

August 30, 2022

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

Re: Closure Request

Macho Nacho State Com 010H Incident Number NAPP2132756247 Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this Closure Request to document site assessment, excavation, and soil sampling activities performed at the Macho Nacho State Com 010H (Site, Figure 1). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a crude oil flare fire at the Site. Based on the excavation activities and laboratory analytical results from the soil sampling events, COG is submitting this Closure Request, describing remediation that has occurred and requesting closure for Incident Number NAPP2132756247.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit M, Section 07, Township 24 South, Range 33 East, in Lea County, New Mexico (32.22551° N, 103.61708° W) and is associated with oil and gas exploration and production operations on New Mexico State Land.

On November 10, 2021, a heater swamped out, resulting in the release of approximately 0.5 barrels (bbls) of crude oil out of the flare, which also resulted in a fire on the well pad. No fluids were recovered. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on November 10, 2021 and submitted a Release Notification Form C-141 (Form C-141) on November 23, 2021. The release was assigned Incident Number NAPP2132756247.

SITE CHARATERIZATION 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). 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 New Mexico Office of the State Engineer (NMOSE) Well C-03565-POD 3, located approximately 8,134 feet northeast of the Site. The groundwater well has a reported depth to

Ensolum, LLC | Environmental, Engineering & Hydrogeologic Consultants 601 North Marienfeld Street, Suite 400 | Midland, TX 79701 | ensolum.com Texas PG Firm No. 50588 | Texas PE Firm No. F-21843



groundwater greater than 100 feet bgs and an unknown total depth. Ground surface elevation at the groundwater well location is 3,639 feet above mean sea level (amsl), which is approximately 25 feet higher in elevation than the Site. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 2.18 miles northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

A reclamation closure criteria of 600 mg/kg chloride was applied to the top 4 feet the pasture area that was impacted by the release, per NMAC 19.15.29.13.D (1) for the top 4 feet of areas that will be reclaimed following remediation.

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On November 29, 2021, WSP Inc. (WSP), a third-party environmental consustant, completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Nine preliminary assessment soil samples (SS01 through SS09) were collected within and around the release extent at a depth of approximately 0.5 feet bgs to assess the lateral extent of the release. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The preliminary 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 procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS02 and SS05, collected within the release extent, indicated TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary samples SS01, SS03, SS04, collected within the release extent, and SS06 through SS09, collected outside of the release extent, indicated benzene, BTEX, TPH-



GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and confirmed the lateral extent of the release. Based on visible staining in the release area and laboratory analytical results for preliminary soil samples SS02 and SS05, additional remediation activities appeared to be warranted.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On February 14, 2022, and August 22, 2022, WSP and Ensolum personnel, respectively, were at the Site to oversee delineation and excavation activities. Five boreholes (BH01/BH01A through BH05/BH05A) were advanced via hand auger within the release extent to assess the vertical extent of impacted soil. The boreholes were advanced to a depth of 2 feet bgs. Delineation soil samples were collected from each borehole at depths of 1-foot and 2 feet bgs. Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations for the boreholes were logged on lithologic soil sampling logs, which are included in Appendix B. The delineation soil sample locations are depicted on Figure 3.

Upon completion of delineation activities, impacted soil was excavated from the release area as indicated by visible staining and laboratory analytical results for preliminary soil samples SS02 and SS05. Excavation activities, completed on pad, were performed using a track-mounted backhoe and transport vehicles. To direct excavation activities, soil was screened for VOCs and chloride. The excavation was completed to a depth of 1-foot bgs. Photographic documentation of the excavation activities is included in Appendix C.

Following removal of the impacted soil, 5-point composite soil samples were collected every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS05 were collected from the floor of the excavation at a depth of 1-foot bgs. Due to the shallow depth of the excavation, sidewalls were incorporated into the floor samples. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 4.

The excavation area measured approximately 947 square feet. A total of approximately 35 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

Laboratory analytical results for the delineation soil samples collected from boreholes BH01/BH01A through BH05/BH05A and excavation floor samples FS01 through FS05, collected from the final excavation extent, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the November 10, 2021, crude oil flare fire release. Laboratory analytical results for delineation soil samples and excavation soil samples, collected from the final excavation extent, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further



remediation was required. COG will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. COG believes these remedial actions are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2132756247. The Form C-141 is included as Appendix F.

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

Sincerely, Ensolum, LLC

Hadlie Green Staff Geologist Kalei Jennings [©] Senior Scientist

cc: Charles Beauvais, COG Operating, LLC

New Mexico State Land Office

Appendices:

Figure 1	Site Location Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Delineation Soil Sample Locations
Figure 4	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Lithologic Soil Sampling Logs
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Appendix C Photographic Log

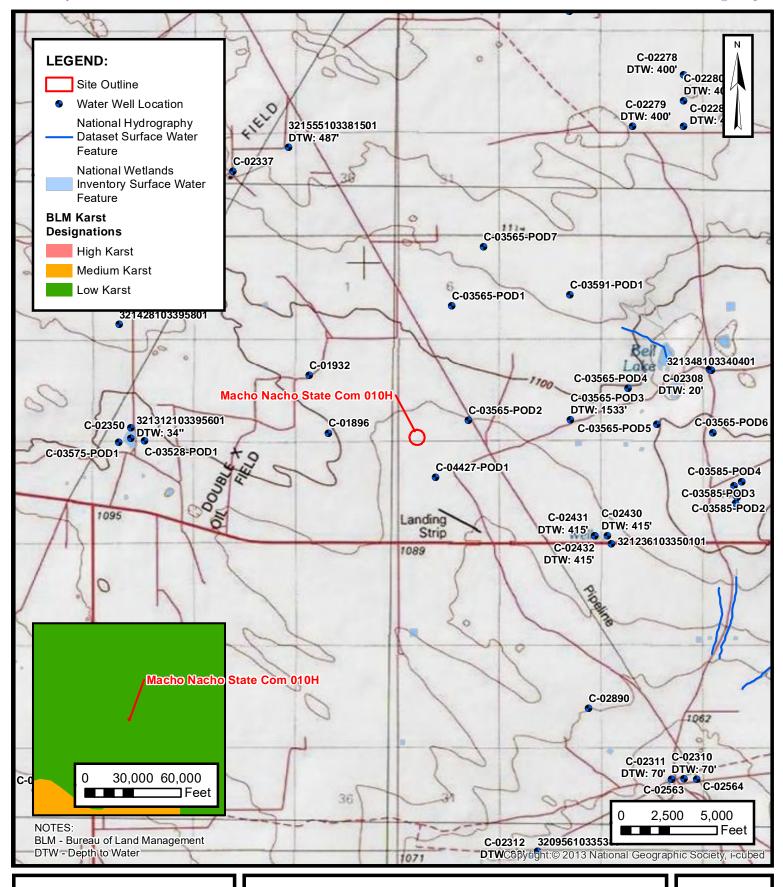
Appendix D Laboratory Analytical Reports & Chain-of-Custody Documentation

Appendix E NMOCD Sample Notification

Appendix F Final C-141



FIGURES

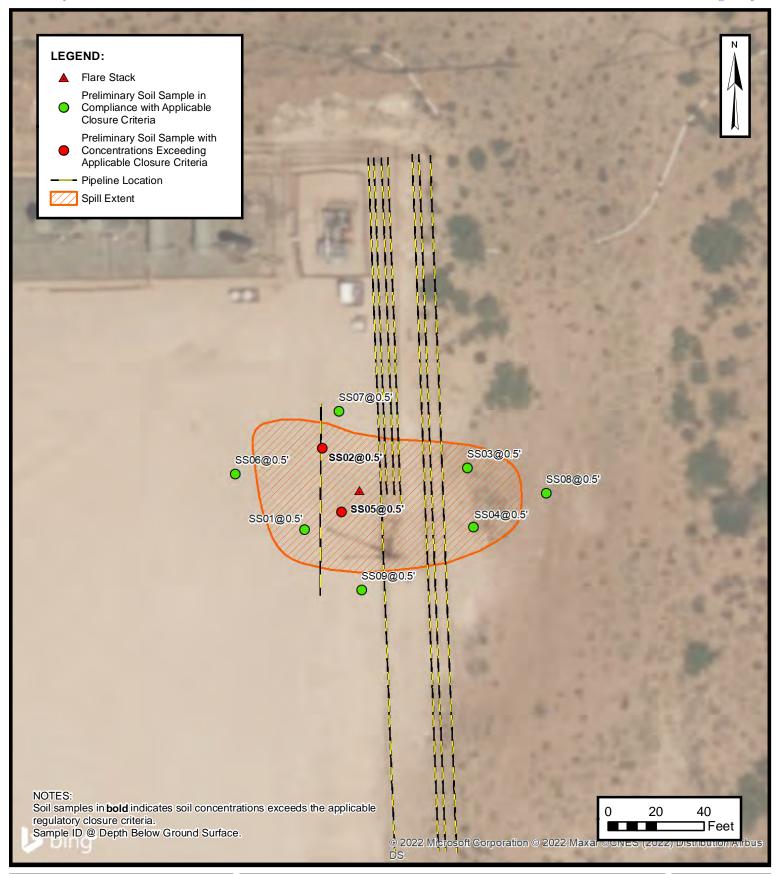




SITE RECEPTOR MAP

COG OPERATING, LLC
MACHO NACHO STATE COM 010H

Incident Number NAPP2132756247 Unit M, Sec 07, T24S, R33E Lea County, New Mexico FIGURE

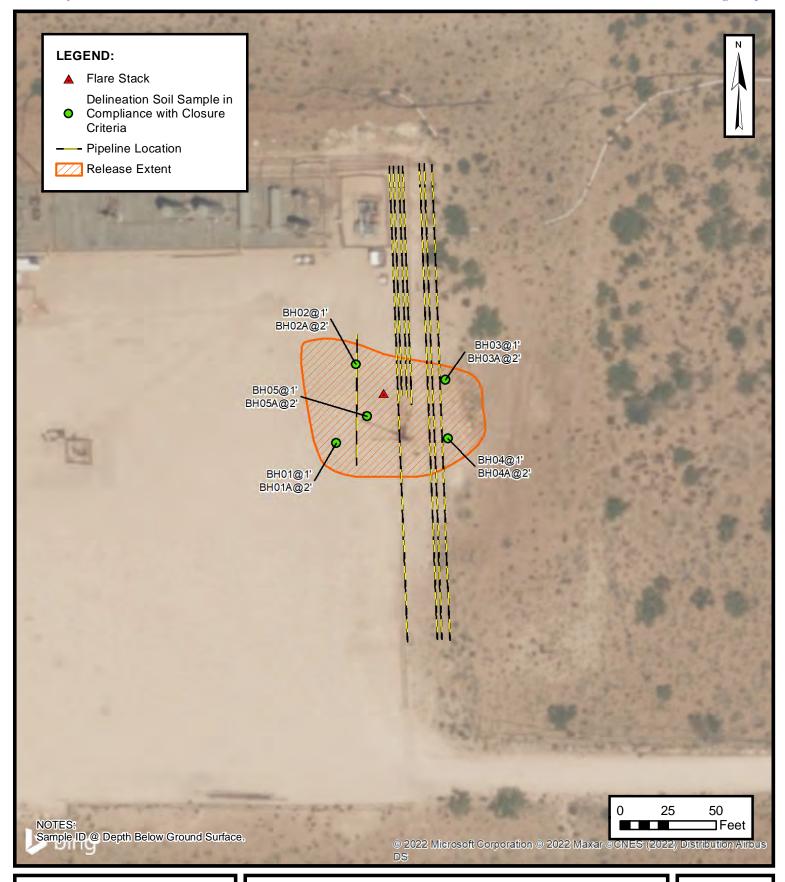




PRELIMINARY SOIL SAMPLE LOCATIONS

COG OPERATING, LLC MACHO NACHO STATE COM 010H

Incident Number NAPP2132756247 Unit M, Sec 07, T24S, R33E Lea County, New Mexico **FIGURE**

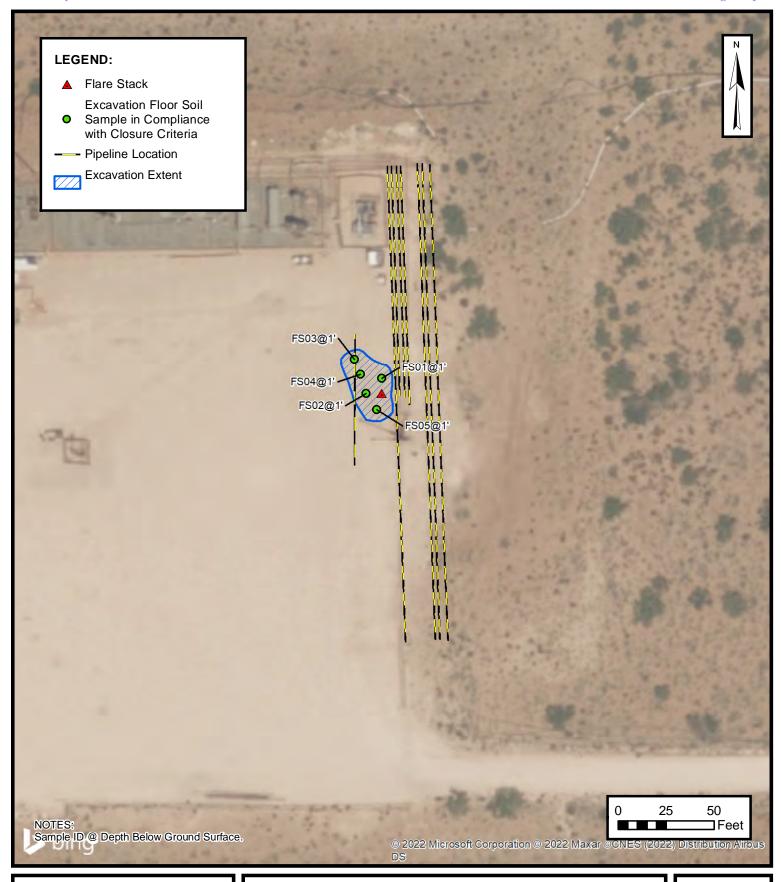




DELINEATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC MACHO NACHO STATE COM 010H

Incident Number NAPP2132756247 Unit M, Sec 07, T24S, R33E Lea County, New Mexico **FIGURE**





EXCAVATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC MACHO NACHO STATE COM 010H

> Incident Number NAPP2132756247 Unit M, Sec 07, T24S, R33E Lea County, New Mexico

FIGURE

4

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TABLES



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Macho Nacho State Com 010H 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	Closure Criteria	(NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
				Prelimina	ry Assessment Soil	Samples				
SS01	11/29/2021	0.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<4.99
SS02	11/29/2021	0.5	< 0.00202	< 0.00404	4,540	< 50.0	< 50.0	4,540	4,540	47.7
SS03	11/29/2021	0.5	< 0.00200	< 0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	<49.5
SS04	11/29/2021	0.5	< 0.00198	< 0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	< 5.02
SS05	11/29/2021	0.5	< 0.00199	< 0.00398	3,760	<49.8	<49.8	3,760	3,760	56.7
SS06	11/29/2021	0.5	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	172
SS07	11/29/2021	0.5	< 0.00201	< 0.00402	457	<49.8	<49.8	57.0	57.0	17.6
SS08	11/29/2021	0.5	< 0.00200	< 0.00401	<50.0	< 50.0	< 50.0	<50.0	<50.0	< 5.00
SS09	11/29/2021	0.5	< 0.00202	< 0.00403	< 50.0	< 50.0	< 50.0	<50.0	< 50.0	<4.96
				Del	ineation Soil Sampl	es				
BH01	02/14/2022	1	< 0.00199	< 0.00398	< 50.0	< 50.0	< 50.0	<50.0	< 50.0	42.0
BH01A	02/14/2022	2	< 0.00200	< 0.00401	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	24.5
BH02	02/14/2022	1	< 0.00200	< 0.00401	< 50.0	< 50.0	< 50.0	<50.0	< 50.0	28.6
BH02A	08/22/2022	2	< 0.00202	< 0.00404	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	22.4
BH03	02/14/2022	1	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	13.3
ВН03А	02/14/2022	2	< 0.00200	< 0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	5.01
BH04	02/14/2022	1	< 0.00200	< 0.00399	< 50.0	< 50.0	< 50.0	<50.0	< 50.0	<4.95
BH04A	02/14/2022	2	< 0.00199	< 0.00398	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0	< 5.01
BH05	02/14/2022	1	< 0.00202	< 0.00404	<49.9	<49.9	<49.9	<49.9	<49.9	13.6
BH05A	08/22/2022	2	< 0.00202	< 0.00403	<49.9	51.1	<49.9	51.1	51.1	8.15



TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS Macho Nacho State Com 010H 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 (Closure Criteria	(NMAC 19.15.29)	10	50	NE	NE	NE	1,000	2,500	20,000
	Excavation Soil Samples									
FS01	08/22/2022	1	< 0.00200	< 0.00399	<50.0	< 50.0	<50.0	<50.0	< 50.0	8.97
FS02	08/22/2022	1	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	9.11
FS03	08/22/2022	1	< 0.00201	< 0.00402	<50.0	< 50.0	<50.0	< 50.0	< 50.0	25.8
FS04	08/22/2022	1	< 0.00202	< 0.00404	<50.0	< 50.0	<50.0	<50.0	< 50.0	13.7
FS05	08/22/2022	1	< 0.00199	< 0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	14.5

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria for Soils Impacted by a Release

Grey text represents samples that have been excavated



APPENDIX A

Referenced Well Records



New Mexico Office of the State Engineer

Water Right Summary

get image list

WR File Number: C 03565 Subbasin: CUB Cross Reference: -

Primary Purpose: EXP EXPLORATION

Primary Status:

Total Acres: Subfile: - Header: -

Total Diversion: 0 Cause/Case: -

Owner: INTERCONTINENTAL POTASH CORP

Contact: TOM COPE

Documents on File

 Status
 From/

 Trn#
 Doc
 File/Act
 1
 2
 Transaction Desc.
 To
 Acres
 Diversion
 Consumptive

 509298
 EXPL
 2012-08-07
 PMT
 APR
 C 03565
 T
 0
 0

Current Points of Diversion

(NAD83 UTM in meters)

			Q					(,	
POD Number	Well Tag	Source	64 Q16	Q4	Sec	Tws R	ng	X	\mathbf{Y}	Other Location Desc
<u>C 03565 POD1</u>			1	4	06	24S 3	33E	630871	3568316	ICP-083
<u>C 03565 POD2</u>			3	4	07	24S 3	3E	631156	3566515	ICP-084
<u>C 03565 POD3</u>			3	4	08	24S 3	33E	632763	3566546	ICP-085
<u>C 03565 POD4</u>			4	1	09	24S 3	3E	633672	3567057	ICP-086
<u>C 03565 POD5</u>			3	4	09	24S 3	33E	634135	3566496	ICP-87
<u>C 03565 POD6</u>			3	3	10	24S 3	33E	635022	3566373	ICP-089
<u>C 03565 POD7</u>			2	2	06	24S 3	3E	631361	3569250	ICP-090
C 03565 POD8			4	1	15	24S 3	3E	635485	3565610	ICP-092
C 03565 POD9			4	4	15	24S 3	3E	636430	3565005	ICP-093

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, usability, or suitability for any particular purpose of the data.

11/29/21 8:14 AM WATER RIGHT SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag **POD Number** Q64 Q16 Q4 Sec Tws Rng

 \mathbf{X}

C 03565 POD3

24S 33E 08

632763

3566546

Driller License: 331 **Driller Company:**

SBQ2, LLC DBA STEWART BROTHERS DRILLING

CO.

Driller Name:

09/27/2012

Drill Finish Date:

10/21/2012

Plug Date:

Drill Start Date: Log File Date:

12/11/2012

PCW Rcv Date:

Source:

Pump Type:

Pipe Discharge Size:

Estimated Yield:

Casing Size:

8.90 Depth Well: **Depth Water:**

1533 feet

Water Bearing Stratifications:	Тор	Bottom	Description
	0	20	Other/Unknown
	20	55	Sandstone/Gravel/Conglomerate
	55	1227	Shale/Mudstone/Siltstone
	1227	1262	Other/Unknown
	1262	1295	Other/Unknown
	1295	1310	Other/Unknown
	1310	1330	Other/Unknown
	1330	1375	Other/Unknown
	1479	1489	Other/Unknown
	1489	1533	Other/Unknown

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, usability, or suitability for any particular purpose of the data.

11/29/21 8:14 AM

POINT OF DIVERSION SUMMARY



USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources	(Cooperator Access)	Data Category:		Geographic Area:		
obdb Water Resources	(Cooperator Access)	Site Information	~	United States	~	GO

Click to hideNews Bulletins

- Explore the NEW <u>USGS National Water Dashboard</u> interactive map to access realtime water data from over 13,500 stations nationwide.
- Full News

USGS 321312103395601 24S.32E.10.344333

Available data for this site SUMMARY OF ALL AVAILABLE DATA V GO

Well Site

DESCRIPTION:

Latitude 32°13'30.4", Longitude 103°39'52.7" NAD83 Lea County, New Mexico , Hydrologic Unit 13070007

Well depth: 60 feet

Land surface altitude: 3,589.00 feet above NGVD29.

Well completed in "Other aguifers" (N9999OTHER) national aguifer.

Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits"

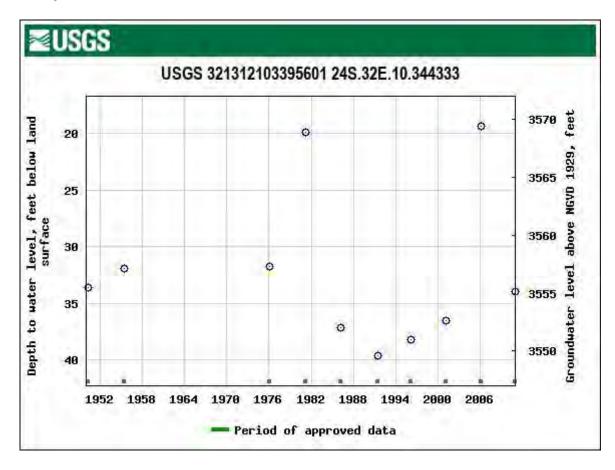
(110AVMB) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count		
Field groundwater-level measurements	1950-04-13	2010-12-16	10		
Revisions	Unavailable (site:0) (timeseries:0)				
Additional Data Sources	Begin Date	End Date	Count		

OPERATION:

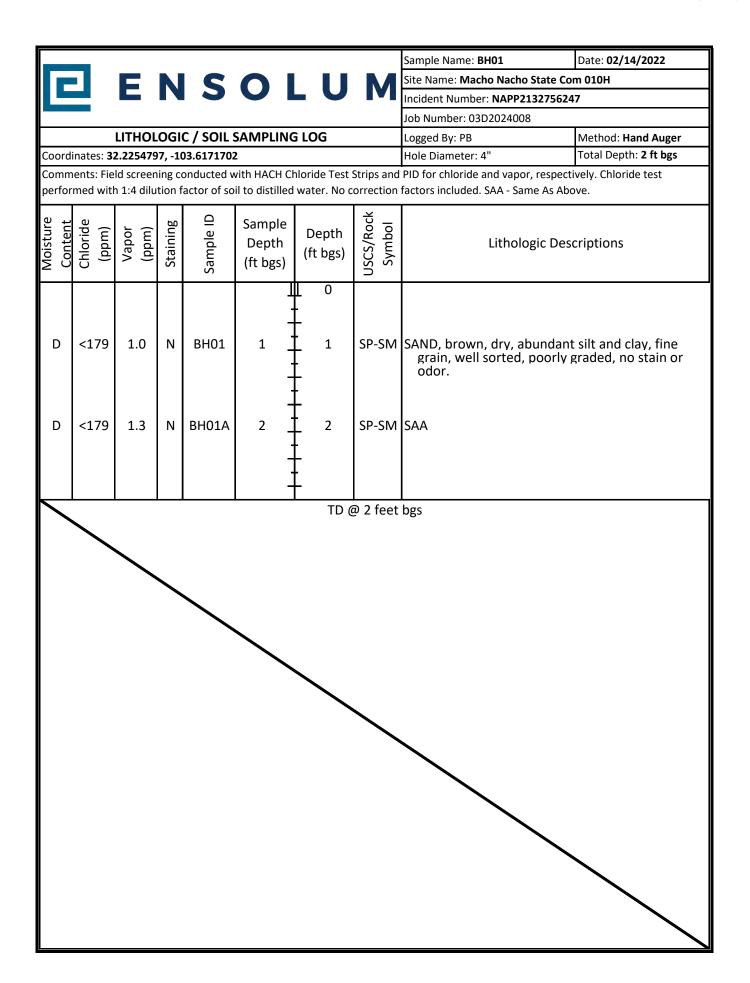
Record for this site is maintained by the USGS New Mexico Water Science Center Email questions about this site to New Mexico Water Science Center Water-Data Inquiries

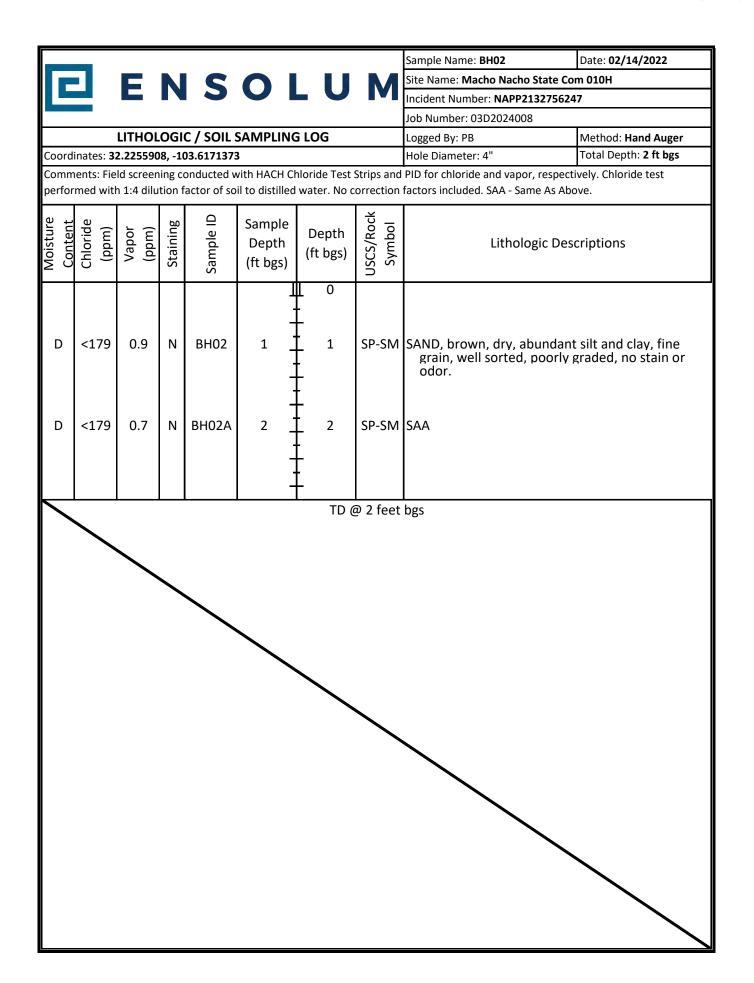


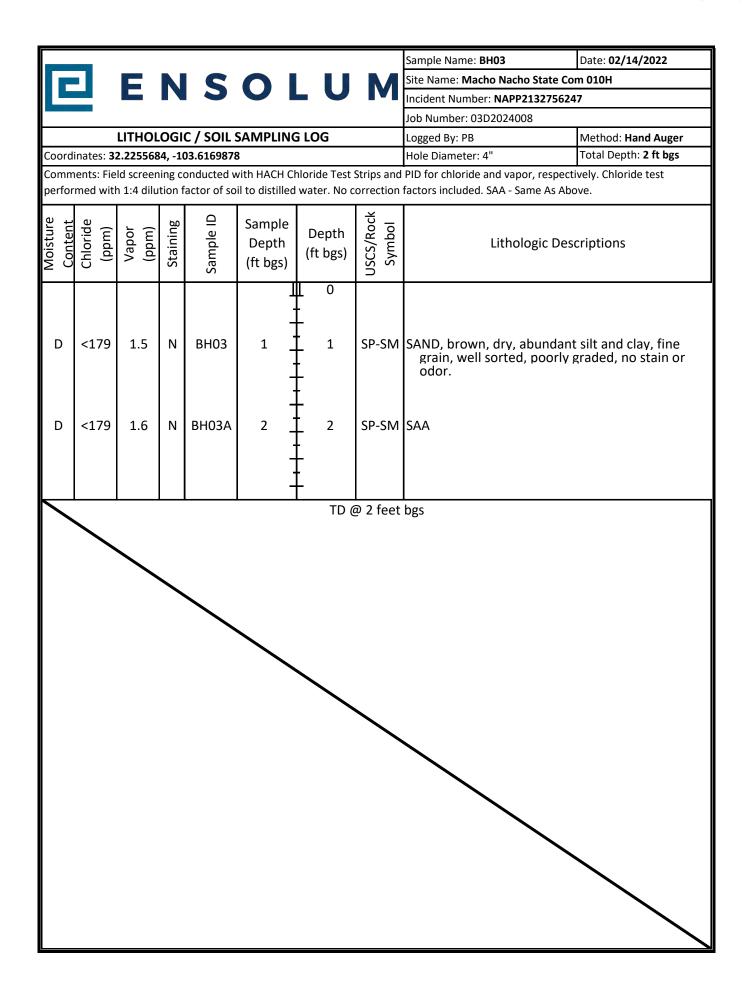


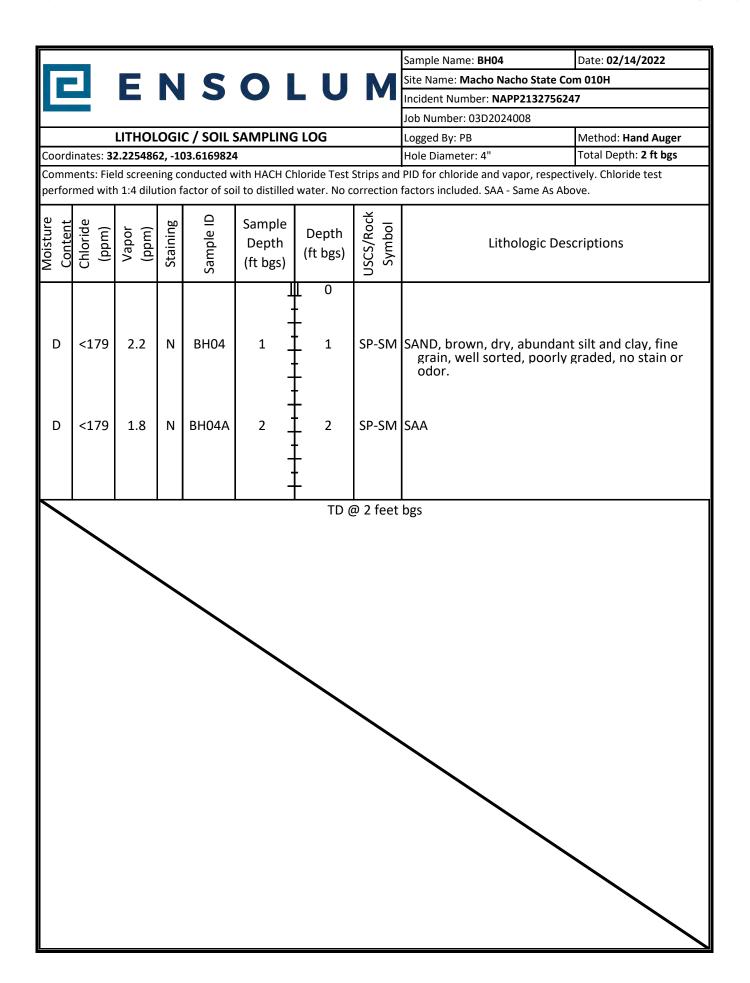
APPENDIX B

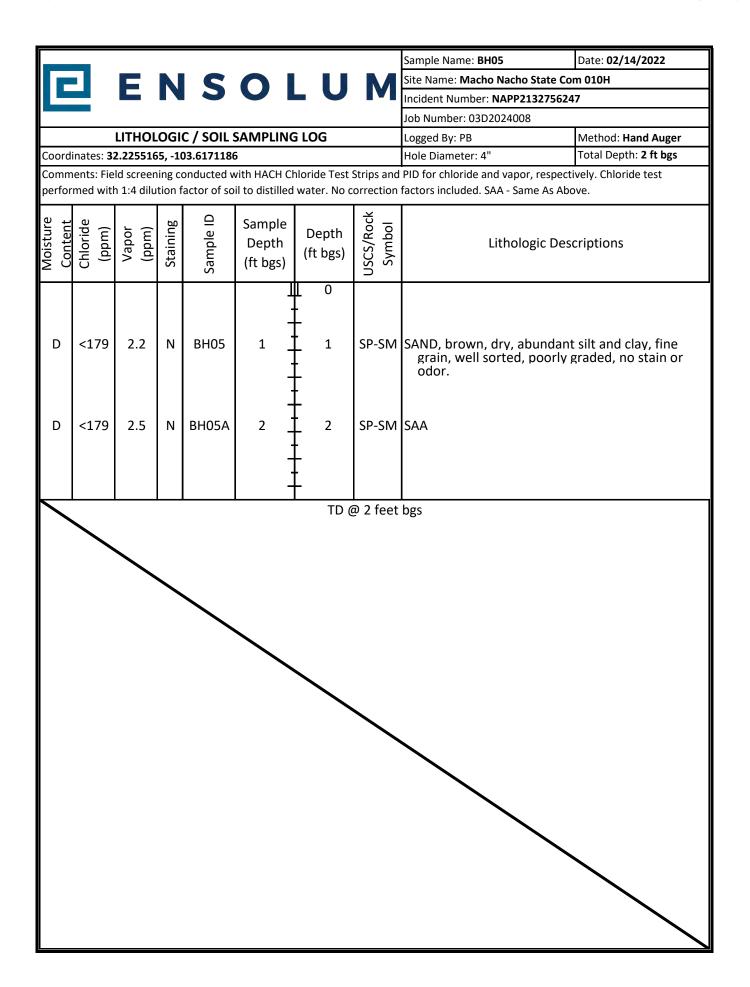
Lithologic Soil Sampling Logs













APPENDIX C

Photographic Log



Photographic Log COG Operating, LLC Macho Nacho State Com 010H Incident Number NAPP232756247





Photograph 1

Date: November 29, 2021

Date: November 29, 2021

Description: View of release extent, facing northeast.

Photograph 2

Description: View of flare area, facing northwest.



Photograph 3

Date: February 14, 2021

Photograph 4

Date: August 22, 2022

Description: View of delineation activities, facing east.

Description: View of final excavation extent, facing northwest.



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1653-1

Laboratory Sample Delivery Group: 31403720.000 Task 15.02 Client Project/Site: Macho Nacho State Com 010H

For:

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

Attn: Kalei Jennings

RAMER

Authorized for release by: 12/9/2021 10:27:32 AM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS

Review your project results through

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Released to Imaging: 9/7/2022 2:55:34 PM

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

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

Client: WSP USA Inc. Project/Site: Macho Nacho State Com 010H Laboratory Job ID: 890-1653-1 SDG: 31403720.000 Task 15.02

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1653-1 Project/Site: Macho Nacho State Com 010H

SDG: 31403720.000 Task 15.02

Qualifiers

GC VOA

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

GC Semi VOA

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

HPI C/IC

PQL

QC

RER

RPD

TEF

TEQ

TNTC

RL

PRES

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

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

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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

Presumptive

Quality Control

Case Narrative

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.000 Task 15.02

Job ID: 890-1653-1

Job ID: 890-1653-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative 890-1653-1

Receipt

The samples were received on 11/29/2021 2:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°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.

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-13650 and analytical batch 880-14305 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.

Project/Site: Macho Nacho State Com 010H

Matrix: Solid

Client: WSP USA Inc.

Job ID: 890-1653-1

SDG: 31403720.000 Task 15.02

Lab Sample ID: 890-1653-1

Client Sample ID: SS01

Date Collected: 11/29/21 10:55 Date Received: 11/29/21 14:05

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/02/21 23:31	1
Toluene	<0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/02/21 23:31	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/02/21 23:31	1
m-Xylene & p-Xylene	<0.00398	U F1	0.00398	mg/Kg		12/01/21 10:18	12/02/21 23:31	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/02/21 23:31	1
Xylenes, Total	<0.00398	U F1	0.00398	mg/Kg		12/01/21 10:18	12/02/21 23:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	126		70 - 130			12/01/21 10:18	12/02/21 23:31	1
1,4-Difluorobenzene (Surr)	100		70 - 130			12/01/21 10:18	12/02/21 23:31	1
- Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/03/21 10:44	1
Analyte Total TPH		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			12/06/21 15:44	1
Method: 8015B NM - Diesel Ran	ge Organics (D	RO) (GC)						
Analyte	go o gameo (=	(00)						
7.11d1 y to	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	Result <49.9		RL 49.9	Mg/Kg	<u>D</u>	Prepared 12/03/21 08:25	Analyzed 12/03/21 14:55	
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		U			<u>D</u>			1
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg	<u>D</u>	12/03/21 08:25	12/03/21 14:55	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9 <49.9	U U	49.9	mg/Kg	<u>D</u>	12/03/21 08:25 12/03/21 08:25	12/03/21 14:55 12/03/21 14:55	1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 <49.9 <49.9	U U	49.9 49.9 49.9	mg/Kg	<u>D</u>	12/03/21 08:25 12/03/21 08:25 12/03/21 08:25	12/03/21 14:55 12/03/21 14:55 12/03/21 14:55	1 1 1 <i>Dil Fac</i>
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.9 <49.9 <49.9 %Recovery	U U	49.9 49.9 49.9 <i>Limits</i>	mg/Kg	<u>D</u>	12/03/21 08:25 12/03/21 08:25 12/03/21 08:25 Prepared	12/03/21 14:55 12/03/21 14:55 12/03/21 14:55 Analyzed	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.9 <49.9 <49.9 <82 82	U U U Qualifier	49.9 49.9 49.9 Limits 70 - 130	mg/Kg	<u> </u>	12/03/21 08:25 12/03/21 08:25 12/03/21 08:25 Prepared 12/03/21 08:25	12/03/21 14:55 12/03/21 14:55 12/03/21 14:55 Analyzed 12/03/21 14:55	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<49.9 <49.9 <49.9 **Recovery 82 82 omatography -	U U U Qualifier	49.9 49.9 49.9 Limits 70 - 130	mg/Kg	<u>D</u>	12/03/21 08:25 12/03/21 08:25 12/03/21 08:25 Prepared 12/03/21 08:25	12/03/21 14:55 12/03/21 14:55 12/03/21 14:55 Analyzed 12/03/21 14:55	Dil Fac 1 1 Dil Fac 1 Dil Fac

Client Sample ID: SS02

Date Collected: 11/29/21 10:57 Date Received: 11/29/21 14:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) Result Qualifier Analyte RL Unit D Prepared Analyzed Dil Fac Benzene <0.00202 U 0.00202 mg/Kg 12/01/21 10:18 12/02/21 23:52 Toluene <0.00202 U 0.00202 mg/Kg 12/01/21 10:18 12/02/21 23:52 Ethylbenzene <0.00202 U 0.00202 mg/Kg 12/01/21 10:18 12/02/21 23:52 <0.00404 U 0.00404 12/02/21 23:52 m-Xylene & p-Xylene mg/Kg 12/01/21 10:18 <0.00202 U 0.00202 12/01/21 10:18 12/02/21 23:52 o-Xylene mg/Kg Xylenes, Total <0.00404 U 0.00404 12/01/21 10:18 12/02/21 23:52 mg/Kg %Recovery Qualifier Limits Prepared Surrogate Analyzed Dil Fac

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12/02/21 23:52

12/01/21 10:18

Lab Sample ID: 890-1653-2

Matrix: Solid

70 - 130

114

4-Bromofluorobenzene (Surr)

Matrix: Solid

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1

Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS02 Lab Sample ID: 890-1653-2 Date Collected: 11/29/21 10:57

Date Received: 11/29/21 14:05 Sample Depth: 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	104		70 - 130	12/01/21 10:18	12/02/21 23:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg		_	12/03/21 10:44	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)							
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	4540	50.0	mg/Kg			12/06/21 15:44	1

Method: 8015B NM - Diesel Range	Organics (DRO) (GC)						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0 U	50.0	mg/Kg		12/03/21 08:25	12/03/21 15:16	1
Diesel Range Organics (Over	4540	50.0	mg/Kg		12/03/21 08:25	12/03/21 15:16	1
C10-C28) OII Range Organics (Over C28-C36)	<50.0 U	50.0	mg/Kg		12/03/21 08:25	12/03/21 15:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	12/03/21 08:25	12/03/21 15:16	1
o-Terphenyl	77		70 - 130	12/03/21 08:25	12/03/21 15:16	1

Method: 300.0 - Anions, Ion Chron	natography - Soluble						
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47.7	5.00	ma/Ka			12/09/21 06:05	

Client Sample ID: SS03 Lab Sample ID: 890-1653-3 **Matrix: Solid**

Date Collected: 11/29/21 11:04 Date Received: 11/29/21 14:05

Sample Depth: 0.5

Method: 8021B -	. Volatila	Organic (Compounds	(GC)
Methou, ouz ib :	· voiatile	Oruanic C	JUHUUUHIUS	100

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 00:12	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 00:12	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 00:12	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/01/21 10:18	12/03/21 00:12	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 00:12	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/01/21 10:18	12/03/21 00:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130			12/01/21 10:18	12/03/21 00:12	1
1,4-Difluorobenzene (Surr)	101		70 - 130			12/01/21 10:18	12/03/21 00:12	1

Method: Total BTEX - Total BTEX Cal	culation				
1,4-Difluorobenzene (Surr)	101	70 - 130	12/01/21 10:18	12/03/21 00:12	1
	·=·				

Analyte	Resul

-	Analyto	result	Qualifici	112	Oilit	_	rrepared	Analyzou	Diriac
l	Total BTEX	<0.00400	U	0.00400	mg/Kg			12/03/21 10:44	1

Method: 8015 NM - Diesel Range (Organics (DRO) (GC)												
Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac						
Total TPH	<49.9 U	49.9	mg/Kg			12/06/21 15:44	1						

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Client: WSP USA Inc.

Job ID: 890-1653-1

Project/Site: Macho Nacho State Com 010H

SDG: 31403720 000 Task 15 02

Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS03

Date Collected: 11/29/21 11:04

Matrix: Solid

Date Received: 11/29/21 14:05

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg		12/03/21 08:25	12/03/21 15:38	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<49.9	U	49.9	mg/Kg		12/03/21 08:25	12/03/21 15:38	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		12/03/21 08:25	12/03/21 15:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			12/03/21 08:25	12/03/21 15:38	1
o-Terphenyl	74		70 - 130			12/03/21 08:25	12/03/21 15:38	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
			4.95	mg/Kg			12/09/21 06:12	

Client Sample ID: SS04

Date Collected: 11/29/21 11:01

Lab Sample ID: 890-1653-4

Matrix: Solid

Date Collected: 11/29/21 11:01 Date Received: 11/29/21 14:05

Occupie Develop 0.5

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		12/01/21 10:18	12/03/21 00:32	1
Toluene	<0.00198	U	0.00198	mg/Kg		12/01/21 10:18	12/03/21 00:32	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		12/01/21 10:18	12/03/21 00:32	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		12/01/21 10:18	12/03/21 00:32	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		12/01/21 10:18	12/03/21 00:32	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		12/01/21 10:18	12/03/21 00:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			12/01/21 10:18	12/03/21 00:32	1
1,4-Difluorobenzene (Surr)	97		70 - 130			12/01/21 10:18	12/03/21 00:32	1
Method: Total BTEX - Total BTE)	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			12/03/21 10:44	1
Total BTEX Method: 8015 NM - Diesel Range			0.00396	mg/Kg			12/03/21 10:44	1
- -	organics (DR		0.00396 RL	mg/Kg Unit	D	Prepared	12/03/21 10:44 Analyzed	
: Method: 8015 NM - Diesel Range	organics (DR	O) (GC) Qualifier			<u>D</u>	Prepared		Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH	e Organics (DR) Result <49.9	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Rang	e Organics (DR) Result <49.9 ge Organics (DI)	O) (GC) Qualifier	RL	Unit	<u>D</u>	Prepared Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Rang	e Organics (DR) Result <49.9 ge Organics (DI)	Qualifier U RO) (GC) Qualifier	RL 49.9	Unit mg/Kg			Analyzed 12/06/21 15:44	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10	e Organics (DR) Result 49.9 ge Organics (DI) Result 49.9	Qualifier U RO) (GC) Qualifier U	RL 49.9	Unit mg/Kg Unit mg/Kg		Prepared 12/03/21 08:25	Analyzed 12/06/21 15:44 Analyzed 12/03/21 16:21	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics	e Organics (DR) Result 49.9 ge Organics (DI) Result	Qualifier U RO) (GC) Qualifier U	RL 49.9	Unit mg/Kg		Prepared	Analyzed 12/06/21 15:44 Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	e Organics (DR) Result 49.9 ge Organics (DI) Result 49.9	Qualifier U RO) (GC) Qualifier U U U U	RL 49.9	Unit mg/Kg Unit mg/Kg		Prepared 12/03/21 08:25	Analyzed 12/06/21 15:44 Analyzed 12/03/21 16:21	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	e Organics (DR) Result 49.9 ge Organics (DI) Result 49.9	Qualifier U RO) (GC) Qualifier U U U U	RL 49.9 RL 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 12/03/21 08:25 12/03/21 08:25	Analyzed 12/06/21 15:44 Analyzed 12/03/21 16:21 12/03/21 16:21	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	ge Organics (DR) Result <49.9 ge Organics (DI) Result <49.9 <49.9 <49.9	Qualifier U RO) (GC) Qualifier U U U U	RL 49.9 RL 49.9 49.9 49.9	Unit mg/Kg Unit mg/Kg mg/Kg		Prepared 12/03/21 08:25 12/03/21 08:25 12/03/21 08:25	Analyzed 12/06/21 15:44 Analyzed 12/03/21 16:21 12/03/21 16:21 12/03/21 16:21	Dil Fac Dil Fac 1

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Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1

