

June 25, 2022

District 1 New Mexico Oil Conservation Division 1625 North French Drive Hobbs, New Mexico 88240

Re: Remediation Work Plan Broadcaster 29 Federal 003H Incident Numbers NAPP2132773092 and NAPP2201938653 Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this Remediation Work Plan to document site assessment, excavation, and soil sampling activities completed to date from two separate release events, each resulting from crude oil flare fires at the Site. The following Work Plan proposes installation of a depth to water boring to confirm the Closure Criteria at the Site.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit B, Section 29, Township 23 South, Range 34 East, in Lea County, New Mexico (32.282° N, 103.494° W) and is associated with oil and gas exploration and production operations on private land.

NAPP2132773092

On October 26, 2021, the heater failed to dump, causing approximately 0.5 barrels (bbls) of crude oil to release out of the flare. The released crude oil ignited and extinguished itself after reaching the ground. COG reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) on October 28, 2021 and submitted a Release Notification Form C-141 (Form C-141) on November 23, 2021. The release was assigned Incident Number NAPP2132773092.

NAPP2201938653

On January 4, 2022, the heater failed to dump, causing approximately 0.2 bbls of crude oil to release out of the flare. The released crude oil ignited and extinguished itself after reaching the ground. COG reported the release immediately via email to the NMOCD on January 5, 2022 and submitted a Form C-141 on January 19, 2022. The release was assigned Incident Number NAPP2201938653.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized 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).

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 601 North Marienfeld Street | Midland, TX 79701 | ensolum.com Texas PG Firm No. 50588 | Texas PE Firm No. F-21843 Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 321734103290001, located approximately 1.14 miles northeast of the Site. The groundwater well has a reported depth to groundwater of 345 feet bgs and a total depth of 400 feet bgs. Ground surface elevation at the groundwater well location is 3,061 feet above mean sea level (amsl), which is approximately 13 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. Regionally, depth to groundwater appears to range from 130 feet bgs to 475 feet bgs, indicating groundwater beneath the Site is resonalby estimated to be greater than 100 feet bgs. The referenced well records are included in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is a palustrine, located approximately 511 feet south 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.

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On January 7 and March 29, 2022, Site assessment activities were conducted to evaluate the two release events based on information provided on the Form C-141's and visual observations. Seven preliminary assessment soil samples (SS01 through SS07) were collected around the flare stack at a depth of 0.5 feet bgs, to assess the lateral extent of the releases. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach[®] chloride QuanTab[®] test strips. The visible release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

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

Broadcaster 29 Federal 003H

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Laboratory analytical results for preliminary soil sample SS02 indicated TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil samples SS01 and SS03 through SS07 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Additionally, soil samples SS05 through SS07, collected around the flare stack were compliant with the most stringent Table 1 Closure Criteria, and successfully defined the lateral extent of the release and confirmed no fluids migrated off pad. Based on laboratory analytical results for the preliminary soil sample SS02, excavation activities appeared to be warranted.

EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

On March 29, 2022, Ensolum personnel were at the Site to oversee site assessment and excavation activities based on preliminary soil sample SS02.

Excavation activities were performed via backhoe and transport vehicle. To direct excavation activities, soil was field screened for VOCs and chloride. The excavation was completed to a depth of 0.75 feet bgs. Photographic documentation is included in Appendix B.

Following removal of impacted soil, a 5-point composite soil sample was collected based on a frequency of every 200 square feet from the floor of the excavation. The 5-point composite sample was collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil sample FS01 was collected from the floor of the excavation at a depth of 0.75 feet bgs. Due to the shallow depth of the excavation, soil from the sidewalls was incorporated into the floor sample. The excavation and lateral delineation soil samples were handled and analyzed following the same procedures as described above. The excavation extent and excavation confirmation soil sample location are presented on Figure 3.

The excavation measured approximately 195 square feet in areal extent. A total of approximately 5 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico.

Laboratory analytical results for excavation confirmation floor sample FS01 indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix C.

PROPOSED REMEDIATION WORK PLAN

COG proposes installation of a depth to water boring within 0.5 miles of the release to confirm the applied Closure Criteria at the Site.

In order to confirm depth to groundwater is greater than 100 feet bgs at the Site and confirm the applied Closure Criteria, Ensolum and COG propose to complete a depth to water boring within 0.5 miles of the release. The soil boring will be advanced until groundwater is encountered or to a maximum depth of approximately 110 feet bgs. An Ensolum geologist will log and describe soils continuously and will document observations on a lithologic/ soil sampling log. The borehole will be left open for a minimum of 72 hours to allow for the potential slow infill of groundwater. Following the 72-hour waiting period, depth to groundwater will be measured or the Ensolum geologist will confirm groundwater is absent in the boring. The borehole will be properly abandoned following New Mexico Office of the State Engineer (NMOSE) procedures. Ensolum and COG will include documentation of the soil boring installation and lithologic/ soil sampling log in the subsequent closure request if groundwater is confirmed to be greater than 100 feet bgs.

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The depth to water boring will be completed as soon as possible following approval from the surface landowner and scheduling with a New Mexico licensed driller. Ensolum will present the drilling schedule within 60 days of approved Work Plan. The Final C-141 is attached in Appendix E.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely, Ensolum, LLC

alei Jennings

Kalei Jennings Senior Scientist

Daniel R. Moir, P.G. Senior Managing Geologist

cc: Charles Beauvais, COG Operating, LLC

Appendices:

- Figure 1 Site Location Map
- Figure 2 Preliminary Soil Sample Locations
- Figure 3 Excavation Soil Sample Locations
- Table 1Soil Sample Analytical Results
- Appendix A Referenced Well Records
- Appendix B Photographic Log
- Appendix C Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix D NMOCD Sample Notification
- Appendix E Final C-141



FIGURES

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TABLE

ENSOLUM

TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Broadcaster 29 Federal 003H COG Operating, LLC Lea County, New Mexico												
Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)		
NMOCD Table 1 C	losure Criteria (NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000		
				Prelimina	ry Assessment S	oil Samples	•	•	•	•		
SS01	01/07/2022	0.5	<0.00200	<0.00399	<49.9	271	<49.9	271	271	23.0		
SS02	01/07/2022	0.5	<0.00199	<0.00398	<250	8,710	<250	8,710	8,710	122		
SS03	01/07/2022	0.5	<0.00200	<0.00401	<49.9	283	<49.9	283	283	283		
SS04	01/07/2022	0.5	<0.00199	<0.00398	<49.9	64.4	<49.9	64.4	64.4	77.1		
SS05	03/29/2022	0.5	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	<5.00		
SS06	03/29/2022	0.5	<0.00201	<0.00402	<49.9	14.5	<49.9	14.5	14.5	59.3		
SS07	03/29/2022	0.5	<0.00204	<0.00408	<50.0	<50.0	<50.0	<50.0	<50.0	6.94		
				Excav	ation Floor Soil S	amples						
FS01	03/29/2022	0.75	<0.00198	<0.00396	<49.9	167	<49.9	167	167	22.3		

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes DRO: Diesel Range Organics ORO: Oil Range Organics TPH: Total Petroleum Hydrocarbon

GRO: Gasoline Range Organics

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard for chloride in the top 4 feet is 600 mg/kg



APPENDIX A

Referenced Well Records



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources	Data Category:	Geographic Area:		
oodo water Resources	Groundwater 🗸	United States	~	GO

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- Full News 🔊

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

Search Results -- 1 sites found

site_no list =

• 321734103290001

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 321734103290001 23S.34E.16.333312

Available data for this site Groundwater: Field measurements V GO

Lea County, New Mexico Hydrologic Unit Code 13070007 Latitude 32°17'53", Longitude 103°28'59" NAD27 Land-surface elevation 3,478.00 feet above NGVD29 The depth of the well is 400 feet below land surface. This well is completed in the Other aquifers (N9999OTHER) national aquifer.



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

Questions about sites/data? Feedback on this web site Automated retrievals Help Data Tips **Explanation of terms**



National Water Information System: Web Interface

USGS Water Resources

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Data Category: **Geographic Area:** ✓ United States Groundwater

~ GO

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- Explore the NEW USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News 🔝

Groundwater levels for the Nation

Important: <u>Next Generation Monitoring Location Page</u>

Search Results -- 1 sites found

Agency code = usgs

site_no list =

• 321734103290001

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

USGS 321734103290001 23S.34E.16.333312

Lea County, New Mexico Latitude 32°17'53", Longitude 103°28'59" NAD27 Land-surface elevation 3,478.00 feet above NGVD29 The depth of the well is 400 feet below land surface. This well is completed in the Other aquifers (N9999OTHER) national aquifer. This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data

Tab-separated data

Graph of data

Reselect period

.

Date	Time	? Water- level date- time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water- level approval status
1971-01-13	3	D	62610		3133.95	NGVD29	1	Z			β
1971-01-13	3	D	62611		3135.58	NAVD88	1	Z			A
1971-01-13	3	D	72019	344.05			1	Z			A
1976-12-16	5	D	62610		3130.62	NGVD29	1	Z			A
1976-12-16	5	D	62611		3132.25	NAVD88	1	Z			A
1976-12-16	5	D	72019	347.38			1	Z			A
1981-03-30)	D	62610		3132.60	NGVD29	1	Z			A
1981-03-30)	D	62611		3134.23	NAVD88	1	Z			Д
1981-03-30)	D	72019	345.40			1	Z			A
1986-03-21	L	D			3130.20	NGVD29	1	Z			A
1986-03-21	L	D	62611		3131.83	NAVD88	1	Z			A
1986-03-21	L	D		347.80			1	Z			A
1996-03-08		D			3132.70	NGVD29	1	_			A
1996-03-08		D			3134.33	NAVD88	1				A
1996-03-08	3	D	72019	345.30			1	S			A

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Source of measurement		Not determined
Water-level approval status	А	Approved for publication Processing and review completed.

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WATER RIGHT SUMMARY



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New Mexico Office of the State Engineer **Point of Diversion Summary**

	(1	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)				(NAD83 UTM in meters)		
OD Number	Q64 Q16 Q4	Sec	Tws	Rng	Χ	Y		
P 00618	1 2 4	22	23S	34E	645713	3573539* 🧧		
e: 46	Driller Compa	ny:	ABI	BOTT BI	ROTHERS	COMPANY		
ABBOTT, MURF	ELL							
e: 05/01/1980	Drill Finish Da	te:	05	/05/1980) Pl	ug Date:	06/10/1981	
05/09/1980	PCW Rcv Date	e:			So	urce:	Shallow	
	Pipe Discharge	e Size	:		Es	timated Yield	:	
7.00	Depth Well:		42	8 feet	De	pth Water:	295 feet	
ater Bearing Stratifi	cations: To	op B	ottom	Descri	ption			
	2	95	428	Other/U	Unknown			
Casing Perfe	orations: To	op B	ottom					
	3.	58	428					
	P 00618 e: 46 ABBOTT, MURF e: 05/01/1980 05/09/1980 7.00 fater Bearing Stratifi	OD Number Q64 Q16 Q4 P 00618 1 2 4 P 00618 1 2 4 e: 46 Driller Compa ABBOTT, MURRELL ABBOTT, MURRELL Finish Da e: 05/09/1980 Drill Finish Da 05/09/1980 PCW Rev Date Pipe Discharge 7.00 Depth Well: Casing Perforations: Te	Q64 Q16 Q4 Sec P 00618 1 2 4 22 e: 46 Driller Company: ABBOTT, MURRELL re: 05/01/1980 Drill Finish Date: Pipe Discharge Size 7.00 Depth Well: Top B 295	OD NumberQ64 Q16 Q4SecTwsP006181242223Se:46Driller Company:ABEABBOTT, MURRELLABBOTT, MURRELL	OD Number Q64 Q16 Q4 Sec Tws Rng P 00618 1 2 4 22 23S 34E e: 46 Driller Company: ABBOTT BI ABBOTT, MURRELL ABBOTT, MURRELL 05/05/1980 e: 05/09/1980 PCW Rcv Date: 05/05/1980 Pipe Discharge Size: 7.00 Depth Well: 428 feet Casing Perforations: Top Bottom Description	Q64 Q16 Q4 Sec Tws Rng X P 00618 1 2 4 22 23S 34E 645713 e: 46 Driller Company: ABBOTT BROTHERS ABBOTT, MURRELL ABBOTT, MURRELL ABBOTT, MURRELL e: 05/01/1980 Drill Finish Date: 05/05/1980 Phe 05/09/1980 PCW Rcv Date: So So Pipe Discharge Size: Es 7.00 Depth Well: 428 feet De De Casing Perforations: Top Bottom Description 295 428 Other/Unknown 295 428	Image: Additional content of the state in the state	

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, or suitability for any particular purpose of the data.

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POINT OF DIVERSION SUMMARY



APPENDIX B

Photographic Log





APPENDIX C

Laboratory Analytical Report

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🔅 eurofins

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2147-1

Laboratory Sample Delivery Group: 31403720.000 task 20.02 Client Project/Site: Broadcaster 29

For:

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

Attn: Kalei Jennings

RAMER

Authorized for release by: 4/8/2022 10:09:43 AM

Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com

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

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

LINKS **Review your project** results through Total Access **Have a Question?** Ask-The Expert

Visit us at: www.eurofinsus.com/Env Released to Imaging: 7/27/2022 10:14:02 AM

Laboratory Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

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Sample Summary	16
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2

Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
F2	MS/MSD RPD exceeds control limits	5
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		8
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	9
Glossary		10
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	10
DER	Duplicate Error Ratio (normalized absolute difference)	13
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	

Eurofins Carlsbad

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Negative / Absent Positive / Present

Presumptive

Quality Control

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

ND NEG

POS PQL

PRES

QC

RER

RPD TEF

TEQ

TNTC

RL

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

4

5

Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Job ID: 890-2147-1

Project/Site: Broadcaster 29

Client: WSP USA Inc.

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2147-1

Comments

No additional comments.

Receipt

The sample was received on 3/29/2022 1:27 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 was 8.0° C.

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-22613 and analytical batch 880-22684 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015B NM: Surrogate recovery for the following samples were outside control limits: (MB 880-22659/1-A), (890-2143-A-21-O MS) and (890-2143-A-21-P MSD). Evidence of matrix interferences is not obvious.

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

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.

