2021	
Western view of initial excavation activities during line repair.		 A photograph showing a wide view of an excavation site. The foreground is dominated by a large, deep, and irregularly shaped pit in the ground, with visible tire tracks and loose soil. In the background, a large, conical pile of dirt is visible on the left side. The sky is clear and blue.



PHOTOGRAPHIC LOG

XTO Energy, Inc.	PLU 15 TWR 901H Eddy County, NM	NAPP2102235706
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Photo No.	Date	
3	July 27, 2021	
View of delineation activities using coredrill.		 A photograph showing a white pickup truck parked on a dirt field. A coredrill is being used to create a hole in the ground. A person is visible near the truck. In the background, there is a large industrial building and some utility poles.

Photo No.	Date	
4	April 27, 2021	
View of delineation activities.		 A photograph showing two yellow excavators working on a dirt field. One excavator is in the foreground, and another is in the background. A large white water tank is visible between the excavators. A person's leg is visible in the bottom right corner. In the background, there is a large industrial building and some utility poles.



PHOTOGRAPHIC LOG

XTO Energy, Inc.	PLU 15 TWR 901H Eddy County, NM	NAPP2102235706
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Photo No.	Date	
5	December 13, 2021	
View of hydrovac exposing lines prior to excavation activities.		A white hydrovac truck with a long, articulated boom is parked on a dirt field. The boom is extended upwards. In the background, there is a small, dark, rectangular utility building and some power lines. The sky is blue with some clouds.

Photo No.	Date	
6	December 13, 2021	
View of hydrovac exposing lines prior to excavation activities.		A close-up view of the ground where a hydrovac has been used to expose lines. There is a long, narrow trench and a circular hole in the dirt. A person is visible in the background near a utility building.



PHOTOGRAPHIC LOG

XTO Energy, Inc.	PLU 15 TWR 901H Eddy County, NM	NAPP2102235706
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Photo No.	Date	
7	December 14, 2021	
View of excavation activities.		 A yellow excavator is shown from a side profile, working in a deep, narrow trench. The excavator's arm and bucket are visible, positioned over the trench. The ground is dry and sandy. In the background, there are utility poles and a clear blue sky.

Photo No.	Date	
8	December 14, 2021	
View of excavation activities.		 A yellow excavator is shown from a side profile, working in a large, deep pit. The excavator's arm and bucket are visible, positioned over the pit. The ground is dry and sandy. In the background, there are utility poles and a clear blue sky.



PHOTOGRAPHIC LOG

XTO Energy, Inc.	PLU 15 TWR 901H Eddy County, NM	NAPP2102235706
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Photo No.	Date	
9	December 15, 2021	
View of excavation activities.		 A yellow CAT excavator is shown working on a large, deep excavation pit. The excavator is positioned on the right side of the pit, with its arm extended over the edge. The pit is filled with reddish-brown soil. In the background, there is a black structure and some utility poles under a cloudy sky.

Photo No.	Date	
10	December 15, 2021	
View of excavation activities.		 A yellow CAT excavator is shown working on a large, deep excavation pit. The excavator is positioned on the right side of the pit, with its arm extended over the edge. The pit is filled with reddish-brown soil. In the background, there are two white pickup trucks parked on a dirt road, and some utility poles under a clear sky.

District I

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

District II

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

District III

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

District IV

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

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

CONDITIONS

Action 79217

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 79217
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	XTO's deferral requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first is approved. The deferred C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	2/22/2022