SDG: 31403720.000 Task 15.02

Client Sample ID: SS04 Lab Sample ID: 890-1653-4 Date Collected: 11/29/21 11:01

Matrix: Solid

Date Received: 11/29/21 14:05 Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chrom	atography -	Soluble												
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac						
Chloride	<5.02	U	5.02	mg/Kg			12/09/21 06:32	1						

Client Sample ID: SS05 Lab Sample ID: 890-1653-5 Matrix: Solid

Date Collected: 11/29/21 11:10

Date Received: 11/29/21 14:05

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 00:53	1
Toluene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 00:53	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 00:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/01/21 10:18	12/03/21 00:53	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 00:53	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/01/21 10:18	12/03/21 00:53	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	138	S1+	70 - 130			12/01/21 10:18	12/03/21 00:53	1
1,4-Difluorobenzene (Surr)	103		70 - 130			12/01/21 10:18	12/03/21 00:53	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/03/21 10:44	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3760		49.8	mg/Kg			12/06/21 15:44	1
Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/03/21 08:25	12/03/21 16:43	1
Diesel Range Organics (Over C10-C28)	3760		49.8	mg/Kg		12/03/21 08:25	12/03/21 16:43	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/03/21 08:25	12/03/21 16:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	72		70 - 130			12/03/21 08:25	12/03/21 16:43	1
o-Terphenyl	67	S1-	70 - 130			12/03/21 08:25	12/03/21 16:43	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Matrix: Solid

Lab Sample ID: 890-1653-6

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS06

Date Collected: 11/29/21 11:37 Date Received: 11/29/21 14:05

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 01:13	1
Toluene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 01:13	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 01:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		12/01/21 10:18	12/03/21 01:13	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		12/01/21 10:18	12/03/21 01:13	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		12/01/21 10:18	12/03/21 01:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
4-Bromofluorobenzene (Surr)	122		70 - 130			12/01/21 10:18	12/03/21 01:13	1
1,4-Difluorobenzene (Surr)	100		70 - 130			12/01/21 10:18	12/03/21 01:13	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			12/03/21 10:44	1
_					_			
_		O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte		Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 12/06/21 15:44	
Analyte Total TPH	Result <49.9	Qualifier U			<u> </u>	Prepared		
Analyte Total TPH Method: 8015B NM - Diesel Ran	Result <49.9 ge Organics (Di	Qualifier U			<u>D</u>	Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Randalyte Gasoline Range Organics	Result <49.9 ge Organics (Di	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg	<u> </u>	<u> </u>	12/06/21 15:44	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 ge Organics (Dige Result	Qualifier U RO) (GC) Qualifier U	49.9	mg/Kg	<u> </u>	Prepared	12/06/21 15:44 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10		Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9	mg/Kg Unit mg/Kg	<u> </u>	Prepared 12/03/21 08:25	12/06/21 15:44 Analyzed 12/03/21 17:05	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 12/03/21 08:25 12/03/21 08:25	12/06/21 15:44 Analyzed 12/03/21 17:05 12/03/21 17:05	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <49.9	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 12/03/21 08:25 12/03/21 08:25 12/03/21 08:25	12/06/21 15:44 Analyzed 12/03/21 17:05 12/03/21 17:05 12/03/21 17:05	Dil Face
Analyte Total TPH Method: 8015B NM - Diesel Randanalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.9	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9 Limits	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 12/03/21 08:25 12/03/21 08:25 12/03/21 08:25 Prepared	Analyzed 12/03/21 17:05 12/03/21 17:05 12/03/21 17:05 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Randanalyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <49.9	Qualifier U RO) (GC) Qualifier U U Qualifier	49.9 RL 49.9 49.9 49.9 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 12/03/21 08:25 12/03/21 08:25 12/03/21 08:25 Prepared 12/03/21 08:25	12/06/21 15:44 Analyzed 12/03/21 17:05 12/03/21 17:05 Analyzed 12/03/21 17:05	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Ran Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result <49.9	Qualifier U RO) (GC) Qualifier U U Qualifier	49.9 RL 49.9 49.9 49.9 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 12/03/21 08:25 12/03/21 08:25 12/03/21 08:25 Prepared 12/03/21 08:25	12/06/21 15:44 Analyzed 12/03/21 17:05 12/03/21 17:05 Analyzed 12/03/21 17:05	Dil Fac Dil Fac 1 Dil Fac 1 Dil Fac Dil Fac Dil Fac

Client Sample ID: SS07

Date Collected: 11/29/21 11:39

Date Received: 11/29/21 14:05

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		12/01/21 10:18	12/03/21 01:34	1
Toluene	<0.00201	U	0.00201	mg/Kg		12/01/21 10:18	12/03/21 01:34	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		12/01/21 10:18	12/03/21 01:34	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		12/01/21 10:18	12/03/21 01:34	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		12/01/21 10:18	12/03/21 01:34	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		12/01/21 10:18	12/03/21 01:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130			12/01/21 10:18	12/03/21 01:34	1

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Lab Sample ID: 890-1653-7

Matrix: Solid

Matrix: Solid

Client: WSP USA Inc.

Job ID: 890-1653-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS07 Lab Sample ID: 890-1653-7

Date Collected: 11/29/21 11:39 Date Received: 11/29/21 14:05

Sample Depth: 0.5

Method: 8021B - V	Inlatile Organic	Compounds	(GC)	(Continued)	
WELLIOU. OUZ ID - V	voiatile Organic	Compounds	GCI	(Continueu)	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	99	70 - 130	12/01/21 10:18	12/03/21 01:34	1

Method: Total	BTEX - Total	BTEX Calculation	าท

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402 U	0.00402	ma/Ka			12/03/21 10:44	1

POV (CC	· (DD	Organics	Pango	Diceol	5 NIM	2015	Mothod:	
ı	s (D	Organics	Range	- Diesel	5 NM	8015	Method:	

Analyte	Result Q	Qualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	57	49.8	mg/Kg			12/06/21 15:44	1

Mathadi 001ED	NM Discal Day	an Organian	(DBO) (CC)
Method: 8015B	nivi - Diesei Kai	ide Ordanics	IDKUI IGGI

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		12/03/21 08:25	12/03/21 17:27	1
Diesel Range Organics (Over C10-C28)	57		49.8	mg/Kg		12/03/21 08:25	12/03/21 17:27	1
Oll Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		12/03/21 08:25	12/03/21 17:27	1
0	0/ 🗖	O				D	A I I	D:/ E

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	71	70 - 130	12/03/21 08:25	12/03/21 17:27	1
o-Terphenyl	71	70 - 130	12/03/21 08:25	12/03/21 17:27	1

Analyte	Result Qua	alifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.6	4.99	mg/Kg			12/09/21 06:52	1

Client Sample ID: SS08 Lab Sample ID: 890-1653-8 Matrix: Solid

Date Collected: 11/29/21 11:42 Date Received: 11/29/21 14:05

Sample Depth: 0.5

Mothod: 9021D	Volatila Organia	Compounds (GC)
I WIELIIOU. OUZ ID '	• voiatile Organic	Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		12/01/21 10:18	12/03/21 01:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			12/01/21 10:18	12/03/21 01:54	1
1,4-Difluorobenzene (Surr)	84		70 - 130			12/01/21 10:18	12/03/21 01:54	1

Mothod:	Total RT	EY Tota	I DTEY	Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	IJ	0.00401	ma/Ka			12/03/21 10:44	1

Analyte	•	•	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH			<50.0	U	50.0	mg/Kg			12/06/21 15:44	1

Eurofins Xenco, Carlsbad

Job ID: 890-1653-1

SDG: 31403720.000 Task 15.02

Project/Site: Macho Nacho State Com 010H **Client Sample ID: SS08**

Lab Sample ID: 890-1653-8

Date Collected: 11/29/21 11:42 Date Received: 11/29/21 14:05 Matrix: Solid

Sample Depth: 0.5

Method: 8015B NM - Diesel Rang	, ,	, , ,						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		12/03/21 08:25	12/03/21 17:48	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		12/03/21 08:25	12/03/21 17:48	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/03/21 08:25	12/03/21 17:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	68	S1-	70 - 130			12/03/21 08:25	12/03/21 17:48	1
o-Terphenyl	66	S1-	70 - 130			12/03/21 08:25	12/03/21 17:48	1
-								
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Method: 300.0 - Anions, Ion Chro Analyte	0.,	Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: SS09 Lab Sample ID: 890-1653-9 Matrix: Solid

Date Collected: 11/29/21 11:44

Date Received: 11/29/21 14:05

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC) Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Benzene <0.00202 U 0.00202 12/01/21 10:18 12/03/21 02:14 mg/Kg Toluene <0.00202 U 0.00202 12/01/21 10:18 12/03/21 02:14 mg/Kg Ethylbenzene <0.00202 U 0.00202 mg/Kg 12/01/21 10:18 12/03/21 02:14 m-Xylene & p-Xylene <0.00403 U 0.00403 mg/Kg 12/01/21 10:18 12/03/21 02:14 o-Xylene <0.00202 U 0.00202 12/01/21 10:18 12/03/21 02:14 mg/Kg Xylenes, Total <0.00403 U 0.00403 mg/Kg 12/01/21 10:18 12/03/21 02:14

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130	12/01/21 10:18	12/03/21 02:14	1
1,4-Difluorobenzene (Surr)	95		70 - 130	12/01/21 10:18	12/03/21 02:14	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403	mg/Kg			12/03/21 10:44	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			12/06/21 15:44	1

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

l	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		12/03/21 08:25	12/03/21 18:09	1
	Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		12/03/21 08:25	12/03/21 18:09	1
	Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		12/03/21 08:25	12/03/21 18:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	77		70 - 130	12/03/21 08:25	12/03/21 18:09	1
o-Terphenyl	75		70 - 130	12/03/21 08:25	12/03/21 18:09	1

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Client Sample Results

Client: WSP USA Inc.

Job ID: 890-1653-1

Project/Site: Macha Nepha State Com 010H

SDC: 21403720 000 Took 15 03

Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS09

Lab Sample ID: 890-1653-9

Date Collected: 11/29/21 11:44

Date Received: 11/29/21 14:05

Matrix: Solid

Sample Depth: 0.5

Method: 300.0 - Anions, Ion Chrom	natography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.96	U F1	4.96	mg/Kg			12/09/21 07:05	1

5

6

9

11

13

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1653-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
90-1653-1	SS01	126	100	
90-1653-1 MS	SS01	149 S1+	81	
90-1653-1 MSD	SS01	119	102	
90-1653-2	SS02	114	104	
90-1653-3	SS03	121	101	
90-1653-4	SS04	117	97	
90-1653-5	SS05	138 S1+	103	
90-1653-6	SS06	122	100	
90-1653-7	SS07	124	99	
90-1653-8	SS08	114	84	
90-1653-9	SS09	113	95	
CS 880-13446/1-A	Lab Control Sample	112	99	
CSD 880-13446/2-A	Lab Control Sample Dup	111	96	
MB 880-13446/5-A	Method Blank	122	99	
/IB 880-13455/5-A	Method Blank	123	99	
Surrogate Legend				
BFB = 4-Bromofluorober	nzene (Surr)			

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1001	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
390-1653-1	SS01	82	82	
390-1653-2	SS02	81	77	
390-1653-3	SS03	78	74	
390-1653-4	SS04	43 S1-	77	
390-1653-5	SS05	72	67 S1-	
390-1653-6	SS06	76	72	
390-1653-7	SS07	71	71	
390-1653-8	SS08	68 S1-	66 S1-	
390-1653-9	SS09	77	75	
890-1658-A-1-D MS	Matrix Spike	71	65 S1-	
890-1658-A-1-E MSD	Matrix Spike Duplicate	72	65 S1-	
CS 880-13833/2-A	Lab Control Sample	64 S1-	61 S1-	
CSD 880-13833/3-A	Lab Control Sample Dup	69 S1-	68 S1-	
	Method Blank	97	97	

OTPH = o-Terphenyl

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Client: WSP USA Inc. Job ID: 890-1653-1 Project/Site: Macho Nacho State Com 010H

SDG: 31403720.000 Task 15.02

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-13446/5-A

Lab Sample ID: LCS 880-13446/1-A

Matrix: Solid

Analysis Batch: 13722

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13446

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/02/21 23:02	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/02/21 23:02	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/02/21 23:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/01/21 10:18	12/02/21 23:02	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/01/21 10:18	12/02/21 23:02	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/01/21 10:18	12/02/21 23:02	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Pre	epared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	12/01/	/21 10:18	12/02/21 23:02	1
1,4-Difluorobenzene (Surr)	99		70 - 130	12/01/	/21 10:18	12/02/21 23:02	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13446

Matrix: Solid Analysis Batch: 13722

	Бріке	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.09337		mg/Kg		93	70 - 130	
Toluene	0.100	0.09366		mg/Kg		94	70 - 130	
Ethylbenzene	0.100	0.09097		mg/Kg		91	70 - 130	
m-Xylene & p-Xylene	0.200	0.1803		mg/Kg		90	70 - 130	
o-Xylene	0.100	0.09086		mg/Kg		91	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	112	70 - 130
1,4-Difluorobenzene (Surr)	99	70 - 130

Lab Sample ID: LCSD 880-13446/2-A **Client Sample ID: Lab Control Sample Dup**

Matrix: Solid

Analysis Batch: 13722

Prep Type: Total/NA Prep Batch: 13446

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08752		mg/Kg		88	70 - 130	6	35
Toluene	0.100	0.09320		mg/Kg		93	70 - 130	0	35
Ethylbenzene	0.100	0.09679		mg/Kg		97	70 - 130	6	35
m-Xylene & p-Xylene	0.200	0.1908		mg/Kg		95	70 - 130	6	35
o-Xylene	0.100	0.09434		mg/Kg		94	70 - 130	4	35

LCSD LCSD

Surrogate	%Recovery C	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	111		70 - 130		
1.4-Difluorobenzene (Surr)	96		70 - 130		

Lab Sample ID: 890-1653-1 MS

Matrix: Solid

Analysis Batch: 13722

Client Sample ID: SS01 Prep Type: Total/NA

Prep Batch: 13446

_	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00199	U	0.100	0.08598		mg/Kg	_	85	70 - 130	
Toluene	<0.00199	U	0.100	0.07857		mg/Kg		78	70 - 130	

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Client Sample ID: SS01

70 - 130

70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1 SDG: 31403720.000 Task 15.02 Project/Site: Macho Nacho State Com 010H

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

<0.00398 UF1

<0.00199 U

Lab Sample ID: 890-1653-1 MS **Matrix: Solid**

m-Xylene & p-Xylene

o-Xylene

Matrix: Solid									Prep	Type: Total/NA
Analysis Batch: 13722									Pre	Batch: 13446
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00199	U	0.100	0.08168		mg/Kg		81	70 - 130	

0.1022 F1

0.08337

mg/Kg

mg/Kg

0.201

0.100

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	149	S1+	70 - 130
1,4-Difluorobenzene (Surr)	81		70 - 130

Lab Sample ID: 890-1653-1 MSD

Matrix: Solid

Analysis Batch: 13722

Client Sample ID: SS01 Prep Type: Total/NA Prep Batch: 13446

81

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.100	0.07355		mg/Kg		73	70 - 130	16	35
Toluene	< 0.00199	U	0.100	0.07570		mg/Kg		76	70 - 130	4	35
Ethylbenzene	<0.00199	U	0.100	0.07810		mg/Kg		78	70 - 130	4	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.09868	F1	mg/Kg		48	70 - 130	3	35
o-Xylene	<0.00199	U	0.100	0.07790		mg/Kg		76	70 - 130	7	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	119		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-13455/5-A

Matrix: Solid

Analysis Batch: 13722

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 13455

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		12/01/21 11:07	12/02/21 11:28	1
Toluene	<0.00200	U	0.00200	mg/Kg		12/01/21 11:07	12/02/21 11:28	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		12/01/21 11:07	12/02/21 11:28	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		12/01/21 11:07	12/02/21 11:28	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		12/01/21 11:07	12/02/21 11:28	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		12/01/21 11:07	12/02/21 11:28	1

	IND	IVID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130	12/01/21 11:07	12/02/21 11:28	1
1,4-Difluorobenzene (Surr)	99		70 - 130	12/01/21 11:07	12/02/21 11:28	1

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

MR MR

Lab Sample ID: MB 880-13833/1-A

Matrix: Solid

Analysis Batch: 13850

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 13833

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		12/03/21 08:25	12/03/21 10:36	1	
(GRO)-C6-C10									

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-1653-1 SDG: 31403720.000 Task 15.02 Project/Site: Macho Nacho State Com 010H

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

Lab Sample ID: MB 880-13833/1-A

Matrix: Solid

Analysis Batch: 13850

Client Sample ID:	Method Blank
Prep	Type: Total/NA
Pre	p Batch: 13833

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 12/03/21 08:25 12/03/21 10:36 Diesel Range Organics (Over mg/Kg C10-C28) OII Range Organics (Over C28-C36) 50.0 12/03/21 08:25 12/03/21 10:36 <50.0 U mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130	12/03/21 08:25	12/03/21 10:36	1
o-Terphenyl	97		70 - 130	12/03/21 08:25	12/03/21 10:36	1

Lab Sample ID: LCS 880-13833/2-A **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 13850

-	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	839.3		mg/Kg		84	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	712.0		mg/Kg		71	70 - 130	
C10-C28)								

LCS LCS %Recovery Qualifier Limits Surrogate 1-Chlorooctane 64 S1-70 - 130 o-Terphenyl 61 S1-70 - 130

Lab Sample ID: LCSD 880-13833/3-A

Matrix: Solid

Analysis Batch: 13850

	Spil	te LCSI	LCSD				%Rec.		RPD
Analyte	Adde	ed Resu	lt Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics		00 831.2	2	mg/Kg		83	70 - 130	1	20
(GRO)-C6-C10									
Diesel Range Organics (Over	100	00 800.	1	mg/Kg		80	70 - 130	12	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	69	S1-	70 - 130
o-Terphenyl	68	S1-	70 - 130

Analysis Batch: 13850

Lab Sample ID: 890-1658-A-1-D MS	Client Sample ID: Matrix Spike
Matrix: Solid	Prep Type: Total/NA

Prep Batch: 13833

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	821.0		mg/Kg		82	70 - 130	
Diesel Range Organics (Over C10-C28)	<50.0	U	997	827.5		mg/Kg		83	70 - 130	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	65	S1-	70 - 130

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Prep Batch: 13833

Prep Type: Total/NA

Prep Batch: 13833

Client Sample ID: Lab Control Sample Dup

Job ID: 890-1653-1

SDG: 31403720.000 Task 15.02

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

Lab Sample ID: 890-1658-A-1-E MSD

Project/Site: Macho Nacho State Com 010H

Matrix: Solid

Analysis Batch: 13850

Client: WSP USA Inc.

Client Sample ID: Matrix Spike Duplicate

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Client Sample ID: SS09

Client Sample ID: SS09

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Total/NA

Prep Batch: 13833 RPD

Sample Sample Spike MSD MSD Result Qualifier RPD Limit Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics <50.0 U 999 830.7 mg/Kg 83 70 - 130 20 (GRO)-C6-C10 999 837.0 Diesel Range Organics (Over <50.0 U mg/Kg 84 70 - 130 C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	72		70 - 130
o-Terphenyl	65	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-13650/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 14305

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			12/09/21 05:12	1

Lab Sample ID: LCS 880-13650/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 14305

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	268.2		mg/Kg		107	90 - 110	

Lab Sample ID: LCSD 880-13650/3-A

Matrix: Solid

Analysis Batch: 14305

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	250	268.3		mg/Kg	_	107	90 - 110	0	20

Lab Sample ID: 890-1653-9 MS

Matrix: Solid

Analysis Batch: 14305

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	<4 96	II F1	248	284.4	F1	ma/Ka		115	90 110	

Lab Sample ID: 890-1653-9 MSD

Matrix: Solid

Analysis Batch: 14305											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	<4 96	U F1	248	286.7	F1	ma/Ka		116	90 110		20

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Client: WSP USA Inc.

Job ID: 890-1653-1

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.000 Task 15.02

GC VOA

Prep Batch: 13446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	5035	
890-1653-2	SS02	Total/NA	Solid	5035	
890-1653-3	SS03	Total/NA	Solid	5035	
890-1653-4	SS04	Total/NA	Solid	5035	
890-1653-5	SS05	Total/NA	Solid	5035	
890-1653-6	SS06	Total/NA	Solid	5035	
890-1653-7	SS07	Total/NA	Solid	5035	
890-1653-8	SS08	Total/NA	Solid	5035	
890-1653-9	SS09	Total/NA	Solid	5035	
MB 880-13446/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13446/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13446/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1653-1 MS	SS01	Total/NA	Solid	5035	
890-1653-1 MSD	SS01	Total/NA	Solid	5035	

Prep Batch: 13455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13455/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 13722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8021B	13446
890-1653-2	SS02	Total/NA	Solid	8021B	13446
890-1653-3	SS03	Total/NA	Solid	8021B	13446
890-1653-4	SS04	Total/NA	Solid	8021B	13446
890-1653-5	SS05	Total/NA	Solid	8021B	13446
890-1653-6	SS06	Total/NA	Solid	8021B	13446
890-1653-7	SS07	Total/NA	Solid	8021B	13446
890-1653-8	SS08	Total/NA	Solid	8021B	13446
890-1653-9	SS09	Total/NA	Solid	8021B	13446
MB 880-13446/5-A	Method Blank	Total/NA	Solid	8021B	13446
MB 880-13455/5-A	Method Blank	Total/NA	Solid	8021B	13455
LCS 880-13446/1-A	Lab Control Sample	Total/NA	Solid	8021B	13446
LCSD 880-13446/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13446
890-1653-1 MS	SS01	Total/NA	Solid	8021B	13446
890-1653-1 MSD	SS01	Total/NA	Solid	8021B	13446

Analysis Batch: 13868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	Total BTEX	
890-1653-2	SS02	Total/NA	Solid	Total BTEX	
890-1653-3	SS03	Total/NA	Solid	Total BTEX	
890-1653-4	SS04	Total/NA	Solid	Total BTEX	
890-1653-5	SS05	Total/NA	Solid	Total BTEX	
890-1653-6	SS06	Total/NA	Solid	Total BTEX	
890-1653-7	SS07	Total/NA	Solid	Total BTEX	
890-1653-8	SS08	Total/NA	Solid	Total BTEX	
890-1653-9	SS09	Total/NA	Solid	Total BTEX	

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Client: WSP USA Inc.