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Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Lab Sample ID: 890-2147-1

Matrix: Solid

Client Sample ID: FS01 Date Collected: 03/29/22 09:25 Date Received: 03/29/22 13:27 Sample Depth: 0.5

Client: WSP USA Inc. Project/Site: Broadcaster 29

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		03/31/22 11:00	03/31/22 15:15	1
Toluene	<0.00198	U	0.00198	mg/Kg		03/31/22 11:00	03/31/22 15:15	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		03/31/22 11:00	03/31/22 15:15	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		03/31/22 11:00	03/31/22 15:15	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		03/31/22 11:00	03/31/22 15:15	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		03/31/22 11:00	03/31/22 15:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130			03/31/22 11:00	03/31/22 15:15	1
1,4-Difluorobenzene (Surr)	109		70 - 130			03/31/22 11:00	03/31/22 15:15	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			03/31/22 16:27	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	167		49.9	mg/Kg			03/31/22 08:59	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		03/30/22 14:43	03/31/22 01:13	1
Diesel Range Organics (Over C10-C28)	167		49.9	mg/Kg		03/30/22 14:43	03/31/22 01:13	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/30/22 14:43	03/31/22 01:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			03/30/22 14:43	03/31/22 01:13	1
o-Terphenyl	120		70 - 130			03/30/22 14:43	03/31/22 01:13	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22.3		4.97	mg/Kg			04/08/22 07:04	1

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Job ID: 890-2147-1

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		5
890-2145-A-27-F MS	Matrix Spike	105	111		
890-2145-A-27-G MSD	Matrix Spike Duplicate	104	109		6
890-2147-1	FS01	109	109		
LCS 880-22613/1-A	Lab Control Sample	102	112		
LCSD 880-22613/2-A	Lab Control Sample Dup	106	113		
MB 880-22613/5-A	Method Blank	104	103		8
Surrogate Legend					
BFB = 4-Bromofluorober					9

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid				Prep Type: Total/NA	
				Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
890-2143-A-21-O MS	Matrix Spike	148 S1+	139 S1+	·	
890-2143-A-21-P MSD	Matrix Spike Duplicate	145 S1+	135 S1+		
890-2147-1	FS01	120	120		
LCS 880-22659/2-A	Lab Control Sample	103	93		
LCSD 880-22659/3-A	Lab Control Sample Dup	111	101		
MB 880-22659/1-A	Method Blank	146 S1+	160 S1+		

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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SDG: 31403720.000 task 20.02

QC Sample Results

Project/Site: Broadcaster 29

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-22613/5-A

Matrix: Solid Analysis Batch: 22684

						Trop Bator	
MB	MB						
Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
< 0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
<0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
<0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
<0.00400	U	0.00400	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
<0.00200	U	0.00200	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
<0.00400	U	0.00400	mg/Kg		03/31/22 07:30	03/31/22 10:26	1
МВ	МВ						
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
104		70 - 130			03/31/22 07:30	03/31/22 10:26	1
103		70 - 130			03/31/22 07:30	03/31/22 10:26	1
	Result <0.00200	Result Qualifier <0.00200	Result Qualifier RL <0.00200	Result Qualifier RL Unit <0.00200	Result Qualifier RL Unit D <0.00200	Result Qualifier RL Unit D Prepared <0.00200	MB MB Result Qualifier RL Unit D Prepared Analyzed <0.00200

Lab Sample ID: LCS 880-22613/1-A Matrix: Solid

Analysis Batch: 22684

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1005		mg/Kg		101	70 _ 130	
Toluene	0.100	0.09948		mg/Kg		99	70 - 130	
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130	
m-Xylene & p-Xylene	0.200	0.2087		mg/Kg		104	70 - 130	
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	102		70 - 130
1,4-Difluorobenzene (Surr)	112		70 - 130

Lab Sample ID: LCSD 880-22613/2-A

Matrix: Solid

Analysis Batch: 22684							Prep	Batch:	22613
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09921		mg/Kg		99	70 - 130	1	35
Toluene	0.100	0.09749		mg/Kg		97	70 - 130	2	35
Ethylbenzene	0.100	0.1001		mg/Kg		100	70 - 130	0	35
m-Xylene & p-Xylene	0.200	0.2082		mg/Kg		104	70 - 130	0	35
o-Xylene	0.100	0.1013		mg/Kg		101	70 - 130	1	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	113		70 - 130

Lab Sample ID: 890-2145-A-27-F MS

Matrix: Solid Analysia Bataby 22694

Analysis Batch: 22684									Prep	Batch: 22613
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U F1 F2	0.0996	0.09005		mg/Kg		90	70 _ 130	
Toluene	0.00281	F1 F2	0.0996	0.08700		mg/Kg		85	70 _ 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 22613

Released to Imaging:	7/27/2022 10:14:02 AM

Client: WSP USA Inc.

Project/Site: Broadcaster 29

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Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

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

Lab Sample ID: 890-2145-A-27	7-F MS							Client	Sample ID: Ma	trix Sp	oike
Matrix: Solid									Prep Type	: Total	/N/
Analysis Batch: 22684									Prep Bat	ch: 22	61:
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit		D %Rec	Limits		
Ethylbenzene	<0.00201	U F1 F2	0.0996	0.08603		mg/Kg		85	70 _ 130		
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.199	0.1777		mg/Kg		88	70 - 130		
o-Xylene	0.00245	F1 F2	0.0996	0.08670		mg/Kg		85	70 - 130		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	105		70 - 130								
1,4-Difluorobenzene (Surr)	111		70 - 130								
Lab Sample ID: 890-2145-A-2	(-g msd					C	lien	t Sample ID	: Matrix Spike		
Matrix: Solid									Prep Type		
Analysis Batch: 22684		. .	• "						Prep Bat		
	•	Sample	Spike	MSD					%Rec		RP
Analyte		Qualifier	Added		Qualifier	Unit		D %Rec			Lim
Benzene	<0.00201		0.101	0.03291		mg/Kg		32	70 - 130	93	3
Toluene	0.00281		0.101	0.03429		mg/Kg		31	70 - 130	87	3
Ethylbenzene	<0.00201		0.101	0.03471		mg/Kg		33	70 - 130	85	
m-Xylene & p-Xylene	<0.00402		0.201	0.07523		mg/Kg		36	70 - 130	81	3
o-Xylene	0.00245	F1 F2	0.101	0.04224	F1 F2	mg/Kg		40	70 - 130	69	3
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	104		70 - 130								
1,4-Difluorobenzene (Surr)	109		70 - 130								
ethod: 8015B NM - Diese	el Range Or	rganics	(DRO) (GC)								
	Ji i tango ei	guinee	(2110) (00)								
Lab Sample ID: MB 880-22659	9/1-A							Client Sa	ample ID: Met		
Matrix: Solid									Prep Type		
Analysis Batch: 22606									Prep Bat	ch: 22	65
		MB MB									
Analyte		esult Qua	lifier	RL	Unit		D	Prepared	Analyzed		l Fa
Gasoline Range Organics	<	<50.0 U		50.0	mg/K	g		03/30/22 14:43	03/30/22 16:31		
(GRO)-C6-C10				50.0							
Diesel Range Organics (Over	<	<50.0 U		50.0	mg/K	g		03/30/22 14:43	03/30/22 16:31		
C10-C28) Oll Range Organics (Over C28-C36)		<50.0 U		50.0	mg/K	a		03/30/22 14:43	03/30/22 16:31		
				50.0	my/N	9		00/00/22 14.40	00/00/22 10.01		
Surrogate		MB MB overy Qua	lifier Limi					Prepared	Analyzed	_	l Fa

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	146	S1+	70 - 130
o-Terphenyl	160	S1+	70 - 130

Lab Sample ID: LCS 880-22659/2-A Matrix: Solid

Analysis Batch: 22606 Prep Batch: 22659 Spike LCS LCS %Rec Analyte Added Result Qualifier Unit D %Rec Limits Gasoline Range Organics 1000 926.1 93 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 891.8 mg/Kg 89 70 - 130 C10-C28)

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Prep Type: Total/NA

03/30/22 14:43

03/30/22 14:43

03/30/22 16:31

03/30/22 16:31

Client Sample ID: Lab Control Sample

1

1

QC Sample Results

Client: WSP USA Inc. Project/Site: Broadcaster 29

Method: 8015B NN

Lab Sample ID: LCS 880-2265	9/2-A						Client	Sample	D: Lab Co	ontrol Sa	ample	
Matrix: Solid								•		ype: To		
Analysis Batch: 22606										Batch:		
	LCS	LCS										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	103		70 - 130									
o-Terphenyl	93		70 - 130									ľ
<u> </u>											_	
Lab Sample ID: LCSD 880-226	59/3-A					Clier	nt Sam	ple ID: I	Lab Contro			
Matrix: Solid										ype: To		
Analysis Batch: 22606			0	1.000						Batch:		
A L .4.			Spike		LCSD	1			%Rec		RPD	
Analyte Gasoline Range Organics			Added	929.5	Qualifier	Unit	D	93	Limits 70 - 130	0	Limit 20	
(GRO)-C6-C10			1000	929.0		mg/Kg		90	10 - 150	U	20	
Diesel Range Organics (Over			1000	936.7		mg/Kg		94	70 - 130	5	20	
C10-C28)												
	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	111		70 - 130									
o-Terphenyl	101		70 - 130									
-												
Lab Sample ID: 890-2143-A-21	I-O MS							Client	Sample ID:		-	
Matrix: Solid										ype: To		
Analysis Batch: 22606										Batch:	22659	
	Sample	•	Spike		MS		_	~-	%Rec			
Analyte		Qualifier	Added		Qualifier	Unit	D	%Rec	Limits			
Gasoline Range Organics	<50.0	U	998	1025		mg/Kg		103	70 - 130			
(GRO)-C6-C10 Diesel Range Organics (Over	<50.0	11	998	934.7		mg/Kg		94	70 - 130			
Diesel Kange Organics (Over	-00.0	0	330	30 - 1.7		myrry			10 - 100			
C10-C28)												

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	148	S1+	70 - 130
o-Terphenyl	139	S1+	70 _ 130

Lab Sample ID: 890-2143-A-21-P MSD Matrix: Solid

Analysis Batch: 22606

Analysis Batch: 22606									Prep	Batch:	22659
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	995	1017		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<50.0	U	995	911.3		mg/Kg		92	70 _ 130	3	20
	MSD	MSD									

	14/30	M3D M3D	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	145	S1+	70 - 130
o-Terphenyl	135	S1+	70 - 130

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

Job ID: 890-2147-1

SDG: 31403720.000 task 20.02

Client: WSP USA Inc.

QC Sample Results

Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Project/Site: Broadcaster 29 Method: 300.0 - Anions, Ion Chromatography

										Client S	Sample ID:	Method	Blank
Matrix: Solid												Type: S	
Analysis Batch: 23131													
-		МВ МВ											
Analyte	Re	sult Qua	lifier	RL		Un	it	D	Pr	epared	Analy	zed	Dil Fac
Chloride	<	5.00 U		5.00		mg	g/Kg				04/08/22	04:33	1
Lab Sample ID: LCS 880-22997/2-A								Cli	ent	Sample	D: Lab C	ontrol S	ample
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 23131													
			Spike		LCS	LCS					%Rec		
Analyte			Added		Result	Qualifie	r Unit		D	%Rec	Limits		
Chloride			250		250.2		mg/Kg			100	90 - 110		
 Lab Sample ID: LCSD 880-22997/3-/	4						CI	ient S	am	ple ID:	Lab Contro	ol Sampl	le Dup
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 23131													
			Spike		LCSD	LCSD					%Rec		RPD
Analyte			Added		Result	Qualifie	r Unit		D	%Rec	Limits	RPD	Limit
Chloride			250		244.6		mg/Kg			98	90 - 110	2	20
Lab Sample ID: 890-2142-A-22-F MS	•									Client	Sample ID	D: Matrix	Spike
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 23131													
	Sample	Sample	Spike		MS	MS					%Rec		
Analyte	Result	Qualifier	Added		Result	Qualifie	r Unit		D	%Rec	Limits		
Chloride	284		249		515.7		mg/Kg			93	90 - 110		
- Lab Sample ID: 890-2142-A-22-G MS	SD							Client	t Sa	mple IE): Matrix S	pike Du	plicate
Matrix: Solid											Prep	Type: S	oluble
Analysis Batch: 23131													
	Sample	Sample	Spike		MSD	MSD					%Rec		RPD
Analyte	Result	Qualifier	Added		Result	Qualifie	r Unit		D	%Rec	Limits	RPD	Limit
Chloride	284		249		518.1	-	mg/Kg			94	90 - 110	0	20

Client Sample ID

Lab Control Sample

Lab Control Sample Dup

Matrix Spike Duplicate

Client Sample ID

Lab Control Sample

Lab Control Sample Dup

Matrix Spike Duplicate

Client Sample ID

FS01

Method Blank

Matrix Spike

FS01

Method Blank

Matrix Spike

FS01

QC Association Summary

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Total/NA

Prep Type

Total/NA

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Matrix

Solid

Solid

Solid

Solid

Solid

Solid

Matrix

Solid

Client: WSP USA Inc. Project/Site: Broadcaster 29

GC VOA

890-2147-1

Prep Batch: 22613 Lab Sample ID

MB 880-22613/5-A

LCS 880-22613/1-A

LCSD 880-22613/2-A

890-2145-A-27-F MS

Lab Sample ID

MB 880-22613/5-A

LCS 880-22613/1-A

LCSD 880-22613/2-A

890-2145-A-27-F MS

890-2145-A-27-G MSD

Analysis Batch: 22749

890-2147-1

890-2145-A-27-G MSD

Analysis Batch: 22684

Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Method

5035

5035

5035

5035

5035

5035

Method

8021B

8021B

8021B

8021B

8021B

8021B

Method

Total BTEX

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Prep Batch

Prep Batch

22613

22613

22613

22613

22613

22613

Prep Batch

GC Semi VOA

Lab Sample ID

890-2147-1

Analysis Batch: 22606

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2147-1	FS01	Total/NA	Solid	8015B NM	22659
MB 880-22659/1-A	Method Blank	Total/NA	Solid	8015B NM	22659
LCS 880-22659/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22659
LCSD 880-22659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22659
890-2143-A-21-O MS	Matrix Spike	Total/NA	Solid	8015B NM	22659
890-2143-A-21-P MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	22659

Prep Batch: 22659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2147-1	FS01	Total/NA	Solid	8015NM Prep	
MB 880-22659/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22659/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22659/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2143-A-21-O MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2143-A-21-P MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	
Analysis Batch: 22696					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2147-1	FS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 22997

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
890-2147-1	FS01	Soluble	Solid	DI Leach	
MB 880-22997/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-22997/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22997/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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Released to Imaging	»: 7/27/2022	10:14:02 AM	

Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

8 9 10 11 12 13

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De	Matrix	Method	Prep Batch
	Solid	DI Leach	
	Solid	DI Leach	
be	Matrix	Method	Prep Batch
	Solid	300.0	22997
	Solid	300.0	22997

-	roject/Site: Broadcaste	r 29	
Η	IPLC/IC (Continue	d)	
L	each Batch: 22997 (Co	ontinued)	
	Lab Sample ID	Client Sample ID	Ргер Туре
	890-2142-A-22-F MS	Matrix Spike	Soluble
	890-2142-A-22-G MSD	Matrix Spike Duplicate	Soluble

Analysis Batch: 23131

Client: WSP USA Inc.

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2147-1	FS01	Soluble	Solid	300.0	22997
MB 880-22997/1-A	Method Blank	Soluble	Solid	300.0	22997
LCS 880-22997/2-A	Lab Control Sample	Soluble	Solid	300.0	22997
LCSD 880-22997/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	22997
890-2142-A-22-F MS	Matrix Spike	Soluble	Solid	300.0	22997
890-2142-A-22-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	22997

Client Sample ID: FS01 Date Collected: 03/29/22 09:25

Date Received: 03/29/22 13:27

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	22613	03/31/22 11:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22684	03/31/22 15:15	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22749	03/31/22 16:27	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22696	03/31/22 08:59	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22659	03/30/22 14:43	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/31/22 01:13	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	22997	04/05/22 09:20	СН	XEN MID
Soluble	Analysis	300.0		1			23131	04/08/22 07:04	СН	XEN MID

Laboratory References:

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

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Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Lab Sample ID: 890-2147-1 Matrix: Solid

		Accreditation/C	ertification Summary		
Client: WSP USA Inc. Project/Site: Broadcaste	er 29			Job ID: 890-2147-1 SDG: 31403720.000 task 20.02	2
Laboratory: Eurofir					
Unless otherwise noted, all an		Program	Identification Number	Expiration Date	
Texas		NELAP	T104704400-21-22	06-30-22	
The following applytes a	re included in this report	but the laboratory is not cortif	ied by the governing authority. This list ma	winclude analytes for which	5
the agency does not offe			ied by the governing autionty. This list ma		6
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		
					8
					9
					10
					4.4
					13
					14

Eurofins Carlsbad

Method Summary

Client: WSP USA Inc. Project/Site: Broadcaster 29 Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Method	Method Description	Protocol	Laboratory
3021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
3015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
3015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
3015NM Prep	Microextraction	SW846	XEN MID
OI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