Job ID: 890-1653-1

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.000 Task 15.02

GC Semi VOA

Prep Batch: 13833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8015NM Prep	
890-1653-2	SS02	Total/NA	Solid	8015NM Prep	
890-1653-3	SS03	Total/NA	Solid	8015NM Prep	
890-1653-4	SS04	Total/NA	Solid	8015NM Prep	
890-1653-5	SS05	Total/NA	Solid	8015NM Prep	
890-1653-6	SS06	Total/NA	Solid	8015NM Prep	
890-1653-7	SS07	Total/NA	Solid	8015NM Prep	
890-1653-8	SS08	Total/NA	Solid	8015NM Prep	
890-1653-9	SS09	Total/NA	Solid	8015NM Prep	
MB 880-13833/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13833/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13833/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1658-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1658-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8015B NM	13833
890-1653-2	SS02	Total/NA	Solid	8015B NM	13833
890-1653-3	SS03	Total/NA	Solid	8015B NM	13833
890-1653-4	SS04	Total/NA	Solid	8015B NM	13833
890-1653-5	SS05	Total/NA	Solid	8015B NM	13833
890-1653-6	SS06	Total/NA	Solid	8015B NM	13833
890-1653-7	SS07	Total/NA	Solid	8015B NM	13833
890-1653-8	SS08	Total/NA	Solid	8015B NM	13833
890-1653-9	SS09	Total/NA	Solid	8015B NM	13833
MB 880-13833/1-A	Method Blank	Total/NA	Solid	8015B NM	13833
LCS 880-13833/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13833
LCSD 880-13833/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13833
890-1658-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	13833
890-1658-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	13833

Analysis Batch: 14112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Total/NA	Solid	8015 NM	
890-1653-2	SS02	Total/NA	Solid	8015 NM	
890-1653-3	SS03	Total/NA	Solid	8015 NM	
890-1653-4	SS04	Total/NA	Solid	8015 NM	
890-1653-5	SS05	Total/NA	Solid	8015 NM	
890-1653-6	SS06	Total/NA	Solid	8015 NM	
890-1653-7	SS07	Total/NA	Solid	8015 NM	
890-1653-8	SS08	Total/NA	Solid	8015 NM	
890-1653-9	SS09	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 13650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Soluble	Solid	DI Leach	
890-1653-2	SS02	Soluble	Solid	DI Leach	
890-1653-3	SS03	Soluble	Solid	DI Leach	

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Client: WSP USA Inc.

Job ID: 890-1653-1

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.000 Task 15.02

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HPLC/IC (Continued)

Leach Batch: 13650 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-4	SS04	Soluble	Solid	DI Leach	
890-1653-5	SS05	Soluble	Solid	DI Leach	
890-1653-6	SS06	Soluble	Solid	DI Leach	
890-1653-7	SS07	Soluble	Solid	DI Leach	
890-1653-8	SS08	Soluble	Solid	DI Leach	
890-1653-9	SS09	Soluble	Solid	DI Leach	
MB 880-13650/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13650/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13650/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1653-9 MS	SS09	Soluble	Solid	DI Leach	
890-1653-9 MSD	SS09	Soluble	Solid	DI Leach	

Analysis Batch: 14305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1653-1	SS01	Soluble	Solid	300.0	13650
890-1653-2	SS02	Soluble	Solid	300.0	13650
890-1653-3	SS03	Soluble	Solid	300.0	13650
890-1653-4	SS04	Soluble	Solid	300.0	13650
890-1653-5	SS05	Soluble	Solid	300.0	13650
890-1653-6	SS06	Soluble	Solid	300.0	13650
890-1653-7	SS07	Soluble	Solid	300.0	13650
890-1653-8	SS08	Soluble	Solid	300.0	13650
890-1653-9	SS09	Soluble	Solid	300.0	13650
MB 880-13650/1-A	Method Blank	Soluble	Solid	300.0	13650
LCS 880-13650/2-A	Lab Control Sample	Soluble	Solid	300.0	13650
LCSD 880-13650/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13650
890-1653-9 MS	SS09	Soluble	Solid	300.0	13650
890-1653-9 MSD	SS09	Soluble	Solid	300.0	13650

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Job ID: 890-1653-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.000 Task 15.02

Client Sample ID: SS01

Date Collected: 11/29/21 10:55 Date Received: 11/29/21 14:05

Lab Sample ID: 890-1653-1

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/02/21 23:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 14:55	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 05:59	CH	XEN MID

Client Sample ID: SS02 Lab Sample ID: 890-1653-2

Date Collected: 11/29/21 10:57

Date Received: 11/29/21 14:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/02/21 23:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 15:16	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:05	CH	XEN MID

Client Sample ID: SS03 Lab Sample ID: 890-1653-3

Date Collected: 11/29/21 11:04 Date Received: 11/29/21 14:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 00:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 15:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:12	CH	XEN MID

Client Sample ID: SS04 Lab Sample ID: 890-1653-4

Date Collected: 11/29/21 11:01 Date Received: 11/29/21 14:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 00:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID

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Matrix: Solid

Matrix: Solid

Matrix: Solid

Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1

SDG: 31403720.000 Task 15.02

Client Sample ID: SS04

Lab Sample ID: 890-1653-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Date Collected: 11/29/21 11:01 Date Received: 11/29/21 14:05

	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			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 16:21	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:32	CH	XEN MID

Client Sample ID: SS05 Lab Sample ID: 890-1653-5

Date Collected: 11/29/21 11:10

Matrix: Solid

Date Received: 11/29/21 14:05

	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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 00:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 16:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:39	CH	XEN MID

Client Sample ID: SS06 Lab Sample ID: 890-1653-6

Date Collected: 11/29/21 11:37

Date Received: 11/29/21 14:05

	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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 01:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 17:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:45	CH	XEN MID

Client Sample ID: SS07 Lab Sample ID: 890-1653-7

Date Collected: 11/29/21 11:39 Date Received: 11/29/21 14:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 01:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.04 g	10 mL	13833 13850	12/03/21 08:25 12/03/21 17:27	DM AJ	XEN MID XEN MID

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Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1 SDG: 31403720.000 Task 15.02

Client Sample ID: SS07

Date Collected: 11/29/21 11:39 Date Received: 11/29/21 14:05 Lab Sample ID: 890-1653-7

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:52	CH	XEN MID

Client Sample ID: SS08 Lab Sample ID: 890-1653-8

Date Collected: 11/29/21 11:42 Date Received: 11/29/21 14:05

Matrix: Solid

	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	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 01:54	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 17:48	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 06:59	CH	XEN MID

Client Sample ID: SS09 Lab Sample ID: 890-1653-9

Date Collected: 11/29/21 11:44

Matrix: Solid

Date Received: 11/29/21 14:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	13446	12/01/21 10:18	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13722	12/03/21 02:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			13868	12/03/21 10:44	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	13833	12/03/21 08:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13850	12/03/21 18:09	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	13650	12/01/21 11:27	CA	XEN MID
Soluble	Analysis	300.0		1			14305	12/09/21 07:05	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Carlsbad

Accreditation/Certification Summary

Job ID: 890-1653-1 Client: WSP USA Inc. Project/Site: Macho Nacho State Com 010H

SDG: 31403720.000 Task 15.02

Laboratory: Eurofins Xenco, Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes the agency does not of		t the laboratory is not certifi	ed by the governing authority. This list ma	ay include analytes fo
Analysis Mathed	Prep Method	Matrix	Analyte	
Analysis Method				
8015 NM		Solid	Total TPH	

Method Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1

SDG: 31403720.000 Task 15.02

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Carlsbad

Sample Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

Job ID: 890-1653-1

SDG: 31403720.000 Task 15.02

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1653-1	SS01	Solid	11/29/21 10:55	11/29/21 14:05	0.5
890-1653-2	SS02	Solid	11/29/21 10:57	11/29/21 14:05	0.5
890-1653-3	SS03	Solid	11/29/21 11:04	11/29/21 14:05	0.5
890-1653-4	SS04	Solid	11/29/21 11:01	11/29/21 14:05	0.5
890-1653-5	SS05	Solid	11/29/21 11:10	11/29/21 14:05	0.5
890-1653-6	SS06	Solid	11/29/21 11:37	11/29/21 14:05	0.5
890-1653-7	SS07	Solid	11/29/21 11:39	11/29/21 14:05	0.5
890-1653-8	SS08	Solid	11/29/21 11:42	11/29/21 14:05	0.5
890-1653-9	SS09	Solid	11/29/21 11:44	11/29/21 14:05	0.5

Eurofins Xenco, Carlsbad

💸 eurofins

	Relinquished by Date/Time	Relinquished by Date/Time:	Relinquished by UV UV (1-29-7) Date/Time	linquished by	Deliverable Requested Other (specify) Primar	Unconfirmed	Possible Hazard Identification	Note. Since laboratory accreditations are subject to change, Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided. Any changes to accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.	SS09 (890-1653-9) 11/	SS08 (890-1653-8) 11/	SS07 (890-1653-7) 11/	SS06 (890-1653-6)	SS05 (890-1653-5)	SS04 (890-1653-4)	SS03 (890-1653-3)	SS02 (890-1653-2)	SS01 (890-1653-1) 11/		Sample Identification - Client ID (Lab ID)	SIGN.	Project Name Project #: 88000048		Phone PO #- 432-704-5440(Tel)	State, Zip. TX 79701	City Midland TAT Re	1211 W Flonda Ave 12/3/2021	s Xenco	Client Contact: Phone: Shipping/Receiving	ormation (Sub Contract Lab)	1089 N Canal St. Carlsbad NM 88220 Phone 575-988-3199 Fax: 575-988-3199
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				Date	ole Rank. 2		9	method anal	11 44 Mountain	11 42 Mountain	11 39 Mountain	11 37 Mountain	11 10 Mountain	11 01 Mountain	11 04 Mountain	10 57 Mountain	10 55 Mountain	X	Sample Time						s)					hain c
								lyte & accredit shipped back o said complic			Name							Preserva	Sample Type (C=comp, G=grab)											of Cus
	Company	Company	Company					ation complian to the Eurofins	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Solid	Preservation Code:	Matrix {v=water S=solid, O=waste/oil, BT=Tissue, A=Air									E-Mail jessic	Lab PM Krame	Chain of Custody Record
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Conte	Rece	Rece	Recei		Special Instructions/QC	Return To Client		out sub	×	×	×	×	×	×	×	×	×	<u> </u>	8015MOD_NM/				ТРН				Accreditations Required (See note) NELAP - Louisiana NELAP	ımer@	essica	ord
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		子	Ŕ.			may be assessed it samples are retained longer than 1 Disposal By Lab Archive For		tody If the laboral			entering plants								Special In	Other	EDA EDA	ice Di Water	MeOH Amchlor	Nitric Acid NaHSO4	A - HCL B NaOH C Zn Acetate	Preservation Codes	Job#: 890-1653-1	Page [.] Page 1 of 1	COC No 890-527 1	💸 eurofins
	Company	Company	Company			than 1 month) Months		tory does not currently rught to Eurofins Xenco LLC			Table Manager								Special Instructions/Note:		W pH 4-5 Z other (specify)	U Acetone U MCAA	R Na2S2O3 S H2SO4 T TSB Dodecahudrate	P - Na2O4S Q Na2SO3	M Hexane N None	ies				Environment Testing America

Ver 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1653-1

SDG Number: 31403720.000 Task 15.02

List Source: Eurofins Xenco, Carlsbad

Login Number: 1653 List Number: 1

Creator: Olivas, Nathaniel

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

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1653-1

SDG Number: 31403720.000 Task 15.02

List Source: Eurofins Xenco, Midland

List Creation: 11/30/21 11:54 AM

Creator: Kramer, Jessica

Login Number: 1653

List Number: 2

<6mm (1/4").

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	N/A	

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1956-1

Laboratory Sample Delivery Group: 31403720.00 Client Project/Site: Macho Nacho State Com 010h

For:

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

Attn: Kalei Jennings

JURAMER

Authorized for release by: 2/25/2022 2:58:06 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

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Released to Imaging: 9/7/2022 2:55:34 PM

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.

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Client: WSP USA Inc.

Laboratory Job ID: 890-1956-1

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1956-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

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

HPLC/IC

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit **CNF** Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

Detection Limit (DoD/DOE) DL

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 Method Quantitation Limit MQL

NC Not Calculated

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

NFG 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)

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

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: WSP USA Inc.

Job ID: 890-1956-1 SDG: 31403720.00 Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-1956-1

Receipt

The sample was received on 2/16/2022 11:06 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (880-11400-A-1-F 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.

HPLC/IC

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

Matrix: Solid

Lab Sample ID: 890-1956-1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1956-1 Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: SS07

Date Collected: 02/14/22 12:10 Date Received: 02/16/22 11:06

Sample Depth: 0.5

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 06:05	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 06:05	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 06:05	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/24/22 09:39	02/25/22 06:05	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 06:05	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/24/22 09:39	02/25/22 06:05	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130			02/24/22 09:39	02/25/22 06:05	1
1,4-Difluorobenzene (Surr)	99		70 - 130			02/24/22 09:39	02/25/22 06:05	1
- Method: Total BTEX - Total BTE)	K Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/25/22 13:43	1
Analyte		Qualifier	RL	Unit ma/Ka	<u>D</u>	Prepared	Analyzed	Dil Fac
Total TPH	212		49.9	mg/Kg			02/21/22 19:16	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared		
· ······ · · · · · · · · · · · · · · ·				O.m.	U	riepaieu	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U	49.9	mg/Kg	=	02/17/22 11:56	02/19/22 21:21	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		Ū			=	<u>.</u>		
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9		49.9	mg/Kg		02/17/22 11:56	02/19/22 21:21	1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 212	U	49.9	mg/Kg	=	02/17/22 11:56 02/17/22 11:56	02/19/22 21:21	1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<49.9 212 <49.9	U	49.9 49.9 49.9	mg/Kg		02/17/22 11:56 02/17/22 11:56 02/17/22 11:56	02/19/22 21:21 02/19/22 21:21 02/19/22 21:21	1 1 1 Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 212 <49.9 %Recovery	U	49.9 49.9 49.9 <i>Limits</i>	mg/Kg		02/17/22 11:56 02/17/22 11:56 02/17/22 11:56 02/17/22 11:56 Prepared	02/19/22 21:21 02/19/22 21:21 02/19/22 21:21 Analyzed	1 1 1 Dil Fac
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<49.9 212 <49.9 %Recovery 73 72	U Q ualifier	49.9 49.9 49.9 Limits 70 - 130	mg/Kg	<u>-</u>	02/17/22 11:56 02/17/22 11:56 02/17/22 11:56 02/17/22 11:56 Prepared 02/17/22 11:56	02/19/22 21:21 02/19/22 21:21 02/19/22 21:21 Analyzed 02/19/22 21:21	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<49.9 212 <49.9 %Recovery 73 72 omatography -	U Q ualifier	49.9 49.9 49.9 Limits 70 - 130	mg/Kg	<u>b</u>	02/17/22 11:56 02/17/22 11:56 02/17/22 11:56 02/17/22 11:56 Prepared 02/17/22 11:56	02/19/22 21:21 02/19/22 21:21 02/19/22 21:21 Analyzed 02/19/22 21:21	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Surrogate Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-11351-A-1-C MS	Matrix Spike	101	99	
880-11351-A-1-D MSD	Matrix Spike Duplicate	104	100	
890-1956-1	SS07	102	99	
LCS 880-20192/1-A	Lab Control Sample	102	99	
LCSD 880-20192/2-A	Lab Control Sample Dup	104	101	
MB 880-19723/5-A	Method Blank	99	95	
MB 880-20192/5-A	Method Blank	98	94	

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

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-11400-A-1-E MS	Matrix Spike	76	76	
880-11400-A-1-F MSD	Matrix Spike Duplicate	69 S1-	69 S1-	
890-1956-1	SS07	73	72	
Surrogate Legend				
1CO = 1-Chlorooctane				

OTPH = o-Terphenyl

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Re
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-19690/2-A	Lab Control Sample	100	108	
LCSD 880-19690/3-A	Lab Control Sample Dup	105	112	
MB 880-19690/1-A	Method Blank	88	92	
Surrogate Legend				
1CO = 1-Chlorooctane				
OTPH = o-Terphenyl				

Client: WSP USA Inc. Job ID: 890-1956-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19723

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 07:45	02/24/22 11:10	1

MB MB

Surrogate	%Recovery Qualifier	r Limits
4-Bromofluorobenzene (Surr)	99	70 - 130
1 4-Difluorobenzene (Surr)	95	70 130

Dil Fac Prepared Analyzed 02/24/22 07:45 02/24/22 11:10 02/24/22 07:45 02/24/22 11:10

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20192

Lab Sample ID: MB 880-20192/5-A **Matrix: Solid**

Analysis Batch: 20184

	MB	MR						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/24/22 22:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 09:39	02/24/22 22:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/24/22 22:54	1
Xylenes, Total	< 0.00400	U	0.00400	mg/Kg		02/24/22 09:39	02/24/22 22:54	1

MB MB

Surrogate	%Recovery (Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	02/24/22 09	39 02/24/22 22:54	1
1,4-Difluorobenzene (Surr)	94		70 - 130	02/24/22 09	39 02/24/22 22:54	1

Lab Sample ID: LCS 880-20192/1-A

Matrix: Solid

Analysis Batch: 20184

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

Client Sample ID: Lab Control Sample Dup

Prep Batch: 20192

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.1094		mg/Kg		109	70 - 130	
Toluene	0.100	0.1080		mg/Kg		108	70 - 130	
Ethylbenzene	0.100	0.1082		mg/Kg		108	70 - 130	
m-Xylene & p-Xylene	0.200	0.2226		mg/Kg		111	70 - 130	
o-Xylene	0.100	0.1088		mg/Kg		109	70 - 130	

LCS LCS

Surrogate	%Recovery Qualifi	er Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1.4-Difluorobenzene (Surr)	99	70 - 130

Lab Sample ID: LCSD 880-20192/2-A

Matrix: Solid

Analysis Batch: 20184

<u> </u>		A / =		_
		Prep Batcl	1: 2019	2
		Prep Type:	Total/N	Α
	•			•

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Benzene 0.100 0.1056 mg/Kg 106 70 - 130

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1956-1 Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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

Lab Sample ID: LCSD 880-20192/2-A

Matrix: Solid Analysis Batch: 20184 Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA Prep Batch: 20192

Spike LCSD LCSD %Rec. **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Toluene 0.100 0.1044 104 70 - 130 35 mg/Kg 3 Ethylbenzene 0.100 0.1037 mg/Kg 104 70 - 130 4 35 0.200 m-Xylene & p-Xylene 0.2138 mg/Kg 107 70 - 130 35 o-Xylene 0.100 0.1055 mg/Kg 105 70 - 130 3

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-11351-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA Analysis Batch: 20184 Prep Batch: 20192

MS MS %Rec. Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene 0.0996 0.1030 <0.00199 mg/Kg 103 70 - 130 Toluene <0.00199 U 0.0996 0.1018 102 70 - 130 mg/Kg Ethylbenzene <0.00199 U 0.0996 0.1002 101 70 - 130 mg/Kg m-Xylene & p-Xylene <0.00398 U 0.199 0.2090 105 70 - 130 mg/Kg 70 - 130 o-Xylene <0.00199 U 0.0996 0.1073 mg/Kg 108

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1,4-Difluorobenzene (Surr)	99	70 - 130

Lab Sample ID: 880-11351-A-1-D MSD

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 20192

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00199	U	0.0998	0.1114		mg/Kg		112	70 - 130	8	35
Toluene	< 0.00199	U	0.0998	0.1105		mg/Kg		111	70 - 130	8	35
Ethylbenzene	< 0.00199	U	0.0998	0.1094		mg/Kg		110	70 - 130	9	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2279		mg/Kg		114	70 - 130	9	35
o-Xylene	< 0.00199	U	0.0998	0.1154		mg/Kg		116	70 - 130	7	35

MSD MSD

Surrogate	%Recovery	Quaimer	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-19690/1-A

Matrix: Solid

Analysis Batch: 19863

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

Prep Batch: 19690

мв мв Result Qualifier RL Unit Prepared <50.0 U 50.0 mg/Kg 02/17/22 11:56 02/19/22 12:29 Gasoline Range Organics

(GRO)-C6-C10

Client: WSP USA Inc. Job ID: 890-1956-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

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

Lab Sample ID: MB 880-19690/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 19690 **Analysis Batch: 19863** MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/17/22 11:56	02/19/22 12:29	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/17/22 11:56	02/19/22 12:29	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130			02/17/22 11:56	02/19/22 12:29	1
o-Terphenyl	92		70 - 130			02/17/22 11:56	02/19/22 12:29	1

Lab Sample ID: LCS 880-19690/2-A **Client Sample ID: Lab Control Sample** Matrix: Solid Prep Type: Total/NA Analysis Batch: 19863 Prep Batch: 19690

		Spik	e LCS	LCS			%Rec.	
	Analyte	Adde	d Result	Qualifier	Unit	D %Rec	Limits	
	Gasoline Range Organics	100	0 961.8		mg/Kg	96	70 - 130	
	(GRO)-C6-C10							
	Diesel Range Organics (Over	100	0 931.0		mg/Kg	93	70 - 130	
١	C10-C28)							
ı								

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: LCSD 880-19690/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA Analysis Batch: 19863 Prep Batch: 19690

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit D Gasoline Range Organics 1000 972.9 mg/Kg 97 70 - 130 20 (GRO)-C6-C10 Diesel Range Organics (Over 1000 918.4 mg/Kg 92 70 - 130 20 C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: 880-11400-A-1-E MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 19863 Prep Batch: 19690

	Sample	Sample	Spike	IVIS	IVIO				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U	1000	1155		mg/Kg		114	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	110		1000	1036		mg/Kg		93	70 - 130	
C10-C28)										

010 020)			
	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	76		70 - 130
o-Terphenyl	76		70 - 130

Lab Sample ID: 880-11400-A-1-F MSD

Job ID: 890-1956-1

Client: WSP USA Inc. Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19690

	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	998	1159		mg/Kg		115	70 - 130	0	20
Diesel Range Organics (Over	110		998	943.7		mg/Kg		84	70 - 130	9	20

C10-C28)

Matrix: Solid

Analysis Batch: 19863

MSD MSD

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19804/1-A Client Sample ID: Method Blank

Matrix: Solid Prep Type: Soluble

Analysis Batch: 19937

мв мв

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Chloride <5.00 U 5.00 mg/Kg 02/21/22 19:59

Lab Sample ID: LCS 880-19804/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 19937

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	 250	246.7	-	mg/Kg		99	90 - 110	

Lab Sample ID: LCSD 880-19804/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 19937

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	254.4		mg/Kg		102	90 - 110	3	20	

Lab Sample ID: 880-11403-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 19937

	Sample	Sample	эріке	IVIO	IVIO				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	2530		5000	7764		mg/Kg		105	90 - 110

Lab Sample ID: 880-11403-A-1-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Soluble

Analysis Batch: 19937

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	2530		5000	7955		mg/Kg		108	90 - 110	2	20

Client: WSP USA Inc. Job ID: 890-1956-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

GC VOA

Prep	Batcl	h: 1	9723
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8021B	20192
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
MB 880-20192/5-A	Method Blank	Total/NA	Solid	8021B	20192
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	8021B	20192
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20192
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	20192
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20192

Prep Batch: 20192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	5035	
MB 880-20192/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20327

Lab Sample ID	Client Sample ID		Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8015NM Prep	
MB 880-19690/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19690/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19690/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11400-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11400-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8015B NM	19690
MB 880-19690/1-A	Method Blank	Total/NA	Solid	8015B NM	19690
LCS 880-19690/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19690
LCSD 880-19690/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19690
880-11400-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	19690
880-11400-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19690

Analysis Batch: 19991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Total/NA	Solid	8015 NM	

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

HPLC/IC

Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Soluble	Solid	DI Leach	
MB 880-19804/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1956-1	SS07	Soluble	Solid	300.0	19804
MB 880-19804/1-A	Method Blank	Soluble	Solid	300.0	19804
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	300.0	19804
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19804
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	19804
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19804

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Lab Chronicle

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Client Sample ID: SS07 Lab Sample ID: 890-1956-1

Date Collected: 02/14/22 12:10

Date Received: 02/16/22 11:06

Matrix: Solid

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20192	02/24/22 09:39	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20184	02/25/22 06:05	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20327	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19991	02/21/22 19:16	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19690	02/17/22 11:56	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19863	02/19/22 21:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 20:44	CH	XEN MID

Laboratory References:

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

Eurofins Carlsbad

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Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1956-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Laboratory: Eurofins Midland

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

Authority		rogram	Identification Number	Expiration Date			
Texas		ELAP	T104704400-21-22	06-30-22			
The following analytes the agency does not of	• •	ut the laboratory is not certif	ied by the governing authority. This list ma	ay include analytes fo			
Analysis Method	Prep Method	Matrix	Analyte				
8015 NM		Solid	Total TPH				

Method Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1

SDG: 31403720.00

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Released to Imaging: 9/7/2022 2:55:34 PM

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Sample Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

Job ID: 890-1956-1

SDG: 31403720.00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1956-1	SS07	Solid	02/14/22 12:10	02/16/22 11:06	0.5

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Chain of Custody

Work Order No:

	3 A BELL	Relinguished by: (Signature)	Notice: Signature of this do of service. Xenco will be lia of Xenco. A minimum charg	Total 200.7 / 6010 Circle Method(s)				SS07	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	Sampler's Name: P	P.O. Number:	Project Number:	Project Name: N		City, State ZIP: N			Project Manager: K	LABI
	J.C.	(Signature)	cument and relinquishme lble only for the cost of s ge of \$75.00 will be applie	otal 200.7 / 6010 200.8 / 6020: Circle Method(s) and Metal(s) to be analyzed				S		Yes No	Ó	(Ye) No	2.6/a.	PT Temp Blank:	Payton Benner		3140	Macho Nacho State Com 010H	817-683-2503	Midland, Texas 79705	300 North A Street	WSP USA	Kalei Jennings	LABCRATORIES
	Clar Cay	Received by: (Signature)	ent of samples constitute samples and shall not ass and to each project and a c	8 8				02/14/22	Matrix Sampled	Total C	N/A) Correct	1	(ank: Yes No			31403720.00	Com 010H		05	3300 North A Street Building 1, unit 222			Hobbs,NI
		(Signature)	is a valid purchase order to ume any responsibility for charge of \$5 for each samp	ICRA 13PPM Texas 11 AI TCLP / SPLP 6010: 8RCRA				12:10 0.5	Time Depth	Total Containers:	Correction Factor: -O -7	7×-00-4	Thermometer ID	Wet Ice: (Yes) No	Due Date:	Rush:	Routine	Turn Around	Email: Kalei.jennings@wsp.com	City, State ZIP:	2 Address:	Company Name:	Bill to: (if different)	Midland.TX (432-704 Wisherd.TX (432-704 M (575-392-7550) Phoen
	0	Date/Time	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors, 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 a 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 a	s 11 Al Sb As Ba Be 8RCRA Sb As Ba Be				×	Number TPH (E	PA 8	015) 0=8	021)		Ш					nings@wsp.com	ZIP: Midland, Texas 79705	3300 North A Str	Name: WSP USA	ferent) Kalei Jennings	ייא (בייץ) אינדייטי 1-5440) EL Paso,TX (915)585 יוא,AZ (480-355-0900) Atlanta
ה ו		Relinguished by: (Signature)		B Cd Ca Cr Co Cu Fe Cd Cr Co Cu Pb Mn N				×	Chioric	le (E								ANALYSIS REQUEST		79705	3300 North A Street Building 1, unit 222			Tidusidit, A (401) 240-4200 Datias, A (414) 502 5000 Sali Alixono, A (410) 500 5000 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)
		ature) Received by	It assigns standard terms and conditions be due to circumstances beyond the control storced unless previously negotiated.	Pb Mg Mn Mo Ni K Se Ag lo Ni Se Ag TI U								Chair of Casibay	890-1956 Chain of Clusters			_		UEST	Deliverables: EDD	Reporting:Level II Level III	State of Project:	Program: UST/PST PRP		
		Received by: (Signature)		g SiO2 Na Sr Ti Sn ∪ V Zn 1631 / 245.1 / 7470 / 7471 : Hg				DISC	Sample	lab, if receiv	TAT starts the c					_		Work O	ADaPT Other:			□PRP □Brownfields □RC [Work Order Comments	www.xenco.com ^{>} age
		Date/Time		V Zn 70 / 7471 : Hg				DISCRETE	Sample Comments	lab, if received by 4:30pm	TAT starts the day recevied by the							Work Order Notes		Livel IV] : :	[]superfund [1_ of1_

Revised Date 051418 Rev. 2018 1

Carlsbad NM 88220 Phone. 575-988-3199 Fax 575-988-3199

Eurofins Carlsbad

1089 N Canal St.

13 14

Chain of Custody Record

ab PM

Sampler

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🖏 eurofins

Environment Testing America

State, Zip: TX, 79701 SS07 (890-1956-1) Note Since laboratory accreditations are subject to change Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compilance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the aboratory 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. Sample Identification - Client ID (Lab ID) Macho Nacho State Com 010h \$32-704-5440(Tel) Client Information (Sub Contract Lab ossible Hazard Identification /lidland impty Kit Relinquished by Deliverable Requested I II III, IV Other (specify) 211 W Florida Ave, oject Name elinquished by urofins Environment Testing South Centr linquished by Custody Seals Intact: linquished by: hipping/Receiving Yes 몽 Custody Seal No Due Date Requested 2/22/2022 Project #: 89000048 **V**O# PO# TAT Requested (days): Phone Primary Deliverable Rank. 2 Date/Time Date/Time Sample Date Time 2/14/22 Date Mountair Sample Time 12 10 (C=Comp G=grab Sample Preservation Code: Type Company Company ompany Matrix Solid jessica.kramer@eurofinset.com Kramer, Jessica -Mail Field Filtered Sample (Yes or No) NELAP - Louisiana NELAP - Texas Ime Perform MS/MSD (Yes or No) Special Instructions/QC Requirements Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Monitorial Monitorial Return To Client Disposal By Lab 8016MOD_NM/8016NM_S_Prep Full TPH × Received by Cooler Temperature(s) °C and Other Remarks 300_ORGFM_28D/DI_LEACH Chloride × 8021B/5035FP_Calc BTEX × Total_BTEX_GCV Analysis Requested 8015MOD_Calc State of Origin New Mexico Carrier Tracking No(s) Method of Shipment Date/Time Date/I ime **Total Number of containers** A-HCL
B NaOH
C Zn Acetate
D-Nitric Acid
E NaHSO4
F-MeOH
H-Ascorbic Acid
I loe
J-Di Water
K EDTA COC No: 890-628 1 Preservation Codes Page 1 of 1 390-1956-1 Special Instructions/Note: M Hexane
N-None
O AsNaO2
P Na2O4S
Q Na2SO3
R-Na2S2O3
S H2SO4
T TSP Dodec
U Acetone
V MCAA
W pH 4-5
Z other (spec Company TSP Dodecahydrate
Acetone
MCAA Company Ver: 06/08/2021 other (specify) **Wonths**

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1956-1

CDC Number: 31403730 00

SDG Number: 31403720.00

Login Number: 1956 List Source: Eurofins Carlsbad

List Number: 1 Creator: Clifton, Cloe

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

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Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1956-1

SDG Number: 31403720.00

Login Number: 1956
List Source: Eurofins Midland
List Number: 2
List Creation: 02/17/22 01:10 PM

Creator: Kramer, Jessica

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	N/A	

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<6mm (1/4").



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1957-1

Laboratory Sample Delivery Group: 31403720.00 Client Project/Site: Macho Nacho State Com 010h

For:

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

Attn: Kalei Jennings

RAMER

Authorized for release by: 2/28/2022 7:02:45 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

.....LINKS **Review your project**

results through

Have a Question?



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Released to Imaging: 9/7/2022 2:55:34 PM

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

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

Client: WSP USA Inc. Laboratory Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Qualifiers

GC VOA Qualifier

F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Qualifier Description

GC Semi VOA

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

HPLC/IC

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

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

MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit

NC:	Not Calculated

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

NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
DDEC	Procumptive

PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)

	,	,
DI	Departing Limit or Desugated Limit	(Dadiashamista)

RL	Reporting Limit or Requested Limit (Radiochemistry)
----	---

RPD	Relative Percent Difference, a measure of the relative difference between two points
	reductive reduction but the points

TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1

SDG: 31403720.00

Job ID: 890-1957-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-1957-1

Receipt

The samples were received on 2/16/2022 11:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-19726 and analytical batch 880-19783 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: The laboratory control sample (LCS) associated with preparation batch 880-19786 and analytical batch 880-19782 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-19786/2-A), (LCSD 880-19786/3-A), (890-1957-A-1-C MS) and (890-1957-A-1-D MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCSD 880-19727/3-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-19786 and analytical batch 880-19782 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

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

Matrix: Solid

Lab Sample ID: 890-1957-1

Client Sample Results

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Client Sample ID: BH01

Date Collected: 02/14/22 13:42 Date Received: 02/16/22 11:05

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 01:22	1
Toluene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 01:22	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 01:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 01:22	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 01:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 01:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			02/18/22 14:00	02/20/22 01:22	1
1,4-Difluorobenzene (Surr)	102		70 - 130			02/18/22 14:00	02/20/22 01:22	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/22 19:46	1
_	e Organics (DR	O) (GC)						
_		O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte		Qualifier	RL 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/18/22 17:26	
Method: 8015 NM - Diesel Range Analyte Total TPH : Method: 8015B NM - Diesel Range	Result <50.0	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH Method: 8015B NM - Diesel Rang	Result <50.0 ge Organics (Diameter)	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <50.0 ge Organics (Dige Result	Qualifier U RO) (GC)	50.0	mg/Kg	<u> </u>		02/18/22 17:26	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over		Qualifier U RO) (GC) Qualifier	50.0	mg/Kg	<u> </u>	Prepared	02/18/22 17:26 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10		Qualifier U RO) (GC) Qualifier U *+ *1 U *+ *1	50.0 RL 50.0	mg/Kg Unit mg/Kg	<u> </u>	Prepared 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 10:48	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U RO) (GC) Qualifier U *+ *1 U *+ *1	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 02/18/22 08:34 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 10:48 02/18/22 10:48	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U RO) (GC) Qualifier U *+ *1 U *+ *1	50.0 RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 02/18/22 08:34 02/18/22 08:34 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 10:48 02/18/22 10:48	Dil Face
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U RO) (GC) Qualifier U *+ *1 U *+ *1	50.0 RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 02/18/22 08:34 02/18/22 08:34 02/18/22 08:34 Prepared	02/18/22 17:26 Analyzed 02/18/22 10:48 02/18/22 10:48 02/18/22 10:48 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U RO) (GC) Qualifier U *+ *1 U *+ *1 U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 02/18/22 08:34 02/18/22 08:34 02/18/22 08:34 Prepared 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 10:48 02/18/22 10:48 02/18/22 10:48 Analyzed 02/18/22 10:48	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	Result <50.0	Qualifier U RO) (GC) Qualifier U *+ *1 U *+ *1 U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg	<u> </u>	Prepared 02/18/22 08:34 02/18/22 08:34 02/18/22 08:34 Prepared 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 10:48 02/18/22 10:48 02/18/22 10:48 Analyzed 02/18/22 10:48	Dil Fac

Client Sample ID: BH01A

Date Collected: 02/14/22 13:44

Date Received: 02/16/22 11:05

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 01:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 01:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 01:43	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/18/22 14:00	02/20/22 01:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 01:43	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/18/22 14:00	02/20/22 01:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130			02/18/22 14:00	02/20/22 01:43	1

Eurofins Carlsbad

Lab Sample ID: 890-1957-2

Matrix: Solid

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Matrix: Solid

Lab Sample ID: 890-1957-2

Client: WSP USA Inc.

Job ID: 890-1957-1

Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: BH01A

Date Collected: 02/14/22 13:44 Date Received: 02/16/22 11:05

Sample Depth: 2

Method: 8021B - Volatile Organic Compounds	(GC) (Continued)
Method. 002 1D - Volatile Organic Compounds	(OO) (Oolillillided)

Surrogate	%Recovery Qualific	er Limits	Prepared	Analyzed	Dil Fac
1.4-Difluorobenzene (Surr)	99	70 - 130	02/18/22 14:00	02/20/22 01:43	1

Mathad:	Total	RTFY.	. Total	RTEY	Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401 U	0.00401	ma/Ka			02/21/22 19:46	1

Mothod: 8015 NM - Diesel Range	Organice	(DRO) (GC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	ma/Ka			02/18/22 17:26	1

Mathadi 001ED	NM Discal Day	an Organian	(DBO) (CC)
Method: 8015B	nivi - Diesei Kai	ide Ordanics	IDKUI IGGI

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	50.0	mg/Kg		02/18/22 08:34	02/18/22 16:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	50.0	mg/Kg		02/18/22 08:34	02/18/22 16:42	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 08:34	02/18/22 16:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	DII Fac
1-Chlorooctane	98		70 - 130	02/18/22 08:34	02/18/22 16:42	1
o-Terphenyl	92		70 - 130	02/18/22 08:34	02/18/22 16:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.5	4.95	mg/Kg			02/21/22 20:56	1

Client Sample ID: BH03 Lab Sample ID: 890-1957-3 **Matrix: Solid**

Date Collected: 02/14/22 13:57 Date Received: 02/16/22 11:05

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 02:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130			02/18/22 14:00	02/20/22 02:03	1
1,4-Difluorobenzene (Surr)	95		70 - 130			02/18/22 14:00	02/20/22 02:03	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00398	U	0.00398	ma/Ka			02/21/22 19:46	1

Analyte	•	•	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH			<49.9	U	49.9	mg/Kg		-	02/18/22 17:26	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Client Sample ID: BH03 Lab Sample ID: 890-1957-3 Date Collected: 02/14/22 13:57 Matrix: Solid

Date Received: 02/16/22 11:05

Sample Depth: 1

Method: 8015B NM - Diesel Rang	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *+ *1	49.9	mg/Kg		02/18/22 08:34	02/18/22 17:02	
Diesel Range Organics (Over C10-C28)	<49.9	U *+ *1	49.9	mg/Kg		02/18/22 08:34	02/18/22 17:02	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/18/22 08:34	02/18/22 17:02	,
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	88		70 - 130			02/18/22 08:34	02/18/22 17:02	-
o-Terphenyl	89		70 - 130			02/18/22 08:34	02/18/22 17:02	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.3		5.02	mg/Kg			02/21/22 21:03	1

Client Sample ID: BH03A Lab Sample ID: 890-1957-4 Date Collected: 02/14/22 13:59 Matrix: Solid

Date Received: 02/16/22 11:05

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:24	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:24	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/18/22 14:00	02/20/22 02:24	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:24	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/18/22 14:00	02/20/22 02:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130			02/18/22 14:00	02/20/22 02:24	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/18/22 14:00	02/20/22 02:24	1
- Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			02/21/22 19:46	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte Total TPH	Result <49.9		49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/18/22 17:26	Dil Fac
	<49.9	U			<u>D</u>	Prepared		
Total TPH	<49.9 ge Organics (D	U			D	Prepared Prepared		1
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	<49.9 ge Organics (D Result	U (GC)	49.9	mg/Kg			02/18/22 17:26	1 Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte	<pre><quad></quad></pre> quad quad quad <	RO) (GC) Qualifier	49.9	mg/Kg		Prepared	02/18/22 17:26 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<pre><quad></quad></pre> quad quad quad <	U (GC) Qualifier U *+ *1 U *+ *1	49.9 RL 49.9	mg/Kg Unit mg/Kg		Prepared 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 17:45	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<49.9 ge Organics (D) Result <49.9 <49.9	U RO) (GC) Qualifier U *+ *1 U *+ *1	49.9 RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/18/22 08:34 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 17:45 02/18/22 17:45	1 Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<49.9 ge Organics (D) Result <49.9 <49.9 <49.9	U RO) (GC) Qualifier U *+ *1 U *+ *1	49.9 RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 02/18/22 08:34 02/18/22 08:34 02/18/22 08:34	02/18/22 17:26 Analyzed 02/18/22 17:45 02/18/22 17:45	

Project/Site: Macho Nacho State Com 010h

Client: WSP USA Inc. Job ID: 890-1957-1 SDG: 31403720.00

Lab Sample ID: 890-1957-4

Client Sample ID: BH03A Date Collected: 02/14/22 13:59 Date Received: 02/16/22 11:05

Matrix: Solid

Sample Depth: 2

Method: 300.0 - Anions, Ion Chroma	tography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.01		4.98	mg/Kg			02/21/22 21:22	1

Client Sample ID: BH04 Lab Sample ID: 890-1957-5

Date Collected: 02/14/22 13:50 Date Received: 02/16/22 11:05

Matrix: Solid

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:44	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:44	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:44	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		02/18/22 14:00	02/20/22 02:44	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/20/22 02:44	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		02/18/22 14:00	02/20/22 02:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130			02/18/22 14:00	02/20/22 02:44	1
1,4-Difluorobenzene (Surr)	102		70 - 130			02/18/22 14:00	02/20/22 02:44	1
Method: Total BTEX - Total B1	EX Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	11	0.00399	mg/Kg			02/21/22 19:46	

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/18/22 17:26	1
Method: 8015B NM - Diesel Range	e Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U *+ *1	50.0	mg/Kg		02/18/22 08:34	02/18/22 18:06	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U *+ *1	50.0	mg/Kg		02/18/22 08:34	02/18/22 18:06	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 08:34	02/18/22 18:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130			02/18/22 08:34	02/18/22 18:06	1
o-Terphenyl	84		70 - 130			02/18/22 08:34	02/18/22 18:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	<4.95	U	4.95	mg/Kg			02/21/22 21:28	1

Matrix: Solid

Lab Sample ID: 890-1957-6

Client Sample Results

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Client Sample ID: BH04A

Date Collected: 02/14/22 13:52 Date Received: 02/16/22 11:05

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 03:04	1
Toluene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 03:04	1
Ethylbenzene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 03:04	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 03:04	1
o-Xylene	< 0.00199	U	0.00199	mg/Kg		02/18/22 14:00	02/20/22 03:04	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/18/22 14:00	02/20/22 03:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130			02/18/22 14:00	02/20/22 03:04	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/18/22 14:00	02/20/22 03:04	1
Method: Total BTEX - Total BTEX	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			02/21/22 19:46	1
Method: 8015 NM - Diesel Range	e Organics (DR	O) (GC)						
_	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH	•	Qualifier	RL 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 02/18/22 17:26	Dil Fac
Analyte		Qualifier U			<u>D</u>	Prepared		Dil Fac
Analyte Total TPH	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg	_ =	<u> </u>	02/18/22 17:26	1 Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 ge Organics (Dige Result	Qualifier U RO) (GC) Qualifier U *1	50.0	mg/Kg	_ =	Prepared	02/18/22 17:26 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10		Qualifier U RO) (GC) Qualifier U *1	50.0 RL 50.0	mg/Kg Unit mg/Kg	_ =	Prepared 02/17/22 14:25	02/18/22 17:26 Analyzed 02/18/22 18:07	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result <50.0	Qualifier U RO) (GC) Qualifier U *1 U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/17/22 14:25 02/17/22 14:25	02/18/22 17:26 Analyzed 02/18/22 18:07 02/18/22 18:07	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result <50.0	Qualifier U RO) (GC) Qualifier U *1 U	50.0 RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/17/22 14:25 02/17/22 14:25	02/18/22 17:26 Analyzed 02/18/22 18:07 02/18/22 18:07	Dil Face 1 1 1 1 Dil Face
Analyte Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	Result <50.0	Qualifier U RO) (GC) Qualifier U *1 U	50.0 RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/17/22 14:25 02/17/22 14:25 02/17/22 14:25 Prepared	02/18/22 17:26 Analyzed 02/18/22 18:07 02/18/22 18:07 02/18/22 18:07 Analyzed	1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) OII Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	Result <50.0	Qualifier U RO) (GC) Qualifier U *1 U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg mg/Kg	_ =	Prepared 02/17/22 14:25 02/17/22 14:25 02/17/22 14:25 Prepared 02/17/22 14:25	02/18/22 17:26 Analyzed 02/18/22 18:07 02/18/22 18:07 02/18/22 18:07 Analyzed 02/18/22 18:07	Dil Fac

5.01

mg/Kg

<5.01 U

Eurofins Carlsbad

02/21/22 21:34

Chloride

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-1937-A-1-E MS	Matrix Spike	139 S1+	85	
890-1937-A-1-F MSD	Matrix Spike Duplicate	129	105	
890-1957-1	BH01	118	102	
890-1957-2	BH01A	136 S1+	99	
890-1957-3	BH03	119	95	
390-1957-4	BH03A	115	97	
390-1957-5	BH04	131 S1+	102	
390-1957-6	BH04A	114	97	
LCS 880-19726/1-A	Lab Control Sample	106	94	
LCSD 880-19726/2-A	Lab Control Sample Dup	113	94	
MB 880-19710/5-A	Method Blank	136 S1+	106	
MB 880-19726/5-A	Method Blank	120	99	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limit
		1CO1	OTPH1	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
30-11404-A-1-F MS	Matrix Spike	78	75	
80-11404-A-1-G MSD	Matrix Spike Duplicate	86	84	
90-1957-1	BH01	84	84	
D-1957-1 MS	BH01	71	66 S1-	
0-1957-1 MSD	BH01	68 S1-	62 S1-	
0-1957-2	BH01A	98	92	
)-1957-3	BH03	88	89	
-1957-4	ВН03А	91	90	
)-1957-5	BH04	87	84	
0-1957-6	BH04A	99	107	
S 880-19727/2-A	Lab Control Sample	105	120	
SD 880-19727/3-A	Lab Control Sample Dup	119	132 S1+	
3 880-19727/1-A	Method Blank	89	102	

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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

Matrix: Solid Prep Type: Total/NA

-				Percent Surrogate Re
		1CO2	OTPH2	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
LCS 880-19786/2-A	Lab Control Sample	141 S1+	140 S1+	
LCSD 880-19786/3-A	Lab Control Sample Dup	175 S1+	174 S1+	
MB 880-19786/1-A	Method Blank	83	87	
Surrogate Legend				

Surrogate Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

1CO = 1-Chlorooctane OTPH = o-Terphenyl Job ID: 890-1957-1 SDG: 31403720.00

2

20.00

3

4

6

10

13

Client: WSP USA Inc. Job ID: 890-1957-1 SDG: 31403720.00 Project/Site: Macho Nacho State Com 010h

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19710/5-A

Matrix: Solid

Analysis Batch: 19783

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19710

1

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 08:30	02/19/22 11:55	
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 08:30	02/19/22 11:55	•
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 08:30	02/19/22 11:55	•
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/18/22 08:30	02/19/22 11:55	
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 08:30	02/19/22 11:55	•
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/18/22 08:30	02/19/22 11:55	

MB MB

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130
1 4-Diffuorobenzene (Surr)	106		70 130

Prepared Dil Fac Analyzed 02/18/22 08:30 02/19/22 11:55 02/18/22 08:30 02/19/22 11:55

> Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 19726

Lab Sample ID: MB 880-19726/5-A

Matrix: Solid

Analysis Batch: 19783

MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/19/22 23:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/19/22 23:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/19/22 23:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/18/22 14:00	02/19/22 23:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/18/22 14:00	02/19/22 23:32	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/18/22 14:00	02/19/22 23:32	1

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	02/18/22 14:00	02/19/22 23:32	1
1,4-Difluorobenzene (Surr)	99		70 - 130	02/18/22 14:00	02/19/22 23:32	1