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

Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 7/27/2022 10:14:02 AM

Sample Summary

Client: WSP USA Inc. Project/Site: Broadcaster 29 Job ID: 890-2147-1 SDG: 31403720.000 task 20.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth																	
890-2147-1	FS01	Solid	03/29/22 09:25	03/29/22 13:27	0.5	4																
						5																
						8																
						9																
						12																
						13																
ADCANNA .	Relinquished by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be lable 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			FS01 S	Sample Identification	: Yes	Seals: Yes No	Yes	20	SAMPLE RECEIPT Temp	Sampler's Name: Payton Benner	P.O. Number:	er:	Project Name: Broadcaster 29		te ZIP:			Project Manager: Kalei Jennings	XENCO
-------------	--	--	--	--	--	-----------	-------------------------------------	----------------------------	------------------------------------	-----	------	-----------------------------	-------------------------------	--------------	---------------------------------	------------------------------	------------------------	-----------------------------	--	------------------	---------------------------------	--
Close Os Jo	 Received by: (Signature) 	hment of samples constitutes a valid purc of samples and shall not assume any resp plied to each project and a charge of S5 f	幋			03/29/22	Matrix Date Time Sampled Sampled	F	UA Correctic		Ther	Temp Blank: Yes No Wet Ice:	CLP-Cooling In Due Date:		31403720.000 task 20.02 Routine	Τu	Email:	9705	3300 North A Street Building 1, unit 222			Houston,1 Midland, Hobbs,NM (575-392-7
0	(e)	hase order from client c onsibility for any losses or each sample submitte	ACRA 13PPM Texas 11 AI			0.5 1	Depth Numbe	er of	-0, 2 Cor			(Yed No)ate:			Turn Around	Kalei.jennings@wsp.com	City, State ZIP:	Address:	Company Name:	Bill to: (if different)	X (281) 240-4200 Da TX (432-704-5440) E '550) Phoenix,AZ (48)
1302	Date/Time Re	company to Xenco, its affiliates ai s or expenses incurred by the clie sd to Xenco, but not analyzed. The	Sb As Ba Be Sb As Ba Be			 ×	TPH (El BTEX (l	EPA C)=80	-							vsp.com	Midland, Texas 79705	3300 North A Street Building 1, unit 222	WSP USA	Kalei Jennings	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)
	Relinquished by: (Signature)	nd subcontractors. It assigns str ant if such losses are due to circt ese terms will be enforced unles	B Cd Ca Cr Co Cu Fe Pb N Cd Cr Co Cu Pb Mn Mo Ni													ANALYSIS REQUEST			ng 1, unit 222			ntonio, i X (210) 509-3334 5bock,TX (806)794-1296 449-8800) Tampa,FL (813-62(
	e) Received b	andard terms and conditions umstances beyond the control ss previously negotiated.	Cu Fe Pb Mg Mn Mo Ni K Se A Mn Mo Ni Se Ag Ti U													ST	Deliverables: EDD	Reporting:Level II evel III	State of Project:	Program: UST/PST		
	Received by: (Signature)		Ag SiO2 Na Sr Ti Sn U V Zn 1631/245.1/7470 /7471			0	Samp	lab, if re	TAT starts th							Work				P prownfields PC	Work Order Comments	www.xenco.com ^{>} age
	Date/Time		Sn U V Zn 1 / 7470 / 7471 : Hg			COMPOSITE	Sample Comments	lab, if received by 4:30pm	TAT starts the day recevied by the							Work Order Notes	Other:			1 perfund		

Page 37 of 104

		Definerished by	and the full 3 29 30	Empty Kit Relinquished by	Denverable Requested 1 II III, IV Other (specify)	Unconfirmedia uncertarication Deliconfilmedia del 11 11 11 01 Obtent fonnation	Note: Since laboratory accretitations are subject to change Eurorins Environment Testing South Central LLC places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC attention immediately.						FS01 (890-2147-1)		Sample Identification - Client ID (Lab ID)	Sie	Project Name Broadcaster 29	Email	Phone: 432-704-5440(Tel)	State, Zip [.] TX, 79701	City: Midland	1211 W Florida Ave,	Eurofins Environment Testing South Centr	Shipping/Receiving	Client Information (Sub Contract Lab)	1089 N Canal St. Carlsbad, NM 88220 Phone: 575-988-3199 Fax: 575-988-3199	Eurofins Carlsbad
	Date/ I ime	Date/ Ime:	Date/ Ime:		Primary Deliverable Rank		t Testing South Ce ove for analysis/te ntral LLC attention						3/29/22	X	Sample Date	SSOW#:	Project #: 89000048	WO #	PO#		TAT Requested (days)	Due Date Requested 4/4/2022		Phone:	Sampler [.]		
				Date			ntral LLC places sts/matrix being a immediately If						09 25 Mountain	X	e Sample Time						(days) [.]	sted				Chain	
					N		the ownership analyzed the sa all requested ac								Sample Type (C=comp, G=grab)											Chain of Custody Record	
	Company	Company	Company	L			of method, analy mples must be s creditations are						Solid	tion Code:	Matrix (W=water S=solid, O=wastefoil, BT=Tissue, A=Air)									E-Mail jessic	Lab PM Krame	tody R	
Coc	Rec	Rec	Receiv	Time,	Specia	Sampi	te & accredi hipped back current to da						×	X	Field Filtered Perform MS/I 8015MOD_NM/	ISD (Y	es or	No)					Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas	E-Mail jessica kramer@eurofinset.com	Lab PM Kramer, Jessica	ecord	
Cooler Temperature(s)	Received by	Received by	eived	Þ	Special Instructions/QC Requirements	Return To Client	tation con ; to the Eu tte, return					 	 ×		300_ORGFM_2			Chlori	de				s Require	geurofi	, w		
erature(s			R	₽	tions/Q	o Clier	npliance irofins Er the signe						 ××		8021B/5035FP_ Total_BTEX_G							A	a, NEL	nset.co			
			K	Þ	C Req	it it	upon out Ivironme ed Chain			 			×		8015MOD_Calc							Analysis Requested	ote): AP - Te	З			
°C and Other Remarks.					Jireme		subcont nt Testin of Custc	-		 		 	 					1				s Rec	ixas				
emarks.						assessed if san Disposal By Lab	ract labc g South ody attes			 		 	 									luest		State of New N	Carrier		
				Aethod o		ed if s al By L	ratories. Central ting to s					 									_	ed		State of Origin: New Mexico	Carrier Tracking No(s):		
	Date/Time:	Date/Time	Date/Time:	Method of Shipment:		ample. ab	This sa LLC lab aid comp					 													No(s):		
	lime:	Time	Time:	ont		s are r	Imple sh oratory c slicance					 	 														
						etaine Archi	pment is r other in o Eurofi							X	Total Number								<u> </u>	T P	<u> </u>	10 ²	
						tee may be assessed if samples are retained longer than t	s forwarded under on structions will be province in the province of the provin								Special In	Other [.]	L EDA	I Ice J - DI Water	F MECH G Amchlor H - Ascorbic Acid	D Nitric Acid E NaHSO4	A - HCL B NaOH C 7n Acetata	Preservation Codes	Job # [.] 890-2147-1	Page: Page 1 of 1	COC No: 890-691 1	🔅 eurofins	
Ver	Company	Company	Company			than 1 month) Mon	chain-of-c vrovided sting Sou							1	structi		W - pH 4-5 Z other (sp	U - Acetone V - MCAA	TST	P Na2O4S Q - Na2SO3	N N N	des					
Ver 06/08/2021	any	any	any			nth) Months	ustody If the Any changes to th Central, LLC.								Special Instructions/Note:		- pH 4-5 other (specify)	etone AA	Na2S203 H2SO4 TSP Dodecativitrate	ASNAUZ Na2O4S - Na2SO3	ne NaCo					Environment Testing America	

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Job Number: 890-2147-1

List Source: Eurofins Carlsbad

SDG Number: 31403720.000 task 20.02

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 2147 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	
_		

N/A

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Job Number: 890-2147-1

List Source: Eurofins Midland

List Creation: 03/30/22 11:54 AM

SDG Number: 31403720.000 task 20.02

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 2147 List Number: 2 Creator: Teel, Brianna

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Received by OCD: 7/25/2022 12:52:28 PM

🔅 eurofins

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2148-1

Laboratory Sample Delivery Group: 31403720.0000 task20.02 Client Project/Site: Broadcaster 29

For:

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

Attn: Kalei Jennings

RAMER

Authorized for release by: 4/8/2022 10:09:58 AM

Jessica Kramer, Project Manager (432)704-5440 Jessica.Kramer@et.eurofinsus.com

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

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

LINKS **Review your project** results through Total Access Have a Question? Ask-The Expert

Visit us at: <u>www.eurofinsus.com/Env</u> Released to Imaging: 7/27/2022 10:14:02 AM

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Laboratory Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

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Sample Summary	18
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Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Project/Site. Di		
Qualifiers		3
GC VOA		
Qualifier	Qualifier Description	4
F1	MS and/or MSD recovery exceeds control limits.	
S1+	Surrogate recovery exceeds control limits, high biased.	5
U	Indicates the analyte was analyzed for but not detected.	
GC Semi VOA		6
Qualifier	Qualifier Description	
S1+	Surrogate recovery exceeds control limits, high biased.	7
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		8
Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	9
Glossary		4.0
Abbreviation	These commonly used abbreviations may or may not be present in this report.	10
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	44
%R	Percent Recovery	
CFL	Contains Free Liquid	10
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	4.9
DER	Duplicate Error Ratio (normalized absolute difference)	13
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	14
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)	

Negative / Absent

Positive / Present

Presumptive

Quality Control

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

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

NEG

POS

PQL

PRES QC

RER

RPD TEF

TEQ

TNTC

RL

4

5

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Job ID: 890-2148-1

Project/Site: Broadcaster 29

Client: WSP USA Inc.

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2148-1

Receipt

The samples were received on 3/29/2022 1:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 8.0°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Lab Sample ID: 890-2148-1

Matrix: Solid

5

Client Sample ID: SS05 Date Collected: 03/29/22 09:40 Date Received: 03/29/22 13:27

Project/Site: Broadcaster 29

Client: WSP USA Inc.

Method: 8021B - Volatile Organic	Compounds (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00202	U	0.00202	mg/Kg		03/31/22 12:00	03/31/22 22:32	
Toluene	<0.00202	U	0.00202	mg/Kg		03/31/22 12:00	03/31/22 22:32	
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		03/31/22 12:00	03/31/22 22:32	
n-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		03/31/22 12:00	03/31/22 22:32	
o-Xylene	<0.00202	U	0.00202	mg/Kg		03/31/22 12:00	03/31/22 22:32	
Kylenes, Total	<0.00403	U	0.00403	mg/Kg		03/31/22 12:00	03/31/22 22:32	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
-Bromofluorobenzene (Surr)	141	S1+	70 - 130			03/31/22 12:00	03/31/22 22:32	
,4-Difluorobenzene (Surr)	102		70 - 130			03/31/22 12:00	03/31/22 22:32	
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00403	U	0.00403	mg/Kg			04/01/22 15:18	
Method: 8015 NM - Diesel Range	Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.8	U	49.8	mg/Kg			03/31/22 08:59	
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 15:05	
GRO)-C6-C10								
Diesel Range Organics (Over	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 15:05	
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		03/30/22 10:05	03/30/22 15:05	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
I-Chlorooctane	122		70 - 130			03/30/22 10:05	03/30/22 15:05	
p-Terphenyl	120		70 - 130			03/30/22 10:05	03/30/22 15:05	
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	<5.00	U	5.00	mg/Kg			04/08/22 07:10	
lient Sample ID: SS06						Lab Sar	nple ID: 890-	2148-:
ate Collected: 03/29/22 09:42								x: Soli
ate Received: 03/29/22 13:27								
ample Depth: 0.5								
Method: 8021B - Volatile Organic	: Compounds (GC)						
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00201		0.00201	mg/Kg		03/31/22 12:00	03/31/22 22:53	
Foluene	0.00242		0.00201	mg/Kg		03/31/22 12:00	03/31/22 22:53	
Ethylbenzene	< 0.00201	U	0.00201	mg/Kg		03/31/22 12:00	03/31/22 22:53	
n-Xylene & p-Xylene	< 0.00402		0.00402	mg/Kg		03/31/22 12:00	03/31/22 22:53	
	0.00102	-	0.00102				20.0 EL EL.00	

03/31/22 12:00 03/31/22 22:53 o-Xylene <0.00201 U 0.00201 mg/Kg 1 Xylenes, Total <0.00402 U 0.00402 mg/Kg 03/31/22 12:00 03/31/22 22:53 1 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 03/31/22 22:53 4-Bromofluorobenzene (Surr) 149 S1+ 70 - 130 03/31/22 12:00 1

5

Client Sample Results

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Lab Sample ID: 890-2148-2 Matrix: Solid

Date Collected: 03/29/22 09:42 Date Received: 03/29/22 13:27

Client Sample ID: SS06

Sample Depth: 0.5

Client: WSP USA Inc. Project/Site: Broadcaster 29

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	97		70 - 130			03/31/22 12:00	03/31/22 22:53	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			04/01/22 15:18	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	14.5		49.9	mg/Kg			03/31/22 08:59	1
Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		03/30/22 10:05	03/30/22 15:27	1
(GRO)-C6-C10								
Diesel Range Organics (Over	14.5		49.9	mg/Kg		03/30/22 10:05	03/30/22 15:27	1
C10-C28)	- 10.0		10.0			00/00/00 40:05	00/00/00 45:07	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		03/30/22 10:05	03/30/22 15:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130			03/30/22 10:05	03/30/22 15:27	1
o-Terphenyl	117		70 - 130			03/30/22 10:05	03/30/22 15:27	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59.3		5.00	mg/Kg			04/08/22 08:20	1
lient Sample ID: SS07						Lab San	nple ID: 890-	2148-3
ate Collected: 03/29/22 09:44							Matri	x: Solid
ate Received: 03/29/22 13:27								
ample Depth: 0.5								

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00204	U	0.00204	mg/Kg		03/31/22 12:00	03/31/22 23:13	1
Toluene	<0.00204	U	0.00204	mg/Kg		03/31/22 12:00	03/31/22 23:13	1
Ethylbenzene	<0.00204	U	0.00204	mg/Kg		03/31/22 12:00	03/31/22 23:13	1
m-Xylene & p-Xylene	<0.00408	U	0.00408	mg/Kg		03/31/22 12:00	03/31/22 23:13	1
o-Xylene	<0.00204	U	0.00204	mg/Kg		03/31/22 12:00	03/31/22 23:13	1
Xylenes, Total	<0.00408	U	0.00408	mg/Kg		03/31/22 12:00	03/31/22 23:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130			03/31/22 12:00	03/31/22 23:13	1
1,4-Difluorobenzene (Surr)	100		70 - 130			03/31/22 12:00	03/31/22 23:13	1
Method: Total BTEX - Total B	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00408	U	0.00408	mg/Kg			04/01/22 15:18	1
Method: 8015 NM - Diesel Rar	ige Organics (DR	0) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
,								

Client Sample Results

		Clien						
Client: WSP USA Inc.							Job ID: 890	-2148-1
Project/Site: Broadcaster 29						SDG: 31	403720.0000 tas	sk20.02
Client Sample ID: SS07						Lab Sar	nple ID: 890-2	2148-3
Date Collected: 03/29/22 09:44							Matri	x: Solio
Date Received: 03/29/22 13:27								
Sample Depth: 0.5								
Method: 8015B NM - Diesel Rang Analyte			RL	Unit	D	Prepared	Analvzed	Dil Fa
Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10		Qualifier	RL	Unit mg/Kg	D	Prepared 03/30/22 10:05	Analyzed 03/30/22 15:48	Dil Fa
Analyte Gasoline Range Organics	Result	Qualifier U	· ·		<u> </u>	· · · · · · · · · · · · · · · · · · ·		
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0	Qualifier U U	50.0	mg/Kg	<u> </u>	03/30/22 10:05	03/30/22 15:48	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0 <50.0	Qualifier U U U	50.0	mg/Kg mg/Kg	<u> </u>	03/30/22 10:05 03/30/22 10:05	03/30/22 15:48	
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0 <50.0 <50.0	Qualifier U U U	50.0 50.0 50.0	mg/Kg mg/Kg	<u> </u>	03/30/22 10:05 03/30/22 10:05 03/30/22 10:05	03/30/22 15:48 03/30/22 15:48 03/30/22 15:48	Dil Fac

ſ	Method: 300.0 - Anions, Ion Chron	natography -	Soluble						
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	6.94		5.00	mg/Kg			04/08/22 08:26	1

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Prep Type: Total/NA

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Client: WSP USA Inc.

Project/Site: Broadcaster 29

_				Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
880-12957-A-1-L MSD	Matrix Spike Duplicate	100	108		
880-12957-A-1-N MS	Matrix Spike	103	111		6
890-2148-1	SS05	141 S1+	102		
890-2148-2	SS06	149 S1+	97		
890-2148-3	SS07	118	100		
LCS 880-22658/1-A	Lab Control Sample	97	105		8
LCSD 880-22658/2-A	Lab Control Sample Dup	97	107		
MB 880-22658/5-A	Method Blank	118	100		
Surrogate Legend					

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-13046-A-1-D MS	Matrix Spike	130	122
880-13046-A-1-E MSD	Matrix Spike Duplicate	119	112
890-2148-1	SS05	122	120
890-2148-2	SS06	120	117
890-2148-3	SS07	112	111
LCS 880-22621/2-A	Lab Control Sample	99	90
LCSD 880-22621/3-A	Lab Control Sample Dup	107	96
MB 880-22621/1-A	Method Blank	144 S1+	155 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Project/Site: Broadcaster 29

Client: WSP USA Inc.

Lab Sample ID: MB 880-22658/5-A									Client Sa	mple ID: Metho	d Blank
Matrix: Solid										Prep Type:	Total/NA
Analysis Batch: 22719										Prep Batc	h: 22658
	ME	B MB									
Analyte	Resul	t Qualifier	RL		Unit		D	Pi	repared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/K	g		03/3	1/22 12:00	03/31/22 15:35	1
Toluene	<0.00200) U	0.00200		mg/K	g		03/3	1/22 12:00	03/31/22 15:35	1
Ethylbenzene	<0.00200) U	0.00200		mg/K	g		03/3	1/22 12:00	03/31/22 15:35	1
m-Xylene & p-Xylene	<0.00400) U	0.00400		mg/K	g		03/3	1/22 12:00	03/31/22 15:35	1
o-Xylene	<0.00200) U	0.00200		mg/K	g		03/3	1/22 12:00	03/31/22 15:35	1
Xylenes, Total	<0.00400) U	0.00400		mg/K	g		03/3	1/22 12:00	03/31/22 15:35	1
	МЕ	B MB									
Surrogate	%Recovery	/ Qualifier	Limits					Pi	repared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118	3	70 - 130				-	03/3	1/22 12:00	03/31/22 15:35	1
1,4-Difluorobenzene (Surr)	100	ר	70 - 130					02/2	1/22 12:00	03/31/22 15:35	1
Lab Sample ID: LCS 880-22658/1-A	700	,	10 - 130				СІ			D: Lab Control	Sample
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid		,	10 - 130				CI				Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid		,	Spike	LCS	LCS		CI			D: Lab Control Prep Type: `	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719		, 			LCS Qualifier	Unit	CI			D: Lab Control Prep Type: ` Prep Batc	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte			Spike			Unit mg/Kg	CI	lient	Sample I	D: Lab Control Prep Type: Prep Batcl %Rec	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene		, 	Spike Added	Result			CI	lient	Sample I	D: Lab Control Prep Type: Prep Batc %Rec Limits	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene			Spike Added 0.100	Result 0.1059		mg/Kg	CI	lient	Sample I %Rec 106	ID: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene Ethylbenzene			Spike Added 0.100 0.100	Result 0.1059 0.08868		mg/Kg mg/Kg	CI	lient	Sample I %Rec 106 89	D: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130 70 - 130	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene Ethylbenzene		· 	Spike Added 0.100 0.100 0.100	Result 0.1059 0.08868 0.09566		mg/Kg mg/Kg mg/Kg	CI	lient	Sample I %Rec 106 89 96	D: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130 70 - 130 70 - 130	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene	LCS LC		Spike Added 0.100 0.100 0.100 0.100 0.200	Result 0.1059 0.08868 0.09566 0.2009		mg/Kg mg/Kg mg/Kg mg/Kg	CI	lient	Sample I %Rec 106 89 96 100	D: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate	LCS LC ecovery Qu		Spike Added 0.100 0.100 0.100 0.100 0.200	Result 0.1059 0.08868 0.09566 0.2009		mg/Kg mg/Kg mg/Kg mg/Kg	CI	lient	Sample I %Rec 106 89 96 100	D: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate %R 4-Bromofluorobenzene (Surr)	LCS LC	 S	Spike Added 0.100 0.100 0.100 0.200 0.100	Result 0.1059 0.08868 0.09566 0.2009		mg/Kg mg/Kg mg/Kg mg/Kg	CI	lient	Sample I %Rec 106 89 96 100	D: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene	LCS LC ecovery Qu	 S	Spike Added 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 Limits	Result 0.1059 0.08868 0.09566 0.2009		mg/Kg mg/Kg mg/Kg mg/Kg	CI	lient	Sample I %Rec 106 89 96 100	D: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	Sample Total/NA
Lab Sample ID: LCS 880-22658/1-A Matrix: Solid Analysis Batch: 22719 Analyte Benzene Toluene Ethylbenzene m-Xylene & p-Xylene o-Xylene Surrogate %R 4-Bromofluorobenzene (Surr)	LCS LC ecovery Qu 97 105	 S	Spike Added 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100 0.100	Result 0.1059 0.08868 0.09566 0.2009		mg/Kg mg/Kg mg/Kg mg/Kg		<u>D</u>	Sample I %Rec 106 89 96 100 99	D: Lab Control Prep Type: Prep Batc %Rec Limits 70 - 130 70 - 130 70 - 130 70 - 130	Sample Total/NA h: 22658

Matrix: Solid alusia Datahu 22740

Analysis Batch: 22719								Batch:	22658
	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.1028		mg/Kg		103	70 - 130	3	35
Toluene	0.100	0.08247		mg/Kg		82	70 - 130	7	35
Ethylbenzene	0.100	0.08947		mg/Kg		89	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1885		mg/Kg		94	70 - 130	6	35
o-Xylene	0.100	0.09437		mg/Kg		94	70 - 130	5	35

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

Lab Sample ID: 880-12957-A-1-L MSD Matrix: Solid

Analysis Batch: 22719									Prep	Batch:	22658
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00202	U	0.0996	0.08510		mg/Kg		85	70 - 130	4	35
Toluene	<0.00202	U F1	0.0996	0.06941	F1	mg/Kg		69	70 _ 130	5	35

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Prep Type: Total/NA

Client Sample ID: Matrix Spike Duplicate

Client: WSP USA Inc.

Project/Site: Broadcaster 29

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Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

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

	-1-L MSD							Cile	nt San		: Matrix Spi		
Matrix: Solid											Prep Ty	-	
Analysis Batch: 22719											Prep I	Batch:	
	Sample	Sam	ple	Spike	MSD	MSD					%Rec		RPI
Analyte	Result	Qual	ifier	Added	Result	Qualifier	Unit		D	%Rec	Limits	RPD	Limi
Ethylbenzene	<0.00202	U		0.0996	0.07530		mg/Kg			76	70 - 130	3	3
m-Xylene & p-Xylene	<0.00404	U		0.199	0.1580		mg/Kg			79	70 - 130	3	3
o-Xylene	<0.00202	U		0.0996	0.07836		mg/Kg			79	70 - 130	4	3
	MSD	MSD	1										
Surrogate	%Recovery	Qua	lifier	Limits									
4-Bromofluorobenzene (Surr)	100			70 - 130									
1,4-Difluorobenzene (Surr)	108			70 - 130									
Lab Sample ID: 880-12957-A	-1-N MS									Client	Sample ID:	Matrix	Spik
Matrix: Solid											Prep Ty	pe: To	tal/N/
Analysis Batch: 22719											Prep I		
-	Sample	Sam	ple	Spike	MS	MS					%Rec		
Analyte	Result	Qual	ifier	Added	Result	Qualifier	Unit		D	%Rec	Limits		
Benzene	<0.00202	U		0.0992	0.08872		mg/Kg			89	70 - 130		
Toluene	< 0.00202			0.0992	0.07307		mg/Kg			73	70 - 130		
Ethylbenzene	< 0.00202			0.0992	0.07727		mg/Kg			78	70 ₋ 130		
n-Xylene & p-Xylene	< 0.00202			0.198	0.1629					82	70 - 130 70 - 130		
				0.0992			mg/Kg			82			
o-Xylene	<0.00202			0.0992	0.08143		mg/Kg			02	70 - 130		
Surrogate	MS %Recovery	MS Ou a	lifior	Limits									
4-Bromofluorobenzene (Surr)	- <u></u>	Qua		70 - 130									
				10 - 150									
1,4-Difluorobenzene (Surr)	111			70 - 130									
		rgar	nics (DR										
1,4-Difluorobenzene (Surr) lethod: 8015B NM - Dies Lab Sample ID: MB 880-2262	el Range O	rgar	iics (DR						С	lient Sa	ample ID: M		
ethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid	el Range O	rgar	iics (DR						С	lient Sa	Prep Ty	pe: To	tal/N/
lethod: 8015B NM - Dies	el Range O	rgar	nics (DR						c	lient Sa	Prep Ty		tal/NA
ethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid	el Range O	rgan							С	lient Sa	Prep Ty	pe: To	tal/NA
lethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid	sel Range O 21/1-A	мв				Unit		D		lient Sa	Prep Ty	pe: To Batch:	tal/NA
ethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid Analysis Batch: 22606 Analyte Basoline Range Organics	el Range Or 21/1-A R	мв	MB Qualifier	2O) (GC)		<u>Unit</u> mg/k		<u>D</u>	Pre		Prep Ty Prep B	pe: To Batch:	tal/N/ 2262 Dil Fa
lethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid Analysis Batch: 22606 Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	el Range O 21/1-A R	MB esult	MB Qualifier U	20) (GC) 	0		-	D	Pre	pared	Prep Ty Prep I Analyze	be: To Batch: d 0:35	tal/N/ 2262 ⁻
ethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid Analysis Batch: 22606 Analyte Basoline Range Organics GRO)-C6-C10	el Range O 21/1-A R	MB esult <50.0	MB Qualifier U	2 O) (GC) 	0	mg/k	(g	<u>D</u>	Pre 03/30/2 03/30/2	pared 22 10:05	Prep Ty Prep I Analyze	pe: To Batch: d 0:35 0:35	2262 Dil Fa
ethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid Analysis Batch: 22606 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range O 21/1-A R	MB esult <50.0 <50.0	MB Qualifier U	2 O) (GC) 	0	mg/k	(g	D	Pre 03/30/2 03/30/2	pared 22 10:05 22 10:05	Analyze 03/30/22 10	pe: To Batch: d 0:35 0:35	tal/N/ 2262 Dil Fa
ethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid Analysis Batch: 22606 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	el Range Or 21/1-A R	MB esult <50.0 <50.0 <50.0 <i>MB</i>	MB Qualifier U U	2 O) (GC) 	0	mg/k	(g	<u>D</u>	Pre 03/30/2 03/30/2 03/30/2	pared 22 10:05 22 10:05	Analyze 03/30/22 10	be: To Batch: d):35):35):35	tal/N/ 2262 Dil Fa
ethod: 8015B NM - Dies Lab Sample ID: MB 880-2262 Matrix: Solid Analysis Batch: 22606 Analyte Basoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over C10-C28) DII Range Organics (Over C28-C36)	el Range Or 21/1-A R	MB esult <50.0 <50.0 <50.0 MB overy	MB Qualifier U U U	R (GC) R 50.	0	mg/k	(g	<u>D</u>	Pre 03/30/2 03/30/2 03/30/2 Pre	pared 22 10:05 22 10:05 22 10:05 22 10:05	Prep Ty Prep E 03/30/22 10 03/30/22 10 03/30/22 10	pe: To Batch: d 0:35 0:35 d	Dil Fa

Matrix: Solid Prep Type: Total/NA Analysis Batch: 22606 Prep Batch: 22621 Spike %Rec LCS LCS Analyte Added Result Qualifier Unit D %Rec Limits 81 Gasoline Range Organics 1000 807.8 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 810.5 mg/Kg 81 70 - 130

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C10-C28)

QC Sample Results

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

Lab Sample ID: LCS 880-22	2621/2-A						Clien	t Sample	D: Lab Co		
Matrix: Solid									Prep 1	ype: To	tal/NA
Analysis Batch: 22606									Prep	Batch:	22621
	LCS	LCS									
Surrogate	%Recovery		Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	90		70 - 130								
Lab Sample ID: LCSD 880-2	22621/3-A					Clie	nt San	nple ID:	Lab Contro	I Samp	e Dup
Matrix: Solid									Prep 1	ype: To	tal/NA
Analysis Batch: 22606									Prep	Batch:	22621
			Spike	LCSD	LCSD				%Rec		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics			1000	834.6		mg/Kg		83	70 - 130	3	20
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	874.6		mg/Kg		87	70 - 130	8	20
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	96		70 - 130								
Lab Sample ID: 880-13046-	A-1-D MS							Client	Sample ID	: Matrix	Spike
Matrix: Solid									Prep 1	ype: To	tal/NA
Analysis Batch: 22606									Prep	Batch:	22621
	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics	<49.9	U	998	848.3		mg/Kg		85	70 - 130		
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	998	825.6		mg/Kg		83	70 - 130		
C10-C28)											
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane			70 - 130								
o-Terphenyl	122		70 - 130								
Lab Sample ID: 880-13046-	A-1-E MSD					CI	ient S	ample IC): Matrix Sp	oike Dup	olicate
Matrix: Solid									Prep 1	ype: To	tal/NA
Analysis Batch: 22606									Prep	Batch:	22621
	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<49.9	U	998	864.3		mg/Kg		87	70 - 130	2	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<49.9	U	998	761.8		mg/Kg		76	70 - 130	8	20
C10-C28)											
	MSD	MSD									
Surrogate	%Recovery		Limits								
1-Chlorooctane			70 - 130								
- · ·											

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Job ID: 890-2148-1

SDG: 31403720.0000 task20.02

Client: WSP USA Inc.

Project/Site: Broadcaster 29

QC Sample Results

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-22997/1-A											Client S	ample ID:	Method	Blank
Matrix: Solid													Type: S	
Analysis Batch: 23131														
		MB I	МВ											
Analyte	R	esult (Qualifier		RL		Ur	nit	D	P	repared	Analy	zed	Dil Fac
Chloride	<	<5.00 (U		5.00		m	g/Kg				04/08/22	2 04:33	1
Lab Sample ID: LCS 880-22997/2-	A								Cli	ent	Sample	D: Lab C	ontrol S	ample
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 23131														
				Spike		LCS	LCS					%Rec		
Analyte				Added		Result	Qualifie	r Unit		D	%Rec	Limits		
Chloride				250		250.2		mg/Kg			100	90 - 110		
Lab Sample ID: LCSD 880-22997/3	3-A							CI	ient S	am	ple ID:	Lab Contr	ol Samp	le Dup
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 23131														
				Spike		LCSD	LCSD					%Rec		RPD
Analyte				Added		Result	Qualifie	r Unit		D	%Rec	Limits	RPD	Limit
Chloride				250		244.6		mg/Kg			98	90 - 110	2	20
Lab Sample ID: 890-2142-A-22-F M	N S										Client	Sample II	D: Matrix	Spike
Matrix: Solid												Prep	Type: S	oluble
Analysis Batch: 23131														
	Sample	Samp	le	Spike		MS	MS					%Rec		
Analyte	Result	Qualif	ier	Added		Result	Qualifie	r Unit		D	%Rec	Limits		
Chloride	284			249		515.7		mg/Kg			93	90 - 110		
Lab Sample ID: 890-2142-A-22-G I	MSD								Client	t Sa	ample IC): Matrix S	pike Du	plicate
Matrix: Solid													Type: S	
Analysis Batch: 23131														
	Sample	Samp	le	Spike		MSD	MSD					%Rec		RPD
Analyte	Result	Qualif	ier	Added		Result	Qualifie	r Unit		D	%Rec	Limits	RPD	Limit
Chloride	284			249		518.1		mg/Kg		_	94	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Project/Site: Broadcaster 29

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

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GC VOA

Prep Batch: 22658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2148-1	SS05	Total/NA	Solid	5035	
890-2148-2	SS06	Total/NA	Solid	5035	
890-2148-3	SS07	Total/NA	Solid	5035	
MB 880-22658/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-22658/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-22658/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-12957-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
880-12957-A-1-N MS	Matrix Spike	Total/NA	Solid	5035	