Lab Sample ID: LCS 880-19726/1-A

Matrix: Solid

Analysis Batch: 19783

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

Prep Batch: 19726

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.100	0.08006		mg/Kg		80	70 - 130	
Toluene	0.100	0.09114		mg/Kg		91	70 - 130	
Ethylbenzene	0.100	0.09514		mg/Kg		95	70 - 130	
m-Xylene & p-Xylene	0.200	0.1787		mg/Kg		89	70 - 130	
o-Xylene	0.100	0.08747		mg/Kg		87	70 - 130	

LCS LCS

Surrogate	%Recovery (Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: LCSD 880-19726/2-A

Matrix: Solid

Analysis Batch: 19783

Client Sample ID: Lab	Control Sample Dup
	Dron Type, Total/NA

Prep Type: Total/NA

Prep Batch: 19726

	Бріке	LC2D LC	CSD			%Rec.		RPD
Analyte	Added	Result Q	ualifier Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.100	0.08249	mg/K	ig —	82	70 - 130	3	35

QC Sample Results

Job ID: 890-1957-1 Client: WSP USA Inc. SDG: 31403720.00 Project/Site: Macho Nacho State Com 010h

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

Lab Sample ID: LCSD 880-19726/2-A

Matrix: Solid Analysis Batch: 19783 **Client Sample ID: Lab Control Sample Dup**

Prep Type: Total/NA Prep Batch: 19726

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Toluene	0.100	0.08890		mg/Kg		89	70 - 130	2	35
Ethylbenzene	0.100	0.08914		mg/Kg		89	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1773		mg/Kg		89	70 - 130	1	35
o-Xylene	0.100	0.09142		mg/Kg		91	70 - 130	4	35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-1937-A-1-E MS Client Sample ID: Matrix Spike

Matrix: Solid

Analysis Batch: 19783

Prep Type: Total/NA

Prep Batch: 19726

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00202	U F1 F2	0.100	0.05182	F1	mg/Kg		52	70 - 130	
Toluene	<0.00202	U F1	0.100	0.05670	F1	mg/Kg		56	70 - 130	
Ethylbenzene	<0.00202	U	0.100	0.09014		mg/Kg		90	70 - 130	
m-Xylene & p-Xylene	<0.00404	U F1	0.201	0.1275	F1	mg/Kg		63	70 - 130	
o-Xylene	<0.00202	U F1	0.100	0.06332	F1	mg/Kg		63	70 - 130	

MS MS

Surrogate	%Recovery	Qualifier	Limits		
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130		
1,4-Difluorobenzene (Surr)	85		70 - 130		

Lab Sample ID: 890-1937-A-1-F MSD

Matrix: Solid

Analysis Batch: 19783

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19726

		Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
	Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
	Benzene	<0.00202	U F1 F2	0.0998	0.07961	F2	mg/Kg		80	70 - 130	42	35
	Toluene	<0.00202	U F1	0.0998	0.07714		mg/Kg		77	70 - 130	31	35
	Ethylbenzene	<0.00202	U	0.0998	0.09264		mg/Kg		93	70 - 130	3	35
	m-Xylene & p-Xylene	<0.00404	U F1	0.200	0.1586		mg/Kg		79	70 - 130	22	35
	o-Xylene	<0.00202	U F1	0.0998	0.08155		mg/Kg		82	70 - 130	25	35
ı												

MSD MSD

Surrogate	%Recovery Qua	alifier Limits
4-Bromofluorobenzene (Surr)	129	70 - 130
1,4-Difluorobenzene (Surr)	105	70 - 130

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

Lab Sample ID: MB 880-19727/1-A

Matrix: Solid

Analysis Batch: 19777

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

Prep Batch: 19727

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		02/17/22 14:25	02/18/22 09:18	1		
(GRO)-C6-C10										

Job ID: 890-1957-1 Client: WSP USA Inc. Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

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

Lab Sample ID: MB 880-19727/1-A Client Sample ID: Method Blank **Matrix: Solid** Prep Type: Total/NA Prep Batch: 19727 **Analysis Batch: 19777** MB MB

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/17/22 14:25	02/18/22 09:18	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/17/22 14:25	02/18/22 09:18	1
	МВ	MB						
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			02/17/22 14:25	02/18/22 09:18	1
o-Terphenyl	102		70 - 130			02/17/22 14:25	02/18/22 09:18	1

Lab Sample ID: LCS 880-19727/2-A Client Sample ID: Lab Control Sample **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 19777** Prep Batch: 19727 LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 854.1 85 70 - 130 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1072 mg/Kg 107 70 - 130 C10-C28) LCS LCS Qualifier Limits Surrogate %Recovery 1-Chlorooctane 105 70 - 130

o-Terphenyl 120 70 - 130 Lab Sample ID: LCSD 880-19727/3-A

Client Sample ID: Lab Control Sample Dup **Matrix: Solid** Prep Type: Total/NA **Analysis Batch: 19777** Prep Batch: 19727

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	1000	1108	*1	mg/Kg		111	70 - 130	26	20
(GRO)-C6-C10									
Diesel Range Organics (Over	1000	1132		mg/Kg		113	70 - 130	5	20
C10-C28)									

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	132	S1+	70 - 130

Lab Sample ID: 880-11404-A-1-F MS Client Sample ID: Matrix Spike **Matrix: Solid** Prep Type: Total/NA

Analysis Batch: 19777 Prep Batch: 19727

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<50.0	U *1	1000	930.7		mg/Kg		91	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<50.0	U	1000	1008		mg/Kg		101	70 - 130	
C10 C28)										

C10-C28)	00.0		.000	.000	99	
010 020)						
	MS	MS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	78		70 - 130			
o-Terphenyl	75		70 ₋ 130			
	C10-C28) Surrogate 1-Chlorooctane	MS Surrogate %Recovery 1-Chlorooctane 78	C10-C28) MS MS Surrogate %Recovery Qualifier 1-Chlorooctane 78	C10-C28) MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 78 70 - 130	C10-C28) MS MS Surrogate %Recovery Qualifier Limits 1-Chlorooctane 78 70 - 130	C10-C28) MS MS Surrogate

Lab Sample ID: 880-11404-A-1-G MSD

Client: WSP USA Inc. Job ID: 890-1957-1 SDG: 31403720.00 Project/Site: Macho Nacho State Com 010h

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

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 19727

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics	<50.0	U *1	998	1056		mg/Kg		104	70 - 130	13	20
(GRO)-C6-C10											
Diesel Range Organics (Over	<50.0	U	998	1127		ma/Ka		113	70 - 130	11	20

C10-C28)

Matrix: Solid

Analysis Batch: 19777

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	86		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: MB 880-19786/1-A Client Sample ID: Method Blank

Matrix: Solid

Analysis Batch: 19782

Prep Type: Total/NA

Prep Batch: 19786

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		02/18/22 08:34	02/18/22 09:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		02/18/22 08:34	02/18/22 09:43	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 08:34	02/18/22 09:43	1

MB MB

Surrogate	%Recovery Qualifi	ier Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83	70 - 130	02/18/22 08:34	02/18/22 09:43	1
o-Terphenyl	87	70 - 130	02/18/22 08:34	02/18/22 09:43	1

Lab Sample ID: LCS 880-19786/2-A

Matrix: Solid

Analysis Batch: 19782

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

Prep Batch: 19786

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1056		mg/Kg		106	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	1360	*+	mg/Kg		136	70 - 130	
C10-C28)								

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	141	S1+	70 - 130
o-Terphenyl	140	S1+	70 - 130

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Lab Sample ID: LCSD 880-19786/3-A

Analysis Batch: 19782

Prep Type: Total/NA Prep Batch: 19786

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	1327	*+ *1	mg/Kg		133	70 - 130	23	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1708	*+ *1	mg/Kg		171	70 - 130	23	20	
C10-C28)										

Client: WSP USA Inc. Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

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

Lab Sample ID: LCSD 880-19786/3-A **Matrix: Solid** Analysis Batch: 19782

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

Prep Batch: 19786

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 175 S1+ 70 - 130 o-Terphenyl 174 S1+ 70 - 130

Lab Sample ID: 890-1957-1 MS Client Sample ID: BH01

Matrix: Solid Prep Type: Total/NA Analysis Batch: 19782

Prep Batch: 19786

Sample Sample Spike MS MS %Rec. Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits <50.0 U*+ *1 1000 1006 98 70 - 130Gasoline Range Organics mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1197 <50.0 U *+ *1 mg/Kg 120 70 - 130C10-C28)

MS MS %Recovery Surrogate Qualifier Limits 70 - 130 1-Chlorooctane 71 66 S1-70 - 130 o-Terphenyl

Lab Sample ID: 890-1957-1 MSD Client Sample ID: BH01

Matrix: Solid Prep Type: Total/NA **Analysis Batch: 19782** Prep Batch: 19786

MSD MSD RPD Sample Sample Spike %Rec.

Added Result Qualifier Analyte Result Qualifier Unit %Rec I imits RPD Limit D Gasoline Range Organics <50.0 U *+ *1 998 948.8 mg/Kg 93 70 - 130 6 20 (GRO)-C6-C10 <50.0 U *+ *1 Diesel Range Organics (Over 998 1145 mg/Kg 115 70 - 130 20 C10-C28)

MSD MSD %Recovery Qualifier Surrogate Limits 68 S1-70 - 130 1-Chlorooctane o-Terphenyl 70 - 130 62 S1-

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19804/1-A Client Sample ID: Method Blank **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 19937

мв мв Dil Fac Analyte Result Qualifier RL Unit D Prepared Analyzed Chloride <5.00 U 5.00 mg/Kg 02/21/22 19:59

Lab Sample ID: LCS 880-19804/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 19937

Spike LCS LCS %Rec. Analyte Added Result Qualifier Limits Unit Chloride 250 246.7 mg/Kg 90 - 110

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-19804/3-A Client Sample ID: Lab Control Sample Dup **Matrix: Solid Prep Type: Soluble**

Analysis Batch: 19937

	Бріке	LC2D	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	254.4		mg/Kg		102	90 - 110	3	20	

Lab Sample ID: 880-11403-A-1-B MS Client Sample ID: Matrix Spike **Matrix: Solid**

Prep Type: Soluble

Analysis Batch: 19937

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	2530	·	5000	7764		mg/Kg		105	90 - 110	

Lab Sample ID: 880-11403-A-1-C MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Soluble

Analysis Batch: 19937

MSD MSD %Rec. RPD Sample Sample Spike

Result Qualifier Limit Analyte Added Result Qualifier Unit Limits **RPD** Chloride 2530 5000 7955 108 90 - 110 mg/Kg

QC Association Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

GC VOA

Prep Batch: 19710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19710/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 19726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	5035	
890-1957-2	BH01A	Total/NA	Solid	5035	
890-1957-3	BH03	Total/NA	Solid	5035	
890-1957-4	ВН03А	Total/NA	Solid	5035	
890-1957-5	BH04	Total/NA	Solid	5035	
890-1957-6	BH04A	Total/NA	Solid	5035	
MB 880-19726/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-19726/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-19726/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1937-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-1937-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 19783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	8021B	19726
890-1957-2	BH01A	Total/NA	Solid	8021B	19726
890-1957-3	BH03	Total/NA	Solid	8021B	19726
890-1957-4	ВН03А	Total/NA	Solid	8021B	19726
890-1957-5	BH04	Total/NA	Solid	8021B	19726
890-1957-6	BH04A	Total/NA	Solid	8021B	19726
MB 880-19710/5-A	Method Blank	Total/NA	Solid	8021B	19710
MB 880-19726/5-A	Method Blank	Total/NA	Solid	8021B	19726
LCS 880-19726/1-A	Lab Control Sample	Total/NA	Solid	8021B	19726
LCSD 880-19726/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	19726
890-1937-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	19726
890-1937-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	19726

Analysis Batch: 20009

Lab Sample ID 890-1957-1	Client Sample ID BH01	Prep Type Total/NA	Matrix Solid	Method Total BTEX	Prep Batch
890-1957-2	BH01A	Total/NA	Solid	Total BTEX	
890-1957-3	BH03	Total/NA	Solid	Total BTEX	
890-1957-4	ВН03А	Total/NA	Solid	Total BTEX	
890-1957-5	BH04	Total/NA	Solid	Total BTEX	
890-1957-6	BH04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 19727

Lab Sample ID 890-1957-6	Client Sample ID BH04A	Prep Type Total/NA	Matrix Solid	Method 8015NM Prep	Prep Batch
MB 880-19727/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19727/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19727/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-11404-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-11404-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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Released to Imaging: 9/7/2022 2:55:34 PM

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QC Association Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

SDG: 31403720.00

GC Semi VOA

Analysis Batch: 19777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-6	BH04A	Total/NA	Solid	8015B NM	19727
MB 880-19727/1-A	Method Blank	Total/NA	Solid	8015B NM	19727
LCS 880-19727/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19727
LCSD 880-19727/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19727
880-11404-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	19727
880-11404-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19727

Analysis Batch: 19782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	8015B NM	19786
890-1957-2	BH01A	Total/NA	Solid	8015B NM	19786
890-1957-3	BH03	Total/NA	Solid	8015B NM	19786
890-1957-4	ВН03А	Total/NA	Solid	8015B NM	19786
890-1957-5	BH04	Total/NA	Solid	8015B NM	19786
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015B NM	19786
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19786
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19786
890-1957-1 MS	BH01	Total/NA	Solid	8015B NM	19786
890-1957-1 MSD	BH01	Total/NA	Solid	8015B NM	19786

Prep Batch: 19786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Total/NA	Solid	8015NM Prep	
890-1957-2	BH01A	Total/NA	Solid	8015NM Prep	
890-1957-3	BH03	Total/NA	Solid	8015NM Prep	
890-1957-4	ВН03А	Total/NA	Solid	8015NM Prep	
890-1957-5	BH04	Total/NA	Solid	8015NM Prep	
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1957-1 MS	BH01	Total/NA	Solid	8015NM Prep	
890-1957-1 MSD	BH01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 19842

Lab Sample ID 890-1957-1	Client Sample ID BH01	Prep Type Total/NA	Matrix Solid	Method 8015 NM	Prep Batch
890-1957-2	BH01A	Total/NA	Solid	8015 NM	
890-1957-3	BH03	Total/NA	Solid	8015 NM	
890-1957-4	BH03A	Total/NA	Solid	8015 NM	
890-1957-5	BH04	Total/NA	Solid	8015 NM	
890-1957-6	BH04A	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Soluble	Solid	DI Leach	
890-1957-2	BH01A	Soluble	Solid	DI Leach	
890-1957-3	BH03	Soluble	Solid	DI Leach	
890-1957-4	BH03A	Soluble	Solid	DI Leach	
890-1957-5	BH04	Soluble	Solid	DI Leach	

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QC Association Summary

Client: WSP USA Inc. Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

HPLC/IC (Continued)

Leach Batch: 19804 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-6	BH04A	Soluble	Solid	DI Leach	
MB 880-19804/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1957-1	BH01	Soluble	Solid	300.0	19804
890-1957-2	BH01A	Soluble	Solid	300.0	19804
890-1957-3	BH03	Soluble	Solid	300.0	19804
890-1957-4	BH03A	Soluble	Solid	300.0	19804
890-1957-5	BH04	Soluble	Solid	300.0	19804
890-1957-6	BH04A	Soluble	Solid	300.0	19804
MB 880-19804/1-A	Method Blank	Soluble	Solid	300.0	19804
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	300.0	19804
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19804
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	19804
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19804

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

Lab Sample ID: 890-1957-1

Matrix: Solid

Job ID: 890-1957-1

SDG: 31403720.00

Client Sample ID: BH01 Date Collected: 02/14/22 13:42

Date Received: 02/16/22 11:05

	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	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 01:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 10:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 20:50	CH	XEN MID

Client Sample ID: BH01A Lab Sample ID: 890-1957-2

Date Collected: 02/14/22 13:44 Matrix: Solid Date Received: 02/16/22 11:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 01:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 16:42	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 20:56	CH	XEN MID

Client Sample ID: BH03 Lab Sample ID: 890-1957-3

Date Collected: 02/14/22 13:57 **Matrix: Solid** Date Received: 02/16/22 11:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 02:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 17:02	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 21:03	CH	XEN MID

Client Sample ID: BH03A Lab Sample ID: 890-1957-4

Date Collected: 02/14/22 13:59 **Matrix: Solid** Date Received: 02/16/22 11:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 02:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1 SDG: 31403720.00

Client Sample ID: BH03A

Date Collected: 02/14/22 13:59 Date Received: 02/16/22 11:05

Lab Sample ID: 890-1957-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Batch Batch Dil Initial Final Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Total/NA 8015 NM Analysis 19842 02/18/22 17:26 AJ XEN MID Total/NA Prep 8015NM Prep 10.03 g 10 mL 19786 02/18/22 08:34 DM XEN MID Total/NA Analysis 8015B NM 19782 02/18/22 17:45 ΑJ XEN MID 1 5.02 g 19804 02/18/22 10:28 XEN MID Soluble Leach DI Leach 50 mL CH 02/21/22 21:22 CH Soluble Analysis 300.0 1 19937 XEN MID

Client Sample ID: BH04 Lab Sample ID: 890-1957-5

Date Collected: 02/14/22 13:50

Date Received: 02/16/22 11:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 02:44	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 18:06	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 21:28	CH	XEN MID

Client Sample ID: BH04A Lab Sample ID: 890-1957-6

Date Collected: 02/14/22 13:52 Date Received: 02/16/22 11:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	19726	02/18/22 14:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	19783	02/20/22 03:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			20009	02/21/22 19:46	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19842	02/18/22 17:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19727	02/17/22 14:25	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19777	02/18/22 18:07	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	19804	02/18/22 10:28	СН	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 21:34	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1957-1 Project/Site: Macho Nacho State Com 010h SDG: 31403720.00

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-21-22	06-30-22
The following analytes	are included in this report, but	t the laboratory is not certific	ed by the governing authority. This list ma	av include analytes fo
the agency does not of	• •	it the laboratory is not certific	su by the governing authority. This list his	ay include analytes to
,	• •	Matrix	Analyte	ay include analytes to
the agency does not of	fer certification.	,	, , ,	ay include arialytes to

Method Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010h

Job ID: 890-1957-1

SDG: 31403720.00

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins 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: Macho Nacho State Com 010h

Job ID: 890-1957-1

SDG: 31403720.00

403720.00	

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1957-1	BH01	Solid	02/14/22 13:42	02/16/22 11:05	1
890-1957-2	BH01A	Solid	02/14/22 13:44	02/16/22 11:05	2
890-1957-3	BH03	Solid	02/14/22 13:57	02/16/22 11:05	1
890-1957-4	BH03A	Solid	02/14/22 13:59	02/16/22 11:05	2
890-1957-5	BH04	Solid	02/14/22 13:50	02/16/22 11:05	1
890-1957-6	BH04A	Solid	02/14/22 13:52	02/16/22 11:05	2

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Chain of Custody

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

Revised Date 051418 Rev. 2018 1											. G
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		46	1105	21/4.27	रु		8	toy Co		1701	noget of
ture) Date/Time	ure) Received by: (Signature)	Relinquished by: (Signature)	ne	Date/Time		re)	Received by: (Signature)	Received t		(Signature)	Relinquished by: (Signature)
	It assigns standard terms and conditions for the control for edue to circumstances beyond the control forced unless previously negotiated.	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	enco, its affi incurred by but not analy	or expenses d to Xenco,	m client co ny losses submitted	chase order fron ponsibility for a for each sample	tes a valid pur ssume any res a charge of \$5 t	samples constitus and shall not a ach project and a	quishment of ost of sample se applied to e	ocument and relin iable only for the c rge of \$75.00 will t	Notice: Signature of this d of service. Xenco will be I of Xenco. A minimum cha
g			D4 D6 C	SA GO	ACTA	ICLY / SPLP BUID: SHURA	ו כנד / אר	alyzed	s) to be an	s) and Metal(Circle Method(s) and Metal(s) to be analyzed
Na Sr TI Sn U V Zn 1631 / 245.1 / 7470 / 7471 : Ho	Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na	Cd Ca Cr Co Cu Fe	_p _{Be}	Sb As		PM Texas 11	BRCRA 13PPM	8A	6020:	10 200.8 / 6020:	Total 200.7 / 6010
DISCRETE			×	×	-	2	13:52	02/14/22	S	A	BH04A
DISCRETE			×	×		_	13:50	02/14/22	S	14	ВН04
DISCRETE			×	×	-1	2	13:59	02/14/22	S	Α	вноза
DISCRETE			×	×	-1	_	13:57	02/14/22	S	3	вноз
DISCRETE			×	×	-1	2	13:44	02/14/22	S	A	ВН01А
DISCRETE			×	×	1	1	13:42	02/14/22	S	_	ВН01
Sample Comments			Chloric	TPH (E	Numb	Depth	Time Sampled	Date Sampled	Matrix	tification	Sample Identification
lab, if received by 4:30pm					er of		Total Containers:	Tota	No WA	Yes	Sample Custody Seals:
TAT starts the day recevied by the			-		Co	-0.2	Correction Factor:	Corre	No MA	Yes	Cooler Custody Seals
	890-1957 Chain of Custody	890-1957 Ch	-	-	ntai	Ш	NW-90	7	No	(S)	Received Intact:
)		ners	ō	Thermometer ID		18-4	ට ව.6	Temperature (°C):
					•	Yes No	Wet ice:	(Yes) No	Temp Blank:		SAMPLE RECEIPT
						Date:	Due Date:)r	Payton Benner	Sampler's Name:
							Rush:				P.O. Number:
						ine 🗆	Routine).00	31403720.00		Project Number:
Work Order Notes	ST	ANALYSIS REQUEST				Turn Around	Tι	n 010H	State Cor	Macho Nacho State Com 010H	Project Name:
ADaPI L Other:	Deliverables: EDD L ADar			sp.com	ngs@ws	Kalei.jennings@wsp.com	Email:			817-683-2503	Phone:
Ç	Level	05	Midland, Texas 79705	Midland,	. <u>Þ</u>	City, State ZIP:			ıs 79705	Midland, Texas 79705	City, State ZIP:
ם ב		3300 North A Street Building 1, unit 222	th A Street	3300 Nor		Address:	222	lding 1, unit 2	Street Bui	3300 North A Street Building 1, unit 222	
vnfields ☐RC ☐uperfund ☐	Program: UST/PST PRP Brownfields		A	WSP USA		Company Name:				WSP USA	
Comments	Work Order Comments		nings	Kalei Jennings		Bill to: (if different)			S	Kalei Jennings	Project Manager:
m rage	(320-2000) www.xenco.com	Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)	Atlanta, G.	-355-0900)	,AZ (480	7550) Phoenix	NM (575-392-	Hobbs,			1

Work Order No:

www.xenco.com

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Eurofins Carlsbad

089 N Canal St.

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Chain of Custody Record

eurofins 🕏

Environment Testing

State Zip. TX, 79701 BH04A (890-1957-6) BH01A (890-1957-2) BH01 (890-1957-1) Carlsbad, NM 88220 Phone. 575-988-3199 Fax: 575-988-3199 BH04 (890-1957-5) ВН03 (890-1957-3) Sample Identification - Client ID (Lab ID) tote: 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 aboratory 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 correditation 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. 3H03A (890-1957-4) Midland mpty Kit Relinquished by Deliverable Requested 1 II IV Other (specify) ossible Hazard Identification I32-704-5440(Tel) 211 W Florida Ave Macho Nacho State Com 010h elinquished by: linquished by oject Name Custody Seals Intact: urofins Environment Testing South Centr nipping/Receiving lient Information nquished by Yes 8 (Sub Contract Lab Custody Seal No Sampler WO# Phone: Primary Deliverable Rank. 2 F 0 TAT Requested (days): Due Date Requested 2/22/2022 Date/Time Date/Time 89000048 roject# Sample Date 2/14/22 2/14/22 2/14/22 2/14/22 2/14/22 2/14/22 Date Mountain 13 52 Mountain 13 50 Mountain 13.59 Mountain 13 57 Mountain 13 44 Mountain Time G=grab) (C=comp, Preservation Code: Type Company Matrix Solid Solid Solid Solid Solid Solid essica.kramer@eurofinset com Kramer, Jessica I Ime: Field Filtered Sample (Yes or No) NELAP - Louisiana, NELAP - Texas Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Special Instructions/QC Requirements Perform MS/MSD (Yes or No) 8015MOD_NM/8015NM_S_Prep Full TPH × × × × × Cooler Temperature(s) °C and Other Remarks × /ed × × × × × 300_ORGFM_28D/DI_LEACH Chloride × × × × 8021B/5035FP_Calc BTEX × × × Total_BTEX_GCV × × × × × Analysis Requested × × × × × × 8015MOD_Calc State of Origin New Mexico Carrier Tracking No(s) Method of Shipment Date/Time Date/Time 906 4 4 Total Number of containers 4 G Amchlor
H - Ascorbic Acid
I Ice
J DI Water
K EDTA
L - EDA A HCL
B NaOH
C Zn Acetate
D Nitric Acid
E NaHSO4
F MeOH COC No 890-628 1 Preservation Codes Page 1 of 1 390-1957-1 Special Instructions/Note: M - Hexane

N None

Cetate O AsNaO2

Acid P Na2O4S

N Na2SO3

R Na2SC3

R Na2SC3

S H2SO4

T - TSP Dodecahydrate

V MCAA

V pu - NCAA Company Company other (specify)

Ver: 06/08/2021

Login Sample Receipt Checklist

 Client: WSP USA Inc.
 Job Number: 890-1957-1

 SDG Number: 31403720.00

List Source: Eurofins Carlsbad

Login Number: 1957 List Number: 1 Creator: Clifton, Cloe

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

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Login Sample Receipt Checklist

Job Number: 890-1957-1 SDG Number: 31403720.00

List Source: Eurofins Midland

List Creation: 02/17/22 01:10 PM

Login Number: 1957 List Number: 2

Client: WSP USA Inc.