Analysis Batch: 22719

880-12957-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	5035		
880-12957-A-1-N MS	Matrix Spike	Total/NA	Solid	5035		8
Analysis Batch: 22719						9
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch	
890-2148-1	SS05	Total/NA	Solid	8021B	22658	10
890-2148-2	SS06	Total/NA	Solid	8021B	22658	
890-2148-3	SS07	Total/NA	Solid	8021B	22658	44
MB 880-22658/5-A	Method Blank	Total/NA	Solid	8021B	22658	
LCS 880-22658/1-A	Lab Control Sample	Total/NA	Solid	8021B	22658	12
LCSD 880-22658/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	22658	
880-12957-A-1-L MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	22658	4.9
880-12957-A-1-N MS	Matrix Spike	Total/NA	Solid	8021B	22658	13
Analysis Batch: 22833						11
, , , , , , , , , ,						14

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2148-1	SS05	Total/NA	Solid	Total BTEX	
890-2148-2	SS06	Total/NA	Solid	Total BTEX	
890-2148-3	SS07	Total/NA	Solid	Total BTEX	
890-2148-3	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 22606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2148-1	SS05	Total/NA	Solid	8015B NM	22621
890-2148-2	SS06	Total/NA	Solid	8015B NM	22621
890-2148-3	SS07	Total/NA	Solid	8015B NM	22621
MB 880-22621/1-A	Method Blank	Total/NA	Solid	8015B NM	22621
LCS 880-22621/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	22621
LCSD 880-22621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	22621
880-13046-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	22621
880-13046-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	22621

Prep Batch: 22621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2148-1	SS05	Total/NA	Solid	8015NM Prep	
890-2148-2	SS06	Total/NA	Solid	8015NM Prep	
890-2148-3	SS07	Total/NA	Solid	8015NM Prep	
MB 880-22621/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-22621/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-22621/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-13046-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-13046-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Client Sample ID

SS05

SS06

SS07

SS07

Method

Matrix Spike

Lab Control Sample

Lab Control Sample Dup

Matrix Spike Duplicate

Prep Type

Total/NA

Total/NA

Total/NA

Soluble

Soluble

Soluble

Soluble

Client: WSP USA Inc. Project/Site: Broadcaster 29

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Method

8015 NM

8015 NM

8015 NM

300.0

300.0

300.0

300.0

Prep Batch

8

22997

22997

22997

22997

Sample ID	Ргер Туре	Matrix	Method	Prep Batch
	Soluble	Solid	DI Leach	
	Soluble	Solid	DI Leach	
	Soluble	Solid	DI Leach	
l Blank	Soluble	Solid	DI Leach	
ntrol Sample	Soluble	Solid	DI Leach	
ntrol Sample Dup	Soluble	Solid	DI Leach	
Spike	Soluble	Solid	DI Leach	
Spike Duplicate	Soluble	Solid	DI Leach	
Sample ID	Ргер Туре	Matrix	Method	Prep Batch
	Soluble	Solid	300.0	22997
	Soluble	Solid	300.0	22997
	Soluble	Solid	300.0	22997
l Blank	Soluble	Solid	300.0	22997

Solid

Solid

Solid

Solid

Matrix

Solid

Solid

Solid

Analysis Batch: 22693

GC Semi VOA

Lab Sample ID

890-2148-1

890-2148-2

890-2148-3

HPLC/IC

890-2148-3

MB 880-22997/1-A

LCS 880-22997/2-A

LCSD 880-22997/3-A

890-2142-A-22-F MS

890-2142-A-22-G MSD

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2148-1	SS05	Soluble	Solid	DI Leach	
890-2148-2	SS06	Soluble	Solid	DI Leach	
890-2148-3	SS07	Soluble	Solid	DI Leach	
MB 880-22997/1-A	Method Blank	Soluble	Solid	DI Leach	
_CS 880-22997/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-22997/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2142-A-22-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2142-A-22-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
nalysis Batch: 23131					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
890-2148-1	SS05	Soluble	Solid	300.0	2299
890-2148-2	SS06	Soluble	Solid	300.0	2299

Released to Imaging: 7/27/2022 10:14:02 AM

Project/Site: Broadcaster 29

Client Sample ID: SS05 Date Collected: 03/29/22 09:40

Date Received: 03/29/22 13:27

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	22658	03/31/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22719	03/31/22 22:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22833	04/01/22 15:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22693	03/31/22 08:59	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	22621	03/30/22 10:05	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/30/22 15:05	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22997	04/05/22 09:20	СН	XEN MID
Soluble	Analysis	300.0		1			23131	04/08/22 07:10	СН	XEN MID

Client Sample ID: SS06

Date Collected: 03/29/22 09:42

Date Received: 03/29/22 13:27

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	22658	03/31/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22719	03/31/22 22:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22833	04/01/22 15:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22693	03/31/22 08:59	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	22621	03/30/22 10:05	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/30/22 15:27	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22997	04/05/22 09:20	СН	XEN MID
Soluble	Analysis	300.0		1			23131	04/08/22 08:20	CH	XEN MID

Client Sample ID: SS07

Date Collected: 03/29/22 09:44 Date Received: 03/29/22 13:27

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.9 g	5 mL	22658	03/31/22 12:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	22719	03/31/22 23:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			22833	04/01/22 15:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			22693	03/31/22 08:59	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	22621	03/30/22 10:05	AM	XEN MID
Total/NA	Analysis	8015B NM		1			22606	03/30/22 15:48	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	22997	04/05/22 09:20	СН	XEN MID
Soluble	Analysis	300.0		1			23131	04/08/22 08:26	СН	XEN MID

Laboratory References:

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

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Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Lab Sample ID: 890-2148-1 Matrix: Solid

5 9

Lab Sample ID: 890-2148-2 Matrix: Solid

Lab Sample ID: 890-2148-3

Matrix: Solid

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Project/Site: Broadcaster 29

Client: WSP USA Inc.

Laboratory: Eurofins Midland

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

uthority	P	rogram	Identification Number	Expiration Date
exas	N	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report. b	ut the laboratory is not certifi	ed by the governing authority. This list ma	v include analytes for wh
the agency does not of	fer certification.	,		,
the agency does not of Analysis Method		Matrix	Analyte	
the agency does not of	fer certification.	,		

Eurofins Carlsbad

Method Summary

Client: WSP USA Inc. Project/Site: Broadcaster 29

Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

lethod	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
otal 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
800.0	Anions, Ion Chromatography	MCAWW	XEN MID
6035	Closed System Purge and Trap	SW846	XEN MID
015NM Prep	Microextraction	SW846	XEN MID
OI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

Protocol References:

ASTM = ASTM International

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

Laboratory References:

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

Eurofins Carlsbad

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Sample Summary

Client: WSP USA Inc. Project/Site: Broadcaster 29 Job ID: 890-2148-1 SDG: 31403720.0000 task20.02

Depth	Received	Collected	Matrix	Client Sample ID	Lab Sample ID
 0.5	03/29/22 13:27	03/29/22 09:40	Solid	SS05	890-2148-1
0.5	03/29/22 13:27	03/29/22 09:42	Solid	SS06	890-2148-2
0.5	03/29/22 13:27	03/29/22 09:44	Solid	SS07	890-2148-3

)				Chain of Custody	stody	Work	Work Order No:	
×		Houst	on,TX (281) 240-4200 and,TX (432-704-5440)	Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)7	louston,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			1 of 1
Project Manager:	Kalei Jennings		Bill to: (if different)	Kalei Jennings	Bill to: (rt different) Kalei Jennings		l <u>ĕ</u>	
	WSP USA		Company Name:			Program: UST/PST	P prownfields PC	Derfund
	3300 North A Street Building 1, unit 222	lding 1, unit 222	Address:	3300 North A Street Building 1, unit 222	Building 1, unit 222	State of Project:]
e ZIP:	Midland, Texas 79705		City, State ZIP:	Midland, Texas 79705	5	Reporting:Level II		
	817-683-2503	Em	Email: Kalei.jennings@wsp.com	@wsp.com		Deliverables: EDD	ADaPT Other:	ter:
Project Name:	Broadcaster 29		Turn Around		ANALYSIS REQUEST	EST	Work	Work Order Notes
er:	31403720.000 task 20.02		Routine					
P.O. Number:		Ru	$ \rangle$					
Sampler's Name:	Payton Benner	Du	Due Date:					
SAMPLE RECEIPT	IPT Temp Blank:	Yes No Wet Ice:	Kes No					
Temperature (°C):	0.3/ E.S	Thermometer ID						
Received Intact:	Las No	IN M-OD	4	5) =8021	890-2148 Chain of Custody	in of Custody		
Sample Custody Seals:	Yes No (Total Containers:		PA 80			lab, if rec	lab, if received by 4:30pm
Sample Identification	ification Matrix	Date Time Sampled Sampled	Depth	Numbe TPH (EI BTEX (I Chlorid			Sampl	Sample Comments
SS05	S	03/29/22 9:40	0.5				D	DISCRETE
SS06		03/29/22 9:42	0.5	1 X X X			D	DISCRETE
SS07	S	03/29/22 9:44	0.5					DISCRETE
Total 200.7 / 6010	10 200.8 / 6020:	BRCRA 13	13PPM Texas 11	Al Sb As Ba Be B	Cd Ca Cr Co Cu Fe Pb	Cu Fe Pb Mg Mn Mo Ni K Se A	Ag SiO2 Na Sr TI Sn	U V Zn
Circle Method	Circle Method(s) and Metal(s) to be analyzed	halyzed ICLP / s	ICLP / SPLP 6010: 8HCHA	1A SD AS BA BE CO	Be Ca Cr Co Cu Po Mit Mo	WIT MO N OF AG 11 O	10317 243.17	1001 1-240-1 1-1-240-1 1-201 911 - 1-1-1 0-1-1-1-201
Notice: Signature of this d of service. Xenco will be I of Xenco. A minimum cha	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to xenco, its anniates and succentractors 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 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	samples constitutes a valid as and shall not assume any each project and a charge of	purchase order from cile responsibility for any los \$5 for each sample subr	int company to Xenco, its artili sees or expenses incurred by t nitted to Xenco, but not analyz	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Aenco, its annuares and subcontractors. It assigns survivous or commonsore 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 contro 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.	 n cassigns standard, remns and continuous are due to circumstances beyond the control enforced unless previously negotiated. 		
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Custody Seals Intact.	Relinquished by	Kelinquished by:		Empty Kit Relinquished by	Deriverable Requested I, II III IV Other (specify)	Unconfirmed	Possible Hazard Identification	ince laboratory ory does not cur lation status sho				SS07 (890-2148-3)	SS06 (890-2148-2)	SS05 (890-2148-1)		Sample Identification - Client ID (Lab ID)			Project Name. Broadcaster 29		Phone ⁻ 432-704-5440(Tel)	tip: 9701	đ	1211 W Florida Ave,	Company Eurofins Environment Testing South Centr	Shipping/Receiving	Client Information	1089 N Canal St. Carlsbad, NM 86220 Phone 575-988-3199 Fax: 575-988-3199	Eurofins Carlsbad
			Lue (shed by:	sted I, II II		Identificatio	accreditations ; rently maintain suld be brought								tion - Clien								ve,	ent Testing	G		220 199 Fax: 5	rlsbad
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	Date/Time	Date/Time	Date/Time:	Ţ	Primary De			t Testing South ove for analysia ntral, LLC atten				3/29/22	3/29/22	3/29/22	X	Sample Date		SSOW#:	Project # 89000048	WO #	PO #		TAT Requested (days):	Due Date Requested 4/4/2022		Phone:	sampier		
				Date	Primary Deliverable Rank.			Central, LLC p s/tests/matrix b tion immediate				2 09 44 Mountain			V		(0)						ed (days):	quested				Chai	
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	Company	Company	Company					ership of meth the samples n sted accreditati				Solid	Solid	Solid	0	8	pie Matrix e (W=water S=solid, mp, O=waste/oil,											ustod	
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Cooler Temperature(s) °C and Other Remarks	oy.	y, J		P	uctions/Q	1 To Client	posal (A	compliance u Eurofins En Im the signe	 	 		× ×	× ×	× ×			21B/5035FP_C		TEX	-				A		ofinset.cor			
°C and Oth			イ	Ρ	C Require	~	fee may	upon out sul wironment T ad Chain of (×	×	×		801	16MOD_Calc							Analysis Requested	See note) NELAP - Texas	з			
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	Date/Time:	Date/Time	Date/Time:	Method of Shipment:		ab	amples a	This samp LLC labora iid complice			 _																No(s)		
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						Archive For	Sample Disposal (A fee may be assessed if samples are retained longer than	Note. Since laboratory accreditations are subject to change. Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Environment Testing South Central, LLC.								Special		Other	K - EDTA L EDA		G Amchlor H Ascorbic Acid	D - Nitric Acid E NaHSO4	B - NaOH C Zn Acetate		Job #: 890-2148-1	Page [.] Page 1 of 1	COC No: 890-691 1	Seurofins	2
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Ver 06/08/2021

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14

Job Number: 890-2148-1

List Source: Eurofins Carlsbad

SDG Number: 31403720.0000 task20.02

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 2148 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	N/A	

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Job Number: 890-2148-1

List Source: Eurofins Midland

List Creation: 03/30/22 11:54 AM

SDG Number: 31403720.0000 task20.02

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 2148 List Number: 2 Creator: Teel, Brianna

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

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").

Received by OCD: 7/25/2022 12:52:28 PM

🔅 eurofins

Environment Testing America

ANALYTICAL REPORT

Eurofins Xenco, Midland 1211 W. Florida Ave Midland, TX 79701 Tel: (432)704-5440

Laboratory Job ID: 880-9168-1

Laboratory Sample Delivery Group: 32.282, -103.49 Client Project/Site: Broadcaster 29 Federal 0003H

For:

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

Attn: Kalei Jennings

RAMER

Authorized for release by: 12/14/2021 2:13:07 PM

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

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

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

Total Access Have a Question? Ask The Expert Visit us at: www.eurofinsus.com/Env

LINKS

Review your project results through

Released to Imaging: 7/27/2022 10:14:02 AM

Laboratory Job ID: 880-9168-1 SDG: 32.282, -103.49

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	21
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3

Job ID: 880-9168-1	
SDG: 32.282, -103.49)

Qualifiers

		J
GC VOA		
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	-
F2	MS/MSD RPD exceeds control limits	5
S1-	Surrogate recovery exceeds control limits, low 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.	
S1-	Surrogate recovery exceeds control limits, low biased.	8
U	Indicates the analyte was analyzed for but not detected.	
HPLC/IC		9
Qualifier	Qualifier Description	
F1	MS and/or MSD recovery exceeds control limits.	
U	Indicates the analyte was analyzed for but not detected.	
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	

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

Job ID: 880-9168-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-9168-1

Receipt

The samples were received on 12/9/2021 9:39 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 4.2°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-14352 and analytical batch 880-14356 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SS02 (880-9168-2). Evidence of matrix interferences is not obvious.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-14498 and analytical batch 880-14772 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample ID: SS01

Date Collected: 12/07/21 09:33

Job ID: 880-9168-1 SDG: 32.282, -103.49

Lab Sample ID: 880-9168-1

Matrix: Solid

Method: 8021B - Volatile Organic	c Compounds	GC)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:55	
Toluene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:55	
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:55	
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		12/09/21 10:15	12/09/21 14:55	
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:55	
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		12/09/21 10:15	12/09/21 14:55	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	118		70 - 130				12/09/21 10:15	12/09/21 14:55	
1,4-Difluorobenzene (Surr)	91		70 - 130				12/09/21 10:15	12/09/21 14:55	
Method: Total BTEX - Total BTEX	Calculation								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00399	U	0.00399		mg/Kg			12/10/21 14:15	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	271		49.9		mg/Kg			12/13/21 12:32	
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/10/21 22:10	
Diesel Range Organics (Over	271	F1	49.9		mg/Kg		12/10/21 15:20	12/10/21 22:10	
C10-C28) Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/10/21 15:20	12/10/21 22:10	
Surrogata	⁹ / Basayany	Qualifiar	Limits				Branarad	Analyzad	
Surrogate 1-Chlorooctane	% <i>Recovery</i> 92	Qualifier	70 - 130				Prepared 12/10/21 15:20	Analyzed 12/10/21 22:10	Dil Fa
o-Terphenyl	92		70 - 130 70 - 130				12/10/21 15:20	12/10/21 22:10	
o-reipnenyi	92		70 - 130				12/10/21 15.20	12/10/21 22.10	
Method: 300.0 - Anions, Ion Chro Analyte		Soluble Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride	23.0		4.98		mg/Kg			12/14/21 09:56	
	20.0						Lab Car		0400
lient Sample ID: SS02							Lap Sal	nple ID: 880-	
ate Collected: 12/07/21 10:40								Matri	x: Soli
ate Received: 12/09/21 09:39									
ample Depth: 0.5									
Method: 8021B - Volatile Organio						_			
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00199		0.00199		mg/Kg		12/09/21 10:15	12/09/21 15:15	
	<0.00199		0.00199		mg/Kg		12/09/21 10:15	12/09/21 15:15	
Ethylbenzene	<0.00199		0.00199		mg/Kg		12/09/21 10:15	12/09/21 15:15	
m-Xylene & p-Xylene	<0.00398		0.00398		mg/Kg		12/09/21 10:15	12/09/21 15:15	
o-Xylene	<0.00199		0.00199		mg/Kg		12/09/21 10:15	12/09/21 15:15	
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 10:15	12/09/21 15:15	
•									

Surrogate	%Recovery Qu	alifier Limits	Prepared	Analyzed
4-Bromofluorobenzene (Surr)	101	70 - 130	12/09/21 10:15	12/09/21 15:15

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Released to Imaging: 7/27/2022 10:14:02 AM

Dil Fac

Client Sample Results

Client: WSP USA Inc. Project/Site: Broadcaster 29 Federal 0003H

Client Sample ID: SS02

Date Collected: 12/07/21 10:40

Date Received: 12/09/21 09:39

Sample Depth: 0.5

Method: 8021B - Volatile Organic	Compounds (GC) (Contir	nued)					
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed
1,4-Difluorobenzene (Surr)	86		70 - 130				12/09/21 10:15	12/09/21 15:15
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/10/21 14:15
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Total TPH	8710		250		mg/Kg			12/13/21 12:32
Method: 8015B NM - Diesel Range	Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Gasoline Range Organics (GRO)-C6-C10	<250	U	250		mg/Kg		12/10/21 15:20	12/10/21 23:12
Diesel Range Organics (Over C10-C28)	8710		250		mg/Kg		12/10/21 15:20	12/10/21 23:12
Oll Range Organics (Over C28-C36)	<250	U	250		mg/Kg		12/10/21 15:20	12/10/21 23:12
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed
1-Chlorooctane	65	S1-	70 - 130				12/10/21 15:20	12/10/21 23:12
o-Terphenyl	98		70 - 130				12/10/21 15:20	12/10/21 23:12
Method: 300.0 - Anions, Ion Chror	natography -	Soluble						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Chloride	122		4.99		mg/Kg			12/14/21 10:16

Client Sample ID: SS03

Date Collected: 12/07/21 09:40 Date Received: 12/09/21 09:39 Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac Benzene <0.00200 U 0.00200 mg/Kg 12/09/21 10:15 12/09/21 15:36 Toluene <0.00200 U 0.00200 12/09/21 10:15 12/09/21 15:36 mg/Kg 1 Ethylbenzene <0.00200 U 0.00200 mg/Kg 12/09/21 10:15 12/09/21 15:36 0.00401 m-Xylene & p-Xylene <0.00401 U 12/09/21 10:15 12/09/21 15:36 mg/Kg 1 o-Xylene <0.00200 U 0.00200 mg/Kg 12/09/21 10:15 12/09/21 15:36 1 Xylenes, Total <0.00401 U 0.00401 mg/Kg 12/09/21 10:15 12/09/21 15:36 1 %Recovery Qualifier Limits Prepared Dil Fac Surrogate Analvzed 70 - 130 12/09/21 10:15 4-Bromofluorobenzene (Surr) 113 12/09/21 15:36 1 1,4-Difluorobenzene (Surr) 95 70 - 130 12/09/21 10:15 12/09/21 15:36 1 Method: Total BTEX - Total BTEX Calculation Analyte RL MDL Unit D Result Qualifier Prepared Analyzed Dil Fac Total BTEX < 0.00401 U 0.00401 mg/Kg 12/10/21 14:15 1 Method: 8015 NM - Diesel Range Organics (DRO) (GC) Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac **Total TPH** 49.9 mg/Kg 12/13/21 12:32 283 1

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Job ID: 880-9168-1 SDG: 32.282, -103.49

Lab Sample ID: 880-9168-2

Matrix: Solid

Dil Fac

Dil Fac

Dil Fac

Dil Fac

1

5

5

5

5 5

Dil Fac

Dil Fac

Matrix: Solid

Lab Sample ID: 880-9168-3

Project/Site: Broadcaster 29 Federal 0003H

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

Method: 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

Qualifier

<49.9 U

283

<49.9 U

88

86

283

Result Qualifier

%Recovery

RL

49.9

49.9

49.9

RL

5.00

Limits

70 - 130

70 - 130

MDL Unit

MDL Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

D

D

Prepared

12/10/21 15:20

12/10/21 15:20

12/10/21 15:20

Prepared

12/10/21 15:20

12/10/21 15:20

Prepared

Job ID: 880-9168-1 SDG: 32.282, -103.49

Client Sample ID: SS03

Client: WSP USA Inc.

Sample Depth: 0.5

Gasoline Range Organics

Diesel Range Organics (Over

Client Sample ID: SS04

Date Collected: 12/07/21 09:42

Date Received: 12/09/21 09:39

Sample Depth: 0.5

Oll Range Organics (Over C28-C36)

Analyte

(GRO)-C6-C10

C10-C28)

Surrogate

o-Terphenyl

Analyte

Chloride

1-Chlorooctane

Date Collected: 12/07/21 09:40 Date Received: 12/09/21 09:39

Lab Sample ID: 880-9168-3

Matrix: Solid

5

1

1

1

1

1

Dil Fac

Lab Sample ID: 880-9168-4 Matrix: Solid

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/09/21 10:15	12/09/21 19:29	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/09/21 10:15	12/09/21 19:29	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/09/21 10:15	12/09/21 19:29	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/09/21 10:15	12/09/21 19:29	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/09/21 10:15	12/09/21 19:29	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 10:15	12/09/21 19:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130				12/09/21 10:15	12/09/21 19:29	1
1,4-Difluorobenzene (Surr)	90		70 - 130				12/09/21 10:15	12/09/21 19:29	1
Method: Total BTEX - Total BTE		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total BTEX	Result <0.00398	U	RL	MDL	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 12/10/21 14:15	
Analyte Total BTEX Method: 8015 NM - Diesel Range	e Organics (DR	U O) (GC)	0.00398		mg/Kg		<u> </u>	12/10/21 14:15	1
Analyte Total BTEX Method: 8015 NM - Diesel Range Analyte	e Organics (DR Result	U	0.00398 RL	MDL	mg/Kg Unit	<u>D</u>	Prepared Prepared	12/10/21 14:15 Analyzed	Dil Fac 1 Dil Fac
Analyte Total BTEX Method: 8015 NM - Diesel Range	e Organics (DR	U O) (GC)	0.00398		mg/Kg		<u> </u>	12/10/21 14:15	1
Analyte Total BTEX Method: 8015 NM - Diesel Range Analyte	e Organics (DR Result e Organics (A Result 64.4	U O) (GC) Qualifier	0.00398 RL		mg/Kg Unit		<u> </u>	12/10/21 14:15 Analyzed	1 Dil Fac
Analyte Total BTEX Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Ran	e Organics (DR Result e Organics (DR Result 64.4 ge Organics (D	U O) (GC) Qualifier	0.00398 RL	MDL	mg/Kg Unit		<u> </u>	12/10/21 14:15 Analyzed	Dil Fac
Analyte Total BTEX Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Ran Analyte Gasoline Range Organics	e Organics (DR Result e Organics (DR Result 64.4 ge Organics (D	U O) (GC) Qualifier RO) (GC) Qualifier	0.00398	MDL	mg/Kg Unit mg/Kg	<u>D</u>	Prepared	Analyzed 12/13/21	Dil Fac
Analyte Total BTEX Method: 8015 NM - Diesel Range Analyte Total TPH	e Organics (DR Result e Organics (DR Result 64.4 ge Organics (D Result	U O) (GC) Qualifier RO) (GC) Qualifier	0.00398	MDL	mg/Kg Unit mg/Kg Unit	<u>D</u>	Prepared	12/10/21 14:15 Analyzed 12/13/21 12:32 Analyzed	1 Dil Fac

1	Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1	1-Chlorooctane	96		70 - 130	12/10/21 15:20	12/10/21 23:54	1
4	p-Terphenyl	98		70 - 130	12/10/21 15:20	12/10/21 23:54	1

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Analyzed Dil Fac 12/10/21 23:33 12/10/21 23:33 12/10/21 23:33 Analyzed Dil Fac

12/10/21 23:33

12/10/21 23:33

Analyzed

12/14/21 10:23

Released to Imaging: 7/27/2022 10:14:02 AM

	Client	Sample R	esults	;					
Date Collected: 12/07/21 09:42 Matrix: Solid Date Received: 12/09/21 09:39 4 Sample Depth: 0.5 4 Method: 300.0 - Anions, Ion Chromatography - Soluble 5 Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac									
Client Sample ID: SS04 Date Collected: 12/07/21 09:42						Lab Sa	-		
Date Received: 12/09/21 09:39 Sample Depth: 0.5									4
		RL	MDL	Unit	D	Prepared	Analvzed	Dil Fac	5
Chloride	 								
									8
									9

Eurofins Xenco, Midland

Project/Site: Broadcaster 29 Federal 0003H

Job ID: 880-9168-1 SDG: 32.282, -103.49

Prep Type: Total/NA

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Client: WSP USA Inc.

				Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)		
880-9151-A-1-C MS	Matrix Spike	98	63 S1-	·	
880-9151-A-1-D MSD	Matrix Spike Duplicate	118	96		
880-9168-1	SS01	118	91		
880-9168-2	SS02	101	86		
880-9168-3	SS03	113	95		
880-9168-4	SS04	125	90		
LCS 880-14352/1-A	Lab Control Sample	109	96		
LCSD 880-14352/2-A	Lab Control Sample Dup	107	95		
MB 880-14352/5-A	Method Blank	122	101		
Surrogate Legend					

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

_				Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1		
Lab Sample ID	Client Sample ID	(70-130)	(70-130)		
880-9168-1	SS01	92	92		
880-9168-1 MS	SS01	90	83		
880-9168-1 MSD	SS01	92	70		
880-9168-2	SS02	65 S1-	98		
880-9168-3	SS03	88	86		
880-9168-4	SS04	96	98		
Sumonoto Lonond					

Surrogate Legend 1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

Prep Type: Total/NA

Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-14526/2-A	Lab Control Sample	98	109	
LCSD 880-14526/3-A	Lab Control Sample Dup	115	112	
MB 880-14526/1-A	Method Blank	104	117	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Lab Sample ID: MB 880-14352/5-A

QC Sample Results

Method: 8021B - Volatile Organic Compounds (GC)

							Prep Type: 1	fotal/NA
							Prep Batch	n: 14352
MB	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
< 0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
<0.00400	U	0.00400		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
<0.00400	U	0.00400		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
МВ	МВ							
%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
122		70 - 130				12/09/21 10:15	12/09/21 14:05	1
101		70 - 130				12/09/21 10:15	12/09/21 14:05	1
	Result <0.00200	Result Qualifier <0.00200	Result Qualifier RL <0.00200	Result Qualifier RL MDL <0.00200	Result Qualifier RL MDL Unit <0.00200	Result Qualifier RL MDL Unit D <0.00200	Result Qualifier RL MDL Unit D Prepared <0.00200	MB MB Result Qualifier RL MDL Unit D Prepared Analyzed <0.00200

Lab Sample ID: LCS 880-14352/1-A Matrix: Solid

Analysis Batch: 14356

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09391		mg/Kg		94	70 - 130	
Toluene	0.100	0.1001		mg/Kg		100	70 - 130	
Ethylbenzene	0.100	0.1033		mg/Kg		103	70 - 130	
m-Xylene & p-Xylene	0.200	0.2028		mg/Kg		101	70 - 130	
o-Xylene	0.100	0.09703		mg/Kg		97	70 - 130	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-14352/2-A

Matrix: Solid

Analysis Batch: 14356							Prep	Batch:	14352
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.09215		mg/Kg		92	70 - 130	2	35
Toluene	0.100	0.09617		mg/Kg		96	70 - 130	4	35
Ethylbenzene	0.100	0.09594		mg/Kg		96	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1903		mg/Kg		95	70 - 130	6	35
o-Xylene	0.100	0.09404		mg/Kg		94	70 - 130	3	35

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

Lab Sample ID: 880-9151-A-1-C MS

Matrix: Solid

Analysis Batch: 14356									Prep	Batch: 14352
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1	0.101	0.05745	F1	mg/Kg		57	70 - 130	
Toluene	<0.00202	U F1 F2	0.101	0.05205	F1	mg/Kg		52	70 - 130	

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Prep Type: Total/NA

Client Sample ID: Matrix Spike

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Type: Total/NA

Prep Batch: 14352

13

Client Sample ID: Lab Control Sample Dup
QC Sample Results

Client: WSP USA Inc. Project/Site: Broadcaster 29 Federal 0003H

Job ID: 880-9168-1 SDG: 32.282, -103.49

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

Lab Sample ID: 880-9151-A-	-1-C MS											Client S	Sample ID:		
Matrix: Solid													Prep T	ype: To	tal/NA
Analysis Batch: 14356													Prep	Batch:	14352
	Sample	Sampl	e	Spike		MS	MS						%Rec.		
Analyte	Result	Qualif	ier	Added		Result	Quali	fier	Unit		D	%Rec	Limits		
Ethylbenzene	<0.00202	U F1		0.101		0.06151	F1		mg/Kg			61	70 - 130		
m-Xylene & p-Xylene	<0.00403	U F1		0.202		0.1252	F1		mg/Kg			62	70 - 130		
o-Xylene	<0.00202	U F1		0.101		0.06914	F1		mg/Kg			69	70 - 130		
	MS	MS													
Surrogate	%Recovery	Qualif	ïer	Limits											
4-Bromofluorobenzene (Surr)	98			70 - 130											
1,4-Difluorobenzene (Surr)	63	S1-		70 - 130											
Lab Sample ID: 880-9151-A	-1-D MSD									Clie	nt Sa	ample ID:	: Matrix Sp	ike Du	olicate
Matrix: Solid													Prep T	ype: To	tal/NA
Analysis Batch: 14356														Batch:	
	Sample	Sampl	e	Spike		MSD	MSD						%Rec.		RPD
Analyte	Result	Qualif	ier	Added		Result	Quali	fier	Unit		D	%Rec	Limits	RPD	Limit
Benzene	< 0.00202	U F1		0.0998		0.07782			mg/Kg			78	70 - 130	30	35
Toluene	<0.00202	U F1 F	2	0.0998		0.07605	F2		mg/Kg			76	70 - 130	37	35
Ethylbenzene	<0.00202	U F1		0.0998		0.07871			mg/Kg			79	70 - 130	25	35
m-Xylene & p-Xylene	<0.00403	UF1		0.200		0.1559			mg/Kg			78	70 - 130	22	35
o-Xylene	<0.00202	U F1		0.0998		0.08168			mg/Kg			82	70 _ 130	17	35
	MSD	MSD													
Surrogate	%Recovery	Qualif	ïer	Limits											
4-Bromofluorobenzene (Surr)	118			70 - 130											
1,4-Difluorobenzene (Surr)	96			70 - 130											
lethod: 8015B NM - Die	sel Range O	rgani	cs (DR	O) (GC)											
Lab Sample ID: MB 880-145	10C/4 A											Oliont Co			Diank
Matrix: Solid	20/1-A											Chefit Sa	ample ID: M		
													Prep T		
Analysis Batch: 14439		МВ М	ив										Fieh	Batch:	14520
Analyte	R		Qualifier		RL		MDL	Unit		D	Р	repared	Analyze	ed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10		<50.0 l	·		50.0			mg/Kg		-		0/21 15:20	12/10/21 2		1
Diesel Range Organics (Over C10-C28)	~	<50.0 l	J		50.0			mg/Kg			12/1	0/21 15:20	12/10/21 2	21:07	