Creator: Kramer, Jessica

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

Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1959-1

Laboratory Sample Delivery Group: 31403720.00 Client Project/Site: Macho Nacho State Com 010H

For:

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

Attn: Kalei Jennings

JURAMER

Authorized for release by: 2/28/2022 7:07:36 PM

Jessica Kramer, Project Manager (432)704-5440

jessica.kramer@eurofinset.com

-----LINKS

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Have a Question?



Visit us at:

www.eurofinsus.com/Env
Released to Imaging: 9/7/2022 2:55:34 PM

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

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

Client: WSP USA Inc.

Laboratory Job ID: 890-1959-1

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.00

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Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1959-1 Project/Site: Macho Nacho State Com 010H

SDG: 31403720.00

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier **Qualifier Description**

*+ LCS and/or LCSD is outside acceptance limits, high biased.

*1 LCS/LCSD RPD exceeds control limits.

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

HPLC/IC

Qualifier **Qualifier Description**

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit Contains No Free Liquid **CNF**

Duplicate Error Ratio (normalized absolute difference) DER

Dil Fac Dilution Factor

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) Limit of Quantitation (DoD/DOE) LOQ

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

Method Detection Limit MDL ML Minimum Level (Dioxin) MPN Most Probable Number MOI Method Quantitation Limit

NC Not Calculated

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

NEG Negative / Absent POS Positive / Present

Practical Quantitation Limit **PQL**

PRES Presumptive **Quality Control** QC

Relative Error Ratio (Radiochemistry) **RER**

Reporting Limit or Requested Limit (Radiochemistry) RL

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

Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) **TEQ**

TNTC Too Numerous To Count

Case Narrative

Client: WSP USA Inc. Job ID: 890-1959-1

Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

Job ID: 890-1959-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-1959-1

Receipt

The samples were received on 2/16/2022 11:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

GC VOA

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

GC Semi VOA

Method 8015MOD NM: The laboratory control sample (LCS) associated with preparation batch 880-19786 and analytical batch 880-19782 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-1957-A-1-C MS) and (890-1957-A-1-D 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.

HPLC/IC

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

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.00

Client Sample ID: BH02

Date Collected: 02/14/22 12:23

Lab Sample ID: 890-1959-1

Matrix: Solid

Date Collected: 02/14/22 12:23
Date Received: 02/16/22 11:05

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/25/22 01:18	
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/25/22 01:18	•
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/25/22 01:18	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		02/24/22 09:39	02/25/22 01:18	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 09:39	02/25/22 01:18	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		02/24/22 09:39	02/25/22 01:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			02/24/22 09:39	02/25/22 01:18	1
1,4-Difluorobenzene (Surr)	97		70 - 130			02/24/22 09:39	02/25/22 01:18	1
Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			02/25/22 13:43	1
Method: 8015 NM - Diesel Range Analyte		O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			02/18/22 20:05	1
Method: 8015B NM - Diesel Rang	je Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *+ *1	50.0	mg/Kg		02/18/22 08:34	02/18/22 18:27	1
Diesel Range Organics (Over C10-C28)	<50.0	U *+ *1	50.0	mg/Kg		02/18/22 08:34	02/18/22 18:27	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		02/18/22 08:34	02/18/22 18:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130			02/18/22 08:34	02/18/22 18:27	1
o-Terphenyl	80		70 - 130			02/18/22 08:34	02/18/22 18:27	1
Method: 300.0 - Anions, Ion Chro	matography -	Soluble						
Method: 300.0 - Anions, Ion Chro Analyte	•	Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: BH05 Lab Sample ID: 890-1959-2

Date Collected: 02/14/22 12:44 Date Received: 02/16/22 11:05

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 01:38	1
Toluene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 01:38	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 01:38	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		02/24/22 09:39	02/25/22 01:38	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		02/24/22 09:39	02/25/22 01:38	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		02/24/22 09:39	02/25/22 01:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	130		70 - 130			02/24/22 09:39	02/25/22 01:38	1

Eurofins Carlsbad

Matrix: Solid

Lab Sample ID: 890-1959-2

Client Sample Results

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.00

Client Sample ID: BH05

Method: 300.0 - Anions, Ion Chromatography - Soluble

Result Qualifier

13.6

Date Collected: 02/14/22 12:44 Date Received: 02/16/22 11:05

Sample Depth: 1

Analyte

Chloride

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	88		70 - 130			02/24/22 09:39	02/25/22 01:38	1
- Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			02/25/22 13:43	1
- Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			02/18/22 20:05	1
- Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<49.9	U *+ *1	49.9	mg/Kg		02/18/22 08:34	02/18/22 18:48	1
(GRO)-C6-C10 Diesel Range Organics (Over	<10.0	U *+ *1	49.9	mg/Kg		02/18/22 08:34	02/18/22 18:48	1
C10-C28)	140.0	0 . 1	40.0	mg/itg		02/10/22 00:54	02/10/22 10.40	
	<49.9	U	49.9	mg/Kg		02/18/22 08:34	02/18/22 18:48	1
Oll Range Organics (Over C28-C36)								
Oll Range Organics (Over C28-C36) Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
, ,	%Recovery	Qualifier	Limits 70 - 130			Prepared 02/18/22 08:34	Analyzed 02/18/22 18:48	Dil Fac

4.96

Unit

mg/Kg

Prepared

Analyzed

02/21/22 21:47

Dil Fac

Surrogate Summary

Client: WSP USA Inc. Job ID: 890-1959-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-11351-A-1-C MS	Matrix Spike	101	99	
880-11351-A-1-D MSD	Matrix Spike Duplicate	104	100	
890-1959-1	BH02	101	97	
890-1959-2	BH05	130	88	
LCS 880-20192/1-A	Lab Control Sample	102	99	
LCSD 880-20192/2-A	Lab Control Sample Dup	104	101	
MB 880-19723/5-A	Method Blank	99	95	
MB 880-20192/5-A	Method Blank	98	94	
Surrogate Legend				

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

		1001	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-1957-A-1-C MS	Matrix Spike	71	66 S1-
890-1957-A-1-D MSD	Matrix Spike Duplicate	68 S1-	62 S1-
890-1959-1	BH02	81	80
890-1959-2	BH05	98	97

1CO = 1-Chlorooctane OTPH = o-Terphenyl

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Lin
		1CO2	OTPH2	
ab Sample ID	Client Sample ID	(70-130)	(70-130)	
_CS 880-19786/2-A	Lab Control Sample	141 S1+	140 S1+	
CSD 880-19786/3-A	Lab Control Sample Dup	175 S1+	174 S1+	
1B 880-19786/1-A	Method Blank	83	87	
Surrogate Legend				
1CO = 1-Chlorooctane				

OTPH = o-Terphenyl

Client: WSP USA Inc. Job ID: 890-1959-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-19723/5-A

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19723

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	
Toluene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		02/24/22 07:45	02/24/22 11:10	
o-Xylene	<0.00200	U	0.00200	mg/Kg		02/24/22 07:45	02/24/22 11:10	
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		02/24/22 07:45	02/24/22 11:10	

MB MB

MR MR

Result Qualifier

Surrogate	%Recovery 0	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99	70 - 130	02/24/22 07:45	02/24/22 11:10	1
1,4-Difluorobenzene (Surr)	95	70 - 130	02/24/22 07:45	02/24/22 11:10	1

Lab Sample ID: MB 880-20192/5-A

Matrix: Solid

Analyte

Analysis Batch: 20184

Client Sample ID: Method Blank

Analyzed

Prepared

Prep Type: Total/NA

Prep Batch: 20192

Dil Fac

Benzene <0.00200 U 0.00200 mg/Kg 02/24/22 09:39 02/24/22 22:54 Toluene <0.00200 U 0.00200 mg/Kg 02/24/22 09:39 02/24/22 22:54 02/24/22 22:54 Ethylbenzene <0.00200 U 0.00200 mg/Kg 02/24/22 09:39 0.00400 02/24/22 09:39 02/24/22 22:54 m-Xylene & p-Xylene <0.00400 U mg/Kg <0.00200 U 0.00200 02/24/22 22:54 o-Xylene mg/Kg 02/24/22 09:39 02/24/22 09:39 Xylenes, Total <0.00400 U 0.00400 mg/Kg 02/24/22 22:54

RL

Unit

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	02/24/22 09:39	02/24/22 22:54	1
1,4-Difluorobenzene (Surr)	94		70 - 130	02/24/22 09:39	02/24/22 22:54	1

Lab Sample ID: LCS 880-20192/1-A

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 20192

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.100	0.1094		mg/Kg		109	70 - 130
Toluene	0.100	0.1080		mg/Kg		108	70 - 130
Ethylbenzene	0.100	0.1082		mg/Kg		108	70 - 130
m-Xylene & p-Xylene	0.200	0.2226		mg/Kg		111	70 - 130
o-Xylene	0.100	0.1088		mg/Kg		109	70 - 130

LCS LCS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	102	70 - 130
1.4-Difluorobenzene (Surr)	99	70 - 130

Lab Sample ID: LCSD 880-20192/2-A

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Lab	Control Sample Dup
	Duny Towns Total/NIA

Prep Type: Total/NA

Prep Batch: 20192

	Spike	LCSD LCSD				%Rec.		RPD	
Analyte	Added	Result Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1056	mg/Kg		106	70 - 130	4	35	

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QC Sample Results

Client: WSP USA Inc. Job ID: 890-1959-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

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

Lab Sample ID: LCSD 880-20192/2-A

Matrix: Solid Analysis Batch: 20184

Analyte

Toluene

o-Xylene

Ethylbenzene

m-Xylene & p-Xylene

Client Sample II	: Lab Control	Sample Du
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Prep Type: Total/NA Prep Batch: 20192

Spike LCSD LCSD %Rec. **RPD** Added Result Qualifier Unit %Rec Limits **RPD** Limit 0.100 0.1044 104 70 - 130 35 ma/Ka 3 0.100 0.1037 mg/Kg 104 70 - 130 4 35 0.200 0.2138 mg/Kg 107 70 130 35 0.100 0.1055 mg/Kg 105 70 - 130 3 35

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-11351-A-1-C MS Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA Analysis Batch: 20184 Prep Batch: 20192 MS MS %Rec.

Sample Sample Spike Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Benzene U 0.0996 0.1030 <0.00199 mg/Kg 103 70 - 130 Toluene <0.00199 0.0996 0.1018 102 70 - 130 U mg/Kg 0.0996 0.1002 101 70 - 130 Ethylbenzene < 0.00199 mg/Kg m-Xylene & p-Xylene <0.00398 U 0.199 0.2090 105 70 - 130 mg/Kg o-Xylene <0.00199 U 0.0996 0.1073 mg/Kg 108 70 - 130

MS MS

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	101	70 - 130
1,4-Difluorobenzene (Surr)	99	70 - 130

Lab Sample ID: 880-11351-A-1-D MSD

Matrix: Solid

Analysis Batch: 20184

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA Prep Batch: 20192

Sample Sample MSD MSD RPD Spike %Rec. Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Benzene <0.00199 0.0998 0.1114 mg/Kg 112 70 - 130 8 35 Toluene <0.00199 U 0.0998 0.1105 mg/Kg 111 70 - 130 8 35 Ethylbenzene < 0.00199 0.0998 0.1094 mg/Kg 110 70 - 130 35 0.200 <0.00398 U 0.2279 70 - 130 35 m-Xylene & p-Xylene mg/Kg 114 0.0998 o-Xylene <0.00199 U 0.1154 mg/Kg 116 70 - 130 35

MSD MSD

MB MB

Qualifier

Result

<50.0 U

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-19786/1-A

Gasoline Range Organics

Analysis Batch: 19782

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

Prepared

02/18/22 08:34

Prep Batch: 19786

02/18/22 09:43

(GRO)-C6-C10

Analyte

Matrix: Solid

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RL

50.0

Unit

mg/Kg

Client: WSP USA Inc. Job ID: 890-1959-1 Project/Site: Macho Nacho State Com 010H

SDG: 31403720.00

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

Lab Sample ID: MB 880-19786/1-A **Matrix: Solid**

Lab Sample ID: LCS 880-19786/2-A

Matrix: Solid

Analysis Batch: 19782

Analysis Batch: 19782

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

Prep Batch: 19786

MB MB Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac <50.0 U 50.0 02/18/22 08:34 02/18/22 09:43 Diesel Range Organics (Over mg/Kg C10-C28) OII Range Organics (Over C28-C36) 50.0 02/18/22 08:34 02/18/22 09:43 <50.0 U mg/Kg

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	02/18/22 08:34	02/18/22 09:43	1
o-Terphenyl	87		70 - 130	02/18/22 08:34	02/18/22 09:43	1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19786

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Gasoline Range Organics 1000 1056 106 70 - 130 mg/Kg (GRO)-C6-C10 1000 1360 *+ Diesel Range Organics (Over mg/Kg 136 70 - 130 C10-C28)

LCS LCS

Surrogate		%Recovery	Qualifier	Limits
	1-Chlorooctane	141	S1+	70 - 130
	o-Terphenyl	140	S1+	70 - 130

Lab Sample ID: LCSD 880-19786/3-A

Matrix: Solid

Analysis Batch: 19782

Client Sample ID: Lab Control Sample Du

Prep Type: Total/NA

Prep Batch: 19786

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics	1000	1327	*+ *1	mg/Kg		133	70 - 130	23	20	
(GRO)-C6-C10										
Diesel Range Organics (Over	1000	1708	*+ *1	mg/Kg		171	70 - 130	23	20	
C10-C28)										

LCSD LCSD Surrogate %Recovery Qualifier Limits 1-Chlorooctane 175 S1+ 70 - 130 o-Terphenyl 174 S1+ 70 - 130

Lab Sample ID: 890-1957-A-1-C MS

Matrix: Solid

Analysis Batch: 19782

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 19786

%Rec. Spike MS MS Sample Sample Result Qualifier Added Result Qualifier %Rec Analyte Unit Limits <50.0 U *+ *1 1000 70 - 130 Gasoline Range Organics 1006 98 mg/Kg (GRO)-C6-C10 1000 Diesel Range Organics (Over <50.0 U *+ *1 1197 mg/Kg 120 70 - 130

C10-C28)

	IVIS	IVIS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	71		70 - 130
o-Terphenyl	66	S1-	70 - 130

Job ID: 890-1959-1 Client: WSP USA Inc. Project/Site: Macho Nacho State Com 010H

SDG: 31403720.00

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

Lab Sample ID: 890-1957-A-1-D MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 19782

Prep Type: Total/NA Prep Batch: 19786

	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 *+ *1	998	948.8		mg/Kg		93	70 - 130	6	20	
Diesel Range Organics (Over	<50.0	U *+ *1	998	1145		mg/Kg		115	70 - 130	4	20	

C10-C28)

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	68	S1-	70 - 130
o-Terphenyl	62	S1-	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-19804/1-A Client Sample ID: Method Blank **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 19937

мв мв

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			02/21/22 19:59	1

Lab Sample ID: LCS 880-19804/2-A **Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Soluble**

Analysis Batch: 19937

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	250	246.7		mg/Kg		99	90 - 110	 -

Lab Sample ID: LCSD 880-19804/3-A **Client Sample ID: Lab Control Sample Dup Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 19937

	Spike	LCSD	LCSD				%Rec.		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	254.4		mg/Kg		102	90 _ 110	3	20	

Lab Sample ID: 880-11403-A-1-B MS Client Sample ID: Matrix Spike **Prep Type: Soluble**

Matrix: Solid

Analysis Batch: 19937

	Sample	Sample	Spike		INIO				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	2530		5000	7764		mg/Kg	_	105	90 - 110	

Lab Sample ID: 880-11403-A-1-C MSD

Matrix: Solid Analysis Batch: 19937

Analysis Daton. 19991											
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	2530		5000	7955		mg/Kg		108	90 - 110	2	20

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Prep Type: Soluble

Client Sample ID: Matrix Spike Duplicate

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

SDG: 31403720.00

GC VOA

Prep Batch: 19723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-19723/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 20184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8021B	20192
890-1959-2	BH05	Total/NA	Solid	8021B	20192
MB 880-19723/5-A	Method Blank	Total/NA	Solid	8021B	19723
MB 880-20192/5-A	Method Blank	Total/NA	Solid	8021B	20192
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	8021B	20192
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	20192
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	20192
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	20192

Prep Batch: 20192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	5035	
890-1959-2	BH05	Total/NA	Solid	5035	
MB 880-20192/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-20192/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-20192/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-11351-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-11351-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 20324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	Total BTEX	
890-1959-2	BH05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 19782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8015B NM	19786
890-1959-2	BH05	Total/NA	Solid	8015B NM	19786
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015B NM	19786
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	19786
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	19786
890-1957-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	19786
890-1957-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	19786

Prep Batch: 19786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8015NM Prep	
890-1959-2	BH05	Total/NA	Solid	8015NM Prep	
MB 880-19786/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-19786/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-19786/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1957-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-1957-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

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Client: WSP USA Inc. Job ID: 890-1959-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

GC Semi VOA

Analysis Batch: 19857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Total/NA	Solid	8015 NM	
890-1959-2	BH05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 19804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Soluble	Solid	DI Leach	_
890-1959-2	BH05	Soluble	Solid	DI Leach	
MB 880-19804/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 19937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1959-1	BH02	Soluble	Solid	300.0	19804
890-1959-2	BH05	Soluble	Solid	300.0	19804
MB 880-19804/1-A	Method Blank	Soluble	Solid	300.0	19804
LCS 880-19804/2-A	Lab Control Sample	Soluble	Solid	300.0	19804
LCSD 880-19804/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	19804
880-11403-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	19804
880-11403-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	19804

Job ID: 890-1959-1

SDG: 31403720.00

Client: WSP USA Inc. Project/Site: Macho Nacho State Com 010H

Client Sample ID: BH02 Lab Sample ID: 890-1959-1

Date Collected: 02/14/22 12:23 Matrix: Solid Date Received: 02/16/22 11:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	20192	02/24/22 09:39	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20184	02/25/22 01:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20324	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19857	02/18/22 20:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 18:27	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 21:41	CH	XEN MID

Client Sample ID: BH05 Lab Sample ID: 890-1959-2

Date Collected: 02/14/22 12:44 Matrix: Solid Date Received: 02/16/22 11:05

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	20192	02/24/22 09:39	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	20184	02/25/22 01:38	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			20324	02/25/22 13:43	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			19857	02/18/22 20:05	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	19786	02/18/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			19782	02/18/22 18:48	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	19804	02/18/22 10:28	CH	XEN MID
Soluble	Analysis	300.0		1			19937	02/21/22 21:47	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1959-1 Project/Site: Macho Nacho State Com 010H SDG: 31403720.00

Laboratory: Eurofins Midland

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

Authority	Pr	rogram	Identification Number	Expiration Date
Texas	NI	ELAP	T104704400-21-22	06-30-22
The following analytes the agency does not of		ut the laboratory is not certifie	ed by the governing authority. This list ma	ay include analytes for
Analysis Method	Prep Method	Matrix	Analyte	
Analysis Method 8015 NM	Prep Method	Matrix Solid	Analyte Total TPH	

Method Summary

Client: WSP USA Inc.