<50.0	U	50.0	mg/Kg	12/10/21 15:20	12/10/21 21:07	1
МВ	МВ					
%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
/arecovery	Quanner	LIIIIIIS		Fiepaieu	Analyzeu	DirFac
104	Quanner	70 - 130		12/10/21 15:20	12/10/21 21:07	1

Lab Sample ID: LCS 880-14526/2-A **Client Sample ID: Lab Control Sample** Matrix: Solid Prep Type: Total/NA Analysis Batch: 14439 Spike LCS LCS %Rec. Analyte hobb A Result Qualifier Unit п % Poc l imite

Analyte	Added	Result	Quaimer	Unit	U	%Rec	Limits
Gasoline Range Organics	1000	839.8		mg/Kg		84	70 - 130
(GRO)-C6-C10							
Diesel Range Organics (Over	1000	971.0		mg/Kg		97	70 - 130
C10-C28)							

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Prep Batch: 14526

Oll Range Organics (Over C28-C36)

Surrogate

o-Terphenyl

1-Chlorooctane

QC Sample Results

Client: WSP USA Inc. Project/Site: Broadcaster 29 Federal 0003H

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

Lab Sample ID: LCS 880-1452	6/2-A						Client	Sample	ID: Lab Co		
Matrix: Solid									Prep T	ype: Tot	tal/N
Analysis Batch: 14439									Prep	Batch:	1452
	LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	98		70 - 130								
o-Terphenyl	109		70 - 130								
Lab Sample ID: LCSD 880-14	526/3-A					Clier	nt Sam	ple ID:	Lab Contro	I Sample	e Du
Matrix: Solid								· · · ·	Prep T	ype: Tot	tal/N
Analysis Batch: 14439										Batch:	
			Spike	LCSD	LCSD				%Rec.		RF
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lin
Gasoline Range Organics			1000	888.4		mg/Kg		89	70 - 130	6	2
(GRO)-C6-C10											
Diesel Range Organics (Over			1000	949.8		mg/Kg		95	70 - 130	2	:
C10-C28)											
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	115		70 - 130								
p-Terphenyl	112		70 - 130								
nalyte	Result	Sample Qualifier	Spike Added	Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics GRO)-C6-C10	<49.9	U	997	1194		mg/Kg		120	70 - 130		
Diesel Range Organics (Over	271	F1	997	1617	F1	mg/Kg		135	70 - 130		
C10-C28)								100	10 100		
	MS	MS									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	90		70 - 130								
p-Terphenyl	83		70 - 130								
_ab Sample ID: 880-9168-1 M	SD								Client Sar	nple ID:	SS
Matrix: Solid									Prep T	ype: Tot	tal/N
Analysis Batch: 14439									Prep	Batch:	1452
	Sample	Sample	Spike	MSD	MSD				%Rec.		RF
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Lin
Analyte			999	1251		mg/Kg		125	70 - 130	5	
Gasoline Range Organics	<49.9	0									
Gasoline Range Organics GRO)-C6-C10	<49.9 271		999	1499		mg/Kg		123	70 - 130	8	
Casoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over			999	1499		mg/Kg		123	70 - 130	8	
Gasoline Range Organics GRO)-C6-C10 Diesel Range Organics (Over	271		999	1499		mg/Kg		123	70 - 130	8	:
Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Surrogate	271 MSD %Recovery	F1 <i>MSD</i>	999 Limits	1499		mg/Kg		123	70 - 130	8	2
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	271 MSD	F1 <i>MSD</i>		1499		mg/Kg		123	70 - 130	8	:

Eurofins Xenco, Midland

Client: WSP USA Inc.

QC Sample Results

Job ID: 880-9168-1 SDG: 32.282, -103.49

Project/Site: Broadcaster 29 Federal 0003H

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14498/1-A										(Client S	ample ID		
Matrix: Solid												Prep	o Type: S	oluble
Analysis Batch: 14772														
		MB MB												
Analyte		esult Quali	fier	RL		MDL	Unit		D	Pre	epared	Analy	/zed	Dil Fac
Chloride	<	5.00 U		5.00			mg/Kg					12/14/21	1 08:56	1
Lab Sample ID: LCS 880-14498/2-A									Clie	ent	Sample	D: Lab C	Control S	ample
Matrix: Solid												Prep	o Type: S	oluble
Analysis Batch: 14772														
			Spike		LCS	LCS						%Rec.		
Analyte			Added		Result	Quali	ifier	Unit		D	%Rec	Limits		
Chloride			250		250.7			mg/Kg			100	90 _ 110		
Lab Sample ID: LCSD 880-14498/3-A								Cli	ient S	amı	ole ID:	Lab Contr	ol Samp	le Dup
Matrix: Solid													o Type: S	
Analysis Batch: 14772														
			Spike		LCSD	LCSE)					%Rec.		RPD
Analyte			Added		Result	Quali	ifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride			250		254.6			mg/Kg			102	90 - 110	2	20
Lab Sample ID: 880-9166-A-2-C MS											Client	Sample II	D: Matrix	Spike
Matrix: Solid												Prep	o Type: S	oluble
Analysis Batch: 14772														
	Sample	Sample	Spike		MS	MS						%Rec.		
Analyte	Result	Qualifier	Added		Result	Quali	ifier	Unit		D	%Rec	Limits		
Chloride	102	F1	248		387.7	F1		mg/Kg			115	90 - 110		
Lab Sample ID: 880-9166-A-2-D MSD)							(Client	Sa	mple IC): Matrix S	Spike Du	plicate
Matrix: Solid											· ·		Type: S	
Analysis Batch: 14772														
-	Sample	Sample	Spike		MSD	MSD						%Rec.		RPD
Analyte	Result	Qualifier	Added		Result	Quali	ifier	Unit		D	%Rec	Limits	RPD	Limit
Chloride	102	F1	248		375.5			mg/Kg			110	90 - 110	3	20

QC Association Summary

Client: WSP USA Inc. Project/Site: Broadcaster 29 Federal 0003H

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Job ID: 880-9168-1 SDG: 32.282, -103.49

GC VOA

Prep Batch: 14352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9168-1	SS01	Total/NA	Solid	5035	
880-9168-2	SS02	Total/NA	Solid	5035	
880-9168-3	SS03	Total/NA	Solid	5035	
880-9168-4	SS04	Total/NA	Solid	5035	
MB 880-14352/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14352/1-A	Lab Control Sample	Total/NA	Solid	5035	
_CSD 880-14352/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9151-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-9151-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 14356

Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch	
SS01	Total/NA	Solid	8021B	14352	
SS02	Total/NA	Solid	8021B	14352	
SS03	Total/NA	Solid	8021B	14352	
SS04	Total/NA	Solid	8021B	14352	
Method Blank	Total/NA	Solid	8021B	14352	
Lab Control Sample	Total/NA	Solid	8021B	14352	40
Lab Control Sample Dup	Total/NA	Solid	8021B	14352	13
Matrix Spike	Total/NA	Solid	8021B	14352	
Matrix Spike Duplicate	Total/NA	Solid	8021B	14352	
	SS01 SS02 SS03 SS04 Method Blank Lab Control Sample Lab Control Sample Dup Matrix Spike	SS01 Total/NA SS02 Total/NA SS03 Total/NA SS04 Total/NA Method Blank Total/NA Lab Control Sample Total/NA Lab Control Sample Dup Total/NA Matrix Spike Total/NA	SS01Total/NASolidSS02Total/NASolidSS03Total/NASolidSS04Total/NASolidMethod BlankTotal/NASolidLab Control SampleTotal/NASolidLab Control Sample DupTotal/NASolidMatrix SpikeTotal/NASolid	SS01Total/NASolid8021BSS02Total/NASolid8021BSS03Total/NASolid8021BSS04Total/NASolid8021BMethod BlankTotal/NASolid8021BLab Control SampleTotal/NASolid8021BLab Control Sample DupTotal/NASolid8021BMatrix SpikeTotal/NASolid8021B	SS01Total/NASolid8021B14352SS02Total/NASolid8021B14352SS03Total/NASolid8021B14352SS04Total/NASolid8021B14352Method BlankTotal/NASolid8021B14352Lab Control SampleTotal/NASolid8021B14352Lab Control Sample DupTotal/NASolid8021B14352Matrix SpikeTotal/NASolid8021B14352

Analysis Batch: 14508

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
880-9168-1	SS01	Total/NA	Solid	Total BTEX	
880-9168-2	SS02	Total/NA	Solid	Total BTEX	
880-9168-3	SS03	Total/NA	Solid	Total BTEX	
880-9168-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 14439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9168-1	SS01	Total/NA	Solid	8015B NM	14526
880-9168-2	SS02	Total/NA	Solid	8015B NM	14526
880-9168-3	SS03	Total/NA	Solid	8015B NM	14526
880-9168-4	SS04	Total/NA	Solid	8015B NM	14526
MB 880-14526/1-A	Method Blank	Total/NA	Solid	8015B NM	14526
LCS 880-14526/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14526
LCSD 880-14526/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14526
880-9168-1 MS	SS01	Total/NA	Solid	8015B NM	14526
880-9168-1 MSD	SS01	Total/NA	Solid	8015B NM	14526

Prep Batch: 14526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9168-1	SS01	Total/NA	Solid	8015NM Prep	
880-9168-2	SS02	Total/NA	Solid	8015NM Prep	
880-9168-3	SS03	Total/NA	Solid	8015NM Prep	
880-9168-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-14526/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14526/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: WSP USA Inc. Project/Site: Broadcaster 29 Federal 0003H

GC Semi VOA (Continued)

Prep Batch: 14526 (Continued)

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
LCSD 880-14526/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-9168-1 MS	SS01	Total/NA	Solid	8015NM Prep	
880-9168-1 MSD	SS01	Total/NA	Solid	8015NM Prep	
Analysis Batch: 14652					

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batcl
880-9168-1	SS01	Total/NA	Solid	8015 NM	
880-9168-2	SS02	Total/NA	Solid	8015 NM	
880-9168-3	SS03	Total/NA	Solid	8015 NM	
880-9168-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 14498

Lab Sample ID	Client Sample ID	Ргер Туре	Matrix	Method	Prep Batch
880-9168-1	SS01	Soluble	Solid	DI Leach	
880-9168-2	SS02	Soluble	Solid	DI Leach	
880-9168-3	SS03	Soluble	Solid	DI Leach	
880-9168-4	SS04	Soluble	Solid	DI Leach	
MB 880-14498/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14498/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14498/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9166-A-2-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-9166-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 14772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9168-1	SS01	Soluble	Solid	300.0	14498
880-9168-2	SS02	Soluble	Solid	300.0	14498
880-9168-3	SS03	Soluble	Solid	300.0	14498
880-9168-4	SS04	Soluble	Solid	300.0	14498
MB 880-14498/1-A	Method Blank	Soluble	Solid	300.0	14498
LCS 880-14498/2-A	Lab Control Sample	Soluble	Solid	300.0	14498
LCSD 880-14498/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14498
880-9166-A-2-C MS	Matrix Spike	Soluble	Solid	300.0	14498
880-9166-A-2-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	14498

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Job ID: 880-9168-1

SDG: 32.282, -103.49

Project/Site: Broadcaster 29 Federal 0003H

Job ID: 880-9168-1 SDG: 32.282, -103.49

Lab Sample ID: 880-9168-1 Matrix: Solid

Client Sample ID: SS01 Date Collected: 12/07/21 09:33 Date Received: 12/09/21 09:39

Client: WSP USA Inc.

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	14352	12/09/21 10:15	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14356	12/09/21 14:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			14508	12/10/21 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/10/21 22:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	14498	12/10/21 12:22	СН	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 09:56	СН	XEN MID

Client Sample ID: SS02

Date Collected: 12/07/21 10:40

Date Received: 12/09/21 09:39

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14352	12/09/21 10:15	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14356	12/09/21 15:15	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			14508	12/10/21 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		5			14439	12/10/21 23:12	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14498	12/10/21 12:22	СН	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 10:16	СН	XEN MID

Client Sample ID: SS03

Date Collected: 12/07/21 09:40

Date Received: 12/09/21 09:39

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	14352	12/09/21 10:15	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14356	12/09/21 15:36	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			14508	12/10/21 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/10/21 23:33	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	14498	12/10/21 12:22	СН	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 10:23	CH	XEN MID

Client Sample ID: SS04 Date Collected: 12/07/21 09:42 Date Received: 12/09/21 09:39

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	14352	12/09/21 10:15	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14356	12/09/21 19:29	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			14508	12/10/21 14:15	AJ	XEN MID

Eurofins Xenco, Midland

Lab Sample	ID:	880-9168-2
		Matrix: Solid

Lab Sample ID: 880-9168-3

Lab Sample ID: 880-9168-4

Matrix: Solid

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Matrix: Solid

Client Sample ID: SS04

Date Collected: 12/07/21 09:42 Date Received: 12/09/21 09:39

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	14526	12/10/21 15:20	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/10/21 23:54	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	14498	12/10/21 12:22	СН	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 10:29	СН	XEN MID

Laboratory References:

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

Job ID: 880-9168-1 SDG: 32.282, -103.49

Lab Sample ID: 880-9168-4

Matrix: Solid

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Eurofins Xenco, Midland

		Accreditation/C	ertification Summary		
Client: WSP USA Inc. Project/Site: Broadcast	er 29 Federal 0003H			Job ID: 880 SDG: 32.282,	
Laboratory: Eurofi			reditation/certification below.		3
Authority		rogram	Identification Number	Expiration Date	4
Texas		ELAP	T104704400-21-22	06-30-22	E
The following analytes the agency does not of		ut the laboratory is not certif	ied by the governing authority. This list ma	y include analytes for which	5
Analysis Method	Prep Method	Matrix	Analyte		
8015 NM		Solid	Total TPH		
Total BTEX		Solid	Total BTEX		
					8
					9
					10
					_
					13
					14

Eurofins Xenco, Midland

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Job ID: 880-9168-1 SDG: 32.282, -103.49

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
	"Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edi = TestAmerica Laboratories, Standard Operating Procedure	ition, November 1986 And Its Updates.	
Laboratory R	eferences: = Eurofins Xenco, Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)70	4.5440	

Laboratory References:

Job ID: 880-9168-1 SDG: 32.282, -103.49

Client: WSP USA Inc. Project/Site: Broadcaster 29 Federal 0003H

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth	
880-9168-1	SS01	Solid	12/07/21 09:33	12/09/21 09:39	0.5	
380-9168-2	SS02	Solid	12/07/21 10:40	12/09/21 09:39	0.5	
880-9168-3	SS03	Solid	12/07/21 09:40	12/09/21 09:39	0.5	5
880-9168-4	SS04	Solid	12/07/21 09:42	12/09/21 09:39	0.5	
						8
						9
						4
						1

5		Provide Orginatine or this ordering in a minimum or samples and prioritation and even the clean it also private or the cost of samples and conditions of service. Xenco will be lable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the clean it 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 samples automated to Xenco, but not analyzed These terms will be enforced unless previously negotiated. Realing unshed by (Signesture) Decouved by (Consecture) Decouved by (Consecture	Total 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed				SS04	SS03	SS02	SS01	Sample Identification	Sample Custody Seals Yes No	Cooler Custody Seals Yes No	Received Intact. Yes	Temperature (°C) 4,1/L	SAMPLE RECEIPT Ter			Project Location 32	Project Number 3/4037 20.000	Project Name Broadcast	Phone 817-683-2503	City State ZIP MIdland,	Address 3300 North Astreet	Company Name WSP	Project Manager Kalei J.		
	A - I - We delived by	ost of samples and shall not a species of the	6020: 8RCRA) to be analyzed TCI			╞┈┤	SC 12/7/2021	SC 12/7/2021	SL 12/7/2021	5L 12/7/2021	Matrix Date Sampled	o (N/A) Total Containers	o MA Correction Factor	No		Temp Blank Yes No	2	Hadlie Green	32 282, -103 49	000 20.02	Broadcaster 29 Federal 0003H	-2503	, TX JAJOS	h Astreet	USA	Jennings		
	y (Signature)	ures a valid purchase order fro issume any responsibility for a charge of \$5 for each sampl	RA 13PPM Texas 11 TCLP / SPLP 6010 8R					940 05	1040 05	933 05	Time Depth Sampled	Brs		TPE	5) Wet Ice (Yes) No	TAT	Due Date 5 0AV	Rush	Routine X	Turn Around	Email Kale	City State ZIP	Address	Company Name	Bill to (if different)		ומוווµמ רב (סוט) עבע
	Uate/Ime	om client company to Xenco, i any losses or expenses incurr le submitted to Xenco, but not	11 Al Sb As Ba Be B 8RCRA Sb As Ba Be				×	X X X	X X X	X X X	Numb Code BTEX TPH CHLOF			ntai	ner	s/Pro	ser	vati	ive			Kalei.Jennings@wsp.com	Midland,	300 North	ব্যুৎশ	nn Kalei	0000-644 (0.1.) YO PUIDUU	Atlanta CA (776
0	Relinquished by (Signature)	its affiliates and subcontractors red by the client if such losses a t analyzed These terms will be e	3 Cd Ca Cr Co Cu Fe Cd Cr Co Cu Pb Mn																		ANALYSIS RE	usp.com	TX 79705	A street	USA	Jennings	0) +++=-0000	Atlanta CA (770) AND R800
	-	It assigns standard terms and conditions re due to circumstances beyond the contro nforced unless previously negotiated.	Pb Mg Mn Mo Ni K Se Mo Ni Se Ag Ti U								,										QUEST	Deliverables EDD	Reporting Level C Level PST/US	State of Project	Program UST/PST P	N.	www.	001) 029-0701
	Received by (Signature)	ditions control d.	∋ Ag SiO2 Na Sr Ti Sn U V Zn 1631/245.1/7470 /7471						1	2	Samp	l Al stats lab if m	TAT starts t	Zn Acetate+ NaOH Zn	MeOH Me	NaOH Na	None NO	нсіні	H2S04 H2	HNO3 HN	Prese	ADaPT			PRP Brownfield RR	ğ	www.xenco.com Page	a a su a
Revised Date 101419 Rev 2019	Date/Time		Sn U V Zn 17470 / 7471 Hg)	Sample Comments	ab if received by 4 30pm	the devices and the sta	+ NaOH Zn							Preservative Codes	Other:			থ ☐ Superfund		of /	



Page 83 of 104

Chain of Custody

13

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 Carlsbad NM (575) 988-3199 Phoenix, AZ (480) 355-0900 Tampa FL (813) 620-2000 Tallahassee FL (850) 756-0747 Delray Beach FL (561) 689-67

0-9168 Chain of Custody

Job Number: 880-9168-1 SDG Number: 32.282. -103.49

List Source: Eurofins Xenco, Midland

Login Sample Receipt Checklist

Client: WSP USA Inc.

Login Number: 9168 List Number: 1 Creator: Rodriguez, Leticia

Question Answer Comment The cooler's custody seal, if present, is intact. N/A N/A Sample custody seals, if present, are intact. The cooler or samples do not appear to have been compromised or True tampered with. 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 True HTs) 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 True MS/MSDs

N/A

Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").



APPENDIX D

NMOCD Notifications

From:	Nobui, Jennifer, EMNRD	
То:	Kalei Jennings	
Cc:	Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD	
Subject:	FW: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)	
Date:	Wednesday, June 8, 2022 5:31:39 PM	
Attachments:	image001.png	
	image002.png	
	image003.png	
	image004.png	

[**EXTERNAL EMAIL**]

Kalei

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks, Jennifer Nobui

From: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Sent: Wednesday, June 8, 2022 4:21 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD
<Jennifer.Nobui@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Harimon,
Jocelyn, EMNRD <Jocelyn.Harimon@state.nm.us>
Subject: Fw: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

From: Kalei Jennings <kjennings@ensolum.com Sent: Wednesday, June 8, 2022 4:11 PM To: Enviro, OCD, EMNRD <<u>OCD.Enviro@state.nm.us</u>> Subject: [EXTERNAL] Sampling Notification (Week of 06/13/22-06/17/22)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

COP plans to complete final sampling activities at the following sites the week of June 13, 2022.

Monday

• Columbus Fed 021 & 022H CTB / NAPP2203830124

Tuesday

- Battle Axe Federal Com 002H / NAPP2134740531
- Broadcaster 29 Federal 3H / NAPP2201938653 & NAPP2132773092

- Super Cobra State Com #001H / NAPP2211531225
- Raspberry State Com 001H / NAPP2213029810

Wednesday

- Raspberry State Com 001H / NAPP2213029810
- Jaguar 18 State Com 002H & 003H / NAPP2213643210
- ٠

Thursday

Friday

Thank you,



Kalei Jennings Senior Scientist 817-683-2503 Ensolum, LLC

From:	Beauvais, Charles R
То:	Kalei Jennings
Subject:	FW: [EXTERNAL](Extension Approval) Broadcaster 29 Federal 003H (Incident Number NAPP2132773092)
Date:	Tuesday, April 26, 2022 9:40:39 AM
Attachments:	image002.jpg
	image003.png

[**EXTERNAL EMAIL**]

FYI

From: Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>

Sent: Tuesday, April 26, 2022 7:45 AM

To: Beauvais, Charles R < Charles.R.Beauvais@conocophillips.com>; Esparza, Brittany

<Brittany.Esparza@conocophillips.com>

Cc: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Nobui, Jennifer, EMNRD <Jennifer.Nobui@state.nm.us>

Subject: [EXTERNAL](Extension Approval) Broadcaster 29 Federal 003H (Incident Number NAPP2132773092)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

RE: Incident #NAPP2132773092

Charles,

Your request for an extension to **July 24th, 2022** is approved. Please include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet • Environmental Specialist - Advanced Environmental Bureau EMNRD - Oil Conservation Division 811 S. First Street | Artesia, NM 88210 575.909.0302 | robert.hamlet@state.nm.us http://www.emnrd.state.nm.us/OCD/



From: Beauvais, Charles R <<u>Charles.R.Beauvais@conocophillips.com</u>> Sent: Monday, April 25, 2022 5:34 PM To: EMNRD-OCD-District1spills <<u>EMNRD-OCD-District1spills@state.nm.us</u>>; Hamlet, Robert, EMNRD
<<u>Robert.Hamlet@state.nm.us</u>>; Esparza, Brittany <<u>Brittany.Esparza@conocophillips.com</u>>
Cc: Bratcher, Mike, EMNRD <<u>mike.bratcher@state.nm.us</u>>

Subject: [EXTERNAL] Extension Request- Broadcaster 29 Federal 003H (Incident Number NAPP2132773092)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

To Whom It May Concern,

COP is requesting an extension of the current April 24, 2022 deadline for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC for the Broadcaster 29 Federal 003H (Incident Number NAPP2132773092). The release was discovered on October 26, 2021. There was a second release event on January 4, 2022 (Incident Number NAPP2201938653). Remediation activities are ongoing. In addition, COP intends to drill a depth to water boring to confirm the closure criteria at the Site. The two release events will be addressed simultaneously. In order to complete remediation activities, allow time to drill the depth to water boring, and submit a remediation work plan or closure report, COP request an extension of the deadline until July 24, 2022.

Respectfully,

Charles R. Beauvais II

Senior Environmental Engineer | Environmental Operations | ConocoPhillips (M) 575-988-2043 Charles.R.Beauvais@conocophillips.com

Our work is never so urgent or important that we cannot take the time to do it safely and in an environmentally responsible manner.





APPENDIX E

Final C-141

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

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

)

Page 91eof 104

Incident ID	NAPP2132773092
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude	

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

Surface Owner: State Federal Tribal Private (Name: _

Nature and Volume of Release

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

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Incident ID	NAPP2132773092
District RP	
Facility ID	
Application ID	

Page Alent AAA

Was this a major release as defined by	If YES, for what reason(s) does the responsible party consider this a major release?
19.15.29.7(A) NMAC?	
🗌 Yes 🗌 No	
If YES, was immediate no	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Initial Response

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

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

The source of the release has been stopped.

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name	Title:
Signature: _ Partiane Jopange	Date:
email:	Telephone:
OCD Only	
Received by: Ramona Marcus	Date: <u>11/29/2021</u>

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

NAPP2132773092	Page 93cof 104
	CONDITIONS

Action 63506

CONDITIONS

Operator: (OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	63506
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	11/29/2021

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
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- \boxtimes Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- \boxtimes 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.

Page 3

Received by OCD: 7/25/2022 12:52:28 PM Form C-141 State	e of New Mexico		Page 95 of 104
		Incident ID	NAPP2132773092
Page 4 Oil Co	nservation Division	District RP	
		Facility ID	
		Application ID	
I hereby certify that the information given above regulations all operators are required to report an public health or the environment. The acceptance failed to adequately investigate and remediate co addition, OCD acceptance of a C-141 report does and/or regulations. Printed Name:Charles Beauvais Signature:Charles R. Beauvais 99 email:Charles.R.Beauvais@conocophi	d/or file certain release notifications and perform e of a C-141 report by the OCD does not relieve ntamination that pose a threat to groundwater, su s not relieve the operator of responsibility for cor 	n corrective actions for rele the operator of liability sho inface water, human health	eases which may endanger ould their operations have or the environment. In deral, state, or local laws
OCD Only			
Received by:	Date:		

Received by OCD: 7/25/2022 12:52:28 PM Form C-141 State of New Mexico

Oil Conservation Division

<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

P	age	9	6	0	f 1	0	4

Incident ID	NAPP2132773092
District RP	
Facility ID	
Application ID	

Remediation 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. Title: Senior Environmental Engineer Charles Beauvais Printed Name: Signature: Charles R. Beauvais ?? 07/25/2022 Date: Charles.R.Beauvais@conocophillips.com Telephone: __ 575-988-2043 email: OCD Only _____ Date: ____ Received by: Approved Approved with Attached Conditions of Approval Denied Deferral Approved ennifer Nobui Date: 07/27/2022 Signature:

Page 5

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	NAPP2201938653
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Kelsy Waggaman	Contact Telephone	(432) 688-9057
Contact email	Kelsy.Waggaman@ConocoPhillips.com	Incident # (assigned by OCD)	NAPP2201938653
Contact mailing address	600 West Illinois Avenue, Midlar	nd, Texas 79701	

Location of Release Source

Latitude 32.28158

Longitude -103.49006

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Broadcaster 29 Federal 003H	Site Type	Tank Battery
Date Release Discovered	January 4, 2022	API# (if applicable)	

Unit Letter	Section	Township	Range	County
В	29	23S	34E	Lea

Surface Owner: State Federal Tribal Private (Name: Limestone Basin Prop Ranch, LLC)

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) 0.2	Volume Recovered (bbls) 0
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

The release was caused by a oil to flare event.

No fluid was recovered due to the fire burning off and standing fluid. The release resulted in a flare fire on and off pad.

Received by OCD: 1/19/2022 10:51:59 AM Form C-141 State of New Mexico
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Page 2

Oil Conservation Division

WV	<i>20:41:</i>	<i>01 7707</i>	Z/ZZ/Z	:SuigpmI	of besaled to	4

Incident ID	NAPP2201938653
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release? The release involved a fire.
🔳 Yes 🗌 No	
If YES, was immediate n	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
	as given by Kelsy Waggaman via e-mail January 5, 2022 at 6:00 pm to ill@blm.gov and ocd.enviro@state.nm.us.

Initial Response

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

The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have <u>not</u> been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name. Brittany N. Esparza	Title: Environmental Technician
Signature:	Date: <u>1/19/2022</u> Telephone: <u>(432) 221-0398</u>
OCD Only Received by: Ramona Marcus	Date: <u>1/19/2022</u>

02									PA
A				L48 Spill Volume	Estimate Form				
Seceived by OCL): 1/19/2022	10:51 Facht Marne & Number	BROADCASTER 29	FED 3H BATTERY / LEASE #NM0921	99 / API #30-025-41909				Page 3 of 4
		Asset Area:	NDBE	the second second second			NAPP2201938	653	
	R	elease Discovery Date & Time:	1-4-2021 @ 10:28A	M			111112201750	000	
Release Type:			Oil	a straw in our owners and the	Concernant of the second second		and the second second	and and an and a set	and a second
	Provide any	known details about the event:	modifications to the	hatton Como of the modifications ins	imp moze, this did not allow supply gas to	enter the uump caus	any the unit to be ind	perable: A rew monuter i	ack we made
				Spill Calculation - Subsu					
	Was	the release on pad or off-pad?	3		See reference tab	le below			
Has	it rained at least a	a half inch in the last 24 hours?		94 T	See reference tab	le below		<i>v</i>	
Convert Irregular shape nto a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	80.0	40.0	0.03	15.16%	1.486	0.225			
Rectangle B		and the second			0.000	0.000			
Rectangle C					0.000	0.000			
Rectangle D			2		0.000	0.000			
Rectangle E					0.000	0.000			
Rectangle F					0.000	0.000			
Rectangle G					0.000	0.000			
Rectangle H			-		0.000	0.000			
Rectangle					0.000	0.000			
Refeased to Imag	ing: 1/19/202	22.8:16:48 PM			0.000	0.000			
states states	0				Total Volume Release	0.225			

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Received by OCD: 7/25/2022 12:52:28 H

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

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CONDITIONS

Action 73462

CONDITIONS

Operator: COG OPERATING LLC	OGRID: 229137
	Action Number:
Midland, TX 79701	73462
	Action Type:
	[C-141] Release Corrective Action (C-141)
CONDITIONS	

Created By Condition Condition Date 1/19/2022 None rmarcus

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Incident IDNAPP2201938653District RPFacility IDApplication 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 X 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
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-mile of the lateral extents of the release
- \boxtimes Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- \boxtimes Laboratory data including chain of custody

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

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			Incident ID	NAPP2201938653
Page 4	Oil Conservation Divis	sion	District RP	
			Facility ID	
			Application ID	
regulations all operators are republic health or the environm failed to adequately investigat addition, OCD acceptance of and/or regulations. Printed Name:Charles R. Signature:Charles R.	nation given above is true and complete equired to report and/or file certain releas ent. The acceptance of a C-141 report by the and remediate contamination that pose a C-141 report does not relieve the opera es Beauvais Beauvais Beauvais 99 tvais@conocophillips.com	se notifications and perform y the OCD does not relieve a threat to groundwater, s tor of responsibility for co 	n corrective actions for rele the operator of liability sh urface water, human health	eases which may endanger rould their operations have or the environment. In oderal, state, or local laws
OCD Only				
Received by:		Date:		

Received by OCD: 7/25/2022 12:52:28 PM Form C-141 State of New Mexico

Oil Conservation Division

Incident ID	NAPP2201938653
District RP	
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Remediation Plan

<u>Remediation Plan Checklist</u>: 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

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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)

<u>Deferral Requests Only</u> : Each of the following items must be conj	firmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around prodeconstruction.	oduction equipment where remediation could cause a major facility
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 rules and regulations all operators are required to report and/or file ce which may endanger public health or the environment. The acceptan liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD a responsibility for compliance with any other federal, state, or local la	ertain release notifications and perform corrective actions for releases ince of a C-141 report by the OCD does not relieve the operator of and remediate contamination that pose a threat to groundwater, cceptance of a C-141 report does not relieve the operator of
Printed Name:Charles Beauvais	Title:Senior Environmental Engineer
Signature: Charles R. Beauvais ??	Date:07/25/2022
email:Charles.R.Beauvais@conocophillips.com	Telephone:575-988-2043
OCD Only	
Received by:	Date:
Approved Approved with Attached Conditions of A	Approval Denied Deferral Approved
Signature: Jennifer Nobui	Date: 07/27/2022

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

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

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	OGRID:
COG OPERATING LLC	229137
	Action Number:
Midland, TX 79701	128451
	Action Type:
	[C-141] Release Corrective Action (C-141)
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CONDITIONS

Created By		Condition Date
jnobui	Remediation Plan Approved.	7/27/2022

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Action 128451

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