Project/Site: Macho Nacho State Com 010H

Job ID: 890-1959-1

SDG: 31403720.00

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

Protocol References:

ASTM = ASTM International

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

XEN MID = Eurofins 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: Macho Nacho State Com 010H

Job ID: 890-1959-1

SDG: 31403720.00

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1959-1	BH02	Solid	02/14/22 12:23	02/16/22 11:05	1
890-1959-2	BH05	Solid	02/14/22 12:44	02/16/22 11:05	1

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www.xenco.com

of

Work Order Comments

Revised Date 051418 Rev 2018 1			6							
			4							
			22 11052	2-16-22	ນ		1 Const	1	WI	MACH!
e) Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Dat	е)	y: (Signatur	Received by: (Signature)		: (Signature)	elinquished by: (Signature)
	s beyond the control sly negotiated.	ice. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control co. 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.	penses incurred by the	es or exp	onsibility for any loss reach sample submi	sume any respondence	and shall not as ch project and a	ost of samples e applied to ea	ilable only for the co arge of \$75.00 will b	ce. Xenco will be b. A minimum ch
	ns and conditions	Circle inethiod(s) and metal(s) to be analyzed ICET / STET OUTC. OF CAN DO AS DO DO DO OF CO OF FOR INFORMATION OF AS DO DO DO OF CO OF FOR INFORMATION OF AS DO DO DO OF CO OF FOR INFORMATION OF AS DO DO DO OF CO OF FOR INFORMATION OF AS DO DO DO OF CO OF FOR INFORMATION OF AS DO DO DO OF CO OF FOR INFORMATION OF AS DO	No Da De Cu	compar	I CEF / OFEF OUTO. OF COA	res a valid purch	amples constitu	uishment of s	Circle interroots) and interrocts to be analyzed.	Signature of this
Na Sr Tl Sn U V Zn 1631 / 245 1 / 7470 / 7471 · Ho	Mo Ni K Se Ag SiO2	Cd Ca Cr Co Cu Fe Pb Mg Mn	As Ba Be B (M Texas 11 Al	BRCRA 13PPM	Ξ,	6020:	010 200.8 / 6020:	otal 200.7 / 6010
*										
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DISCRETE			×	×		12:44	02/114/22	S	5	BH05
DISCRETE			×	×	1	12:23	02/14/22	S	12	BH02
Sample Comments			BTEX (TPH (E	Depth Bunk	Time Sampled	Date Sampled	Matrix	itification	Sample Identification
lab, if received by 4:30pm					er of	Total Containers:	Total	NO NA	Yes	ple Custody Seals:
TAT starts the day receyled by the					20.0	Correction Factor:	Corre	4	Yes	er Custody Seals:
	V	890-1959 Chain of Custody		+-		100 - most	1		(Yes	eived Intact:
			_			Thermometer ID	7	12.4	3.6	perature (°C):
					Yes No	Wet ice: ((Yes No	Temp Blank:		MPLE RECEIPT
					ate:	Due Date:		1	Payton Benner	pler's Name:
						Rush:				Number:
					те П	Routine	.00	31403720.00		ect Number:
Work Order Notes		ANALYSIS REQUEST			Turn Around	Tur	1010H	State Con	Macho Nacho State Com 010H	ect Name:
Other:	Deliverables: EDD	Delivera	om I	wsp.co	Email: Kalei.jennings@wsp.com	Email:			817-683-2503	ne:
ST LARP LiveLIV L	Reporting:Level II Level III LST/UST		Midland, Texas 79705	Midl	City, State ZIP:			ıs 79705	Midland, Texas 79705	State ZIP:
	State of Project:	3300 North A Street Building 1, unit 222 State	North A Street E	3300	Address:		ding 1, unit 2	Street Build	3300 North A Street Building 1, unit 222	ress:
PRP Brownfields RC Superfund L	Program: UST/PST PRP Brownfie	Progran	WSP USA	WSF	Company Name:				WSP USA	pany Name:

Carlsbad NM 88220

1089 N Canal St.

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Eurofins Carlsbad

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Chain of Custody Record

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💸 eurofins

Environment Testing
America

State, Zip. TX, 79701 Midland BH02 (890-1959-1) Phone: 575-988-3199 Fax 575-988-3199 Empty Kit Relinquished by Possible Hazard Identification 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 aboratory 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. BH05 (890-1959-2) Sample Identification - Client ID (Lab ID Macho Nacho State Com 010h 132-704-5440(Tel) 1211 W Florida Ave Client Information (Sub Contract Lab)
Dient Contact: Deliverable Requested I II III IV Other (specify) Shipping/Receiving elinquished by elinquished by elinquished by: oject Name: urofins Environment Testing South Centr Custody Seals Intact:

∆ Yes ∆ No rconfirmed Custody Seal Š 06.91.0 Due Date Requested 2/22/2022 WO# Phone 89000048 PO# TAT Requested (days): Primary Deliverable Rank Date/Time Date/Time roject # Sample Date 2/14/22 2/14/22 Date Mountain 12 44 Mountain Sample 12 23 (C=comp, G=grab) Sample Type Preservation Code: Company Company Matrix Solid Solid Kramer Jessica jessica.kramer@eurofinset com Field Filtered Sample (Yes or No) Accreditations Required (See note):
NELAP - Louisiana NELAP - Texas I Ime Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mon Perform MS/MSD (Yes or No) Special Instructions/QC Requirements 8015MOD_NM/8015NM_S_Prep Full TPH × × Cooler Temperature(s) °C and Other Remarks × × 300_ORGFM_28D/DI_LEACH Chloride 8021B/5035FP_Calc BTEX × × Total_BTEX_GCV × × Analysis Requested 8015MOD_Calc × × State of Origin: New Mexico Carrier Tracking No(s) Date/Time J DI Water
K EDTA Total Number of containers A HCL
B NaOH
C Zn Acetate
D Nitric Acid
E NaHSO4
F MeOH
H Ascorbic Acid COC No 890-628.1 Page: Page 1 of 1 Preservation Codes 890-1959-1 Special Instructions/Note: N None
O - AsNaO2
P Na2O4S
Q - Na2SO3
R - Na2SO3
S H2SO3
S H2SO4
T - TSP Dodecahydrate
U Acetone
V - MCAA
W pH 4-5
Z other (specify) JOZZ Company Company Ver: 06/08/2021 Months

Login Sample Receipt Checklist

 Client: WSP USA Inc.
 Job Number: 890-1959-1

 SDG Number: 31403720.00

List Source: Eurofins Carlsbad

Login Number: 1959 List Number: 1 Creator: Clifton, Cloe

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

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Login Sample Receipt Checklist

Job Number: 890-1959-1

SDG Number: 31403720.00

List Source: Eurofins Midland

List Creation: 02/17/22 01:10 PM

Creator: Kramer, Jessica

Client: WSP USA Inc.

Login Number: 1959

List Number: 2

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	N/A	

<6mm (1/4").

Review your project results through

EOL

Have a Question?

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Released to Imaging: 9/7/2022 2:55:34 PM

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Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2798-1

Laboratory Sample Delivery Group: 03D2024008

Client Project/Site: Macho Nacho #10 CTB

For:

Ensolum 705 W. Wadley Suite 210 Midland, Texas 79701

Attn: Kalei Jennings

RAMER

Authorized for release by: 8/25/2022 2:42:56 PM

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

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

Client: Ensolum
Project/Site: Macho Nacho #10 CTB
Laboratory Job ID: 890-2798-1
SDG: 03D2024008

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Definitions/Glossary

Job ID: 890-2798-1 Client: Ensolum Project/Site: Macho Nacho #10 CTB

SDG: 03D2024008

Qualifiers

GC VOA

Qualifier **Qualifier Description**

Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier Qualifier Description

Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier **Qualifier Description**

F1 MS and/or MSD recovery exceeds control limits.

F2 MS/MSD RPD exceeds control limits

U Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CFU Colony Forming Unit CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac **Dilution Factor**

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" Minimum Detectable Activity (Radiochemistry) MDA MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit Minimum Level (Dioxin) ML MPN Most Probable Number Method Quantitation Limit MQL

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)

Reporting Limit or Requested Limit (Radiochemistry) RL

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

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Case Narrative

Client: Ensolum

Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1

SDG: 03D2024008

Job ID: 890-2798-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2798-1

Receipt

The samples were received on 8/23/2022 8:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA

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

GC Semi VOA

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

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32845 and analytical batch 880-32874 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. The associated samples are: BH02A (890-2798-1), BH05A (890-2798-2), FS01 (890-2798-3), FS02 (890-2798-4), FS03 (890-2798-5), FS04 (890-2798-6), FS05 (890-2798-7) and (890-2798-A-1-E MSD).

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

Lab Sample ID: 890-2798-1

Client Sample Results

Client: Ensolum Job ID: 890-2798-1
Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Client Sample ID: BH02A

Date Collected: 08/22/22 10:30 Date Received: 08/23/22 08:18

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:07	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:07	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:07	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		08/24/22 10:24	08/24/22 16:07	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:07	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		08/24/22 10:24	08/24/22 16:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)			70 - 130			08/24/22 10:24	08/24/22 16:07	1
1,4-Difluorobenzene (Surr)	95		70 - 130			08/24/22 10:24	08/24/22 16:07	1
Method: Total BTEX - Total BTE	X Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			08/24/22 16:56	1
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
<u> </u>	Result <50.0		RL 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/24/22 21:20	
Analyte Total TPH Method: 2015P NM Diocal Pan	<50.0	U			<u>D</u>	Prepared		
Total TPH Method: 8015B NM - Diesel Ran	<50.0	U (GC)	50.0	mg/Kg	<u> </u>		08/24/22 21:20	1
Total TPH Method: 8015B NM - Diesel Ran Analyte	<50.0 ge Organics (D	RO) (GC) Qualifier	50.0	mg/Kg	<u>D</u>	Prepared	08/24/22 21:20 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	<50.0	RO) (GC) Qualifier	50.0	mg/Kg	<u> </u>		08/24/22 21:20	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte	<50.0 ge Organics (D	RO) (GC) Qualifier	50.0	mg/Kg	<u> </u>	Prepared	08/24/22 21:20 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 ge Organics (Di Result <50.0 <50.0	U RO) (GC) Qualifier U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/24/22 08:38 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 12:50 08/24/22 12:50	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	<50.0 ge Organics (Di Result <50.0	U RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 12:50	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	<50.0 ge Organics (Di Result <50.0 <50.0	U RO) (GC) Qualifier U U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared	Analyzed 08/24/22 21:20 Analyzed 08/24/22 12:50 08/24/22 12:50 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	<50.0 ge Organics (D) Result <50.0 <50.0	U RO) (GC) Qualifier U U	50.0 RL 50.0 50.0 50.0	mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/24/22 08:38 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 12:50 08/24/22 12:50 08/24/22 12:50	Dil Face 1 1 1 Dil Face
Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 %Recovery	U RO) (GC) Qualifier U U	50.0 RL 50.0 50.0 50.0 Limits	mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared	Analyzed 08/24/22 21:20 Analyzed 08/24/22 12:50 08/24/22 12:50 Analyzed	Dil Fac
Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 %Recovery 81 89	U RO) (GC) Qualifier U U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 12:50 08/24/22 12:50 Analyzed 08/24/22 12:50	Dil Fac
Total TPH Method: 8015B NM - Diesel Range Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36) Surrogate 1-Chlorooctane o-Terphenyl	<50.0 ge Organics (D) Result <50.0 <50.0 <50.0 %Recovery 81 89 omatography -	U RO) (GC) Qualifier U U Qualifier	50.0 RL 50.0 50.0 50.0 Limits 70 - 130	mg/Kg Unit mg/Kg	<u> </u>	Prepared 08/24/22 08:38 08/24/22 08:38 08/24/22 08:38 Prepared 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 12:50 08/24/22 12:50 Analyzed 08/24/22 12:50	Dil Fac

Client Sample ID: BH05A

Date Collected: 08/22/22 10:35 Date Received: 08/23/22 08:18

Sample Depth: 2

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:38	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:38	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:38	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		08/24/22 10:24	08/24/22 16:38	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 16:38	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		08/24/22 10:24	08/24/22 16:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130			08/24/22 10:24	08/24/22 16:38	

Eurofins Carlsbad

Lab Sample ID: 890-2798-2

Matrix: Solid

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Job ID: 890-2798-1

Client: Ensolum SDG: 03D2024008 Project/Site: Macho Nacho #10 CTB

Client Sample ID: BH05A Lab Sample ID: 890-2798-2

Date Collected: 08/22/22 10:35 Matrix: Solid Date Received: 08/23/22 08:18

Sample Depth: 2

Method: 8021B - Volatile Organic Compound	s (GC) (Continued)
---	--------------------

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98	70 - 130	08/24/22 10:24	08/24/22 16:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403 U	0.00403	ma/Ka			08/24/22 16:56	1

Mothod: 9015 NM - Diocal Pango	Organice (DPO) (CC)

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	51.1	49.9	ma/Ka			08/24/22 21:20	1

A	D: 1 D	•	(DDO) (
Method: 8015B NM	- Diesel Range	Organics	(DKO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 13:12	1
Diesel Range Organics (Over C10-C28)	51.1		49.9	mg/Kg		08/24/22 08:38	08/24/22 13:12	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 13:12	1
0	0/ 5	O	1 : : :			D	A I	D# E

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	79	70 - 130	08/24/22 08:38	08/24/22 13:12	1
o-Terphenyl	85	70 - 130	08/24/22 08:38	08/24/22 13:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.15	4.99	mg/Kg		_	08/24/22 21:56	1

Client Sample ID: FS01 Lab Sample ID: 890-2798-3 **Matrix: Solid**

Date Collected: 08/22/22 12:00 Date Received: 08/23/22 08:18

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		08/24/22 10:24	08/24/22 17:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130			08/24/22 10:24	08/24/22 17:04	1
1,4-Difluorobenzene (Surr)	93		70 - 130			08/24/22 10:24	08/24/22 17:04	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	< 0.00399	U	0.00399	ma/Ka			08/24/22 16:56	1

Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0 U	50.0	mg/Kg			08/24/22 21:20	1

Lab Sample ID: 890-2798-3

Client Sample Results

Client: Ensolum Job ID: 890-2798-1 Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Client Sample ID: FS01

Date Collected: 08/22/22 12:00 Date Received: 08/23/22 08:18

Sample Depth: 1

Method: 8015B NM - Diesel Rang	, ,	, , ,						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 13:34	1
(GRO)-C6-C10								
Diesel Range Organics (Over	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 13:34	1
C10-C28)								
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 13:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			08/24/22 08:38	08/24/22 13:34	1
o-Terphenyl	84		70 - 130			08/24/22 08:38	08/24/22 13:34	1
- Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.97		4.97	mg/Kg			08/24/22 22:03	1

Lab Sample ID: 890-2798-4 **Client Sample ID: FS02** Matrix: Solid

Date Collected: 08/22/22 12:05 Date Received: 08/23/22 08:18

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 17:30	
Toluene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 17:30	
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 17:30	
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 17:30	
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 17:30	
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 17:30	,
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130			08/24/22 10:24	08/24/22 17:30	
1,4-Difluorobenzene (Surr)	124		70 - 130			08/24/22 10:24	08/24/22 17:30	1
- Method: Total BTEX - Total BTEX	Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/24/22 16:56	1
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Method: 8015 NM - Diesel Range Analyte	•	O) (GC) Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
•	•	Qualifier	RL 49.9	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/24/22 21:20	
Analyte Total TPH	Result <49.9	Qualifier U			<u>D</u>	Prepared		
Analyte Total TPH Method: 8015B NM - Diesel Rang	Result <49.9	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte	Result <49.9	Qualifier U RO) (GC) Qualifier	49.9	mg/Kg			08/24/22 21:20	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <49.9 ge Organics (D Result	Qualifier U RO) (GC) Qualifier U	49.9	mg/Kg		Prepared	08/24/22 21:20 Analyzed	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10	Result <49.9 ge Organics (D) Result <49.9	Qualifier U RO) (GC) Qualifier U	49.9 RL 49.9	mg/Kg Unit mg/Kg		Prepared 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 13:55	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 13:55 08/24/22 13:55	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28) Oll Range Organics (Over C28-C36)	Result	Qualifier U RO) (GC) Qualifier U U	49.9 RL 49.9 49.9 49.9	mg/Kg Unit mg/Kg mg/Kg		Prepared 08/24/22 08:38 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 13:55 08/24/22 13:55	Dil Fac

Job ID: 890-2798-1

Client: Ensolum SDG: 03D2024008 Project/Site: Macho Nacho #10 CTB

Client Sample ID: FS02 Lab Sample ID: 890-2798-4

Date Collected: 08/22/22 12:05 Matrix: Solid Date Received: 08/23/22 08:18

Sample Depth: 1

Method: 300.0 - Anions, Ion Chroma	tography -	Soluble						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.11		4.97	mg/Kg			08/24/22 22:11	1

Client Sample ID: FS03 Lab Sample ID: 890-2798-5

Date Collected: 08/22/22 12:10 Date Received: 08/23/22 08:18

Sample Depth: 1

o-Terphenyl

Analyte

Chloride

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	< 0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 17:56	1
Toluene	< 0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 17:56	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 17:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 17:56	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		08/24/22 10:24	08/24/22 17:56	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		08/24/22 10:24	08/24/22 17:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130			08/24/22 10:24	08/24/22 17:56	1
1,4-Difluorobenzene (Surr)	95		70 - 130			08/24/22 10:24	08/24/22 17:56	1
Method: Total BTEX - Total BTEX		0 115	5 .		_			D.1 F
Analyte		Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			08/24/22 16:56	
-								
Method: 8015 NM - Diesel Range Analyte			RL	Unit	D	Prepared	Analyzed	Dil Fac
Method: 8015 NM - Diesel Range Analyte Total TPH		Qualifier	RL 50.0	Unit mg/Kg	<u>D</u>	Prepared	Analyzed 08/24/22 21:20	Dil Fac
Analyte	Result <50.0	Qualifier U			<u>D</u>	Prepared Prepared		1
Analyte Total TPH Method: 8015B NM - Diesel Rang	Result <50.0	Qualifier U RO) (GC) Qualifier	50.0	mg/Kg		<u> </u>	08/24/22 21:20	Dil Fac Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics	Result <50.0 Ge Organics (DI Result	Qualifier U RO) (GC) Qualifier U	50.0	mg/Kg		Prepared	08/24/22 21:20 Analyzed	1
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over	Result <50.0 Ge Organics (Dige Result <50.0	Qualifier U RO) (GC) Qualifier U	50.0 RL 50.0	mg/Kg Unit mg/Kg		Prepared 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 14:17	Dil Fac
Analyte Total TPH Method: 8015B NM - Diesel Rang Analyte Gasoline Range Organics (GRO)-C6-C10 Diesel Range Organics (Over C10-C28)	Result	Qualifier U RO) (GC) Qualifier U U	50.0 RL 50.0 50.0	mg/Kg Unit mg/Kg mg/Kg		Prepared 08/24/22 08:38	08/24/22 21:20 Analyzed 08/24/22 14:17 08/24/22 14:17	1 Dil Fac

70 - 130

RL

5.00

Unit

mg/Kg

Result Qualifier

25.8

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08/24/22 08:38

Prepared

D

08/24/22 14:17

Analyzed 08/24/22 22:19

Dil Fac

Method: 300.0 - Anions, Ion Chromatography - Soluble

Client: Ensolum Job ID: 890-2798-1
Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Client Sample ID: FS04 Lab Sample ID: 890-2798-6

Date Collected: 08/22/22 12:35
Date Received: 08/23/22 08:18

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 18:22	1
Toluene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 18:22	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 18:22	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		08/24/22 10:24	08/24/22 18:22	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		08/24/22 10:24	08/24/22 18:22	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		08/24/22 10:24	08/24/22 18:22	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130			08/24/22 10:24	08/24/22 18:22	1
1,4-Difluorobenzene (Surr)	94		70 - 130			08/24/22 10:24	08/24/22 18:22	1
Method: Total BTEX - Total BTEX	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			08/24/22 16:56	1
Method: 8015 NM - Diesel Range	Organics (DP)	O) (GC)						
Analyte	•	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			08/24/22 21:20	1
Method: 8015B NM - Diesel Rang	ge Organics (D	RO) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 14:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 14:38	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 14:38	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130			08/24/22 08:38	08/24/22 14:38	1
o-Terphenyl	85		70 - 130			08/24/22 08:38	08/24/22 14:38	1
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Michiga, 500.0 - Among, ion onit								
Analyte	• • •	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac

Client Sample ID: FS05 Lab Sample ID: 890-2798-7

Date Collected: 08/22/22 12:45 Date Received: 08/23/22 08:18

Sample Depth: 1

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:07	1
Toluene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:07	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:07	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 20:07	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		08/24/22 10:24	08/24/22 20:07	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		08/24/22 10:24	08/24/22 20:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130			08/24/22 10:24	08/24/22 20:07	1

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Matrix: Solid

Client Sample Results

Client: Ensolum Job ID: 890-2798-1
Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Client Sample ID: FS05 Lab Sample ID: 890-2798-7

Date Collected: 08/22/22 12:45
Date Received: 08/23/22 08:18
Matrix: Solid

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1,4-Difluorobenzene (Surr)	92		70 - 130			08/24/22 10:24	08/24/22 20:07	
· Method: Total BTEX - Total BTE)	(Calculation							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/24/22 16:56	
Method: 8015 NM - Diesel Range	Organics (DR	O) (GC)						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa
Total TPH	<49.9	U	49.9	mg/Kg			08/24/22 21:20	-
5 5	<49.9	Qualifier U	49.9	Unit mg/Kg	<u>D</u>	Prepared 08/24/22 08:38	Analyzed 08/24/22 15:00	Dil Fa
Gasoline Range Organics (GRO)-C6-C10					=			Dii Fa
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 15:00	
Oll Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		08/24/22 08:38	08/24/22 15:00	
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fa
1-Chlorooctane	85		70 - 130			08/24/22 08:38	08/24/22 15:00	
o-Terphenyl	92		70 - 130			08/24/22 08:38	08/24/22 15:00	
Method: 300.0 - Anions, Ion Chro	omatography -	Soluble						
Method: 300.0 - Anions, Ion Chro Analyte		Soluble Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fa

Surrogate Summary

Job ID: 890-2798-1 Client: Ensolum Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Accepta
		BFB1	DFBZ1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
890-2798-1	BH02A	110	95	
890-2798-2	BH05A	93	98	
890-2798-3	FS01	101	93	
890-2798-4	FS02	83	124	
890-2798-5	FS03	111	95	
890-2798-6	FS04	112	94	
890-2798-7	FS05	105	92	
890-2802-A-1-A MS	Matrix Spike	110	103	
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98	
LCS 880-32835/1-A	Lab Control Sample	100	101	
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107	
MB 880-32835/5-A	Method Blank	80	88	

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid Prep Type: Total/NA

				Percent Surrogate Recovery (Acceptance Limits)
		1CO1	OTPH1	
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	
880-18436-A-1-E MS	Matrix Spike	82	81	
880-18436-A-1-F MSD	Matrix Spike Duplicate	83	82	
890-2798-1	BH02A	81	89	
890-2798-2	BH05A	79	85	
890-2798-3	FS01	78	84	
890-2798-4	FS02	85	94	
890-2798-5	FS03	83	90	
890-2798-6	FS04	78	85	
890-2798-7	FS05	85	92	
LCS 880-32816/2-A	Lab Control Sample	95	104	
LCSD 880-32816/3-A	Lab Control Sample Dup	105	117	
MB 880-32816/1-A	Method Blank	93	107	

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

Client: Ensolum Job ID: 890-2798-1
Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A

Matrix: Solid Analysis Batch: 32815 Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 32835

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		08/24/22 10:24	08/24/22 13:56	1

MB MB

Surrogate	%Recovery C	Qualifier Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80	70 - 130	08/24/22 10:24	08/24/22 13:56	1
1,4-Difluorobenzene (Surr)	88	70 - 130	08/24/22 10:24	08/24/22 13:56	1

Lab Sample ID: LCS 880-32835/1-A

Matrix: Solid

Analysis Batch: 32815

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 32835

LCS LCS Spike Analyte Added Result Qualifier Unit %Rec Limits Benzene 0.100 0.09463 mg/Kg 95 70 - 130 Toluene 0.100 0.09936 mg/Kg 99 70 - 130 0.100 0.09277 Ethylbenzene mg/Kg 93 70 - 130 0.200 0.1944 97 70 - 130 m-Xylene & p-Xylene mg/Kg 0.100 0.1080 70 - 130 o-Xylene mg/Kg 108

LCS LCS

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

Lab Sample ID: LCSD 880-32835/2-A

Matrix: Solid

Analysis Batch: 32815

Client Sample ID: Lab Control Sample Dup

Prep Batch: 32835

Prep Batch: 32835

	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene	0.100	0.1047		mg/Kg		105	70 - 130	10	35	
Toluene	0.100	0.1049		mg/Kg		105	70 - 130	5	35	
Ethylbenzene	0.100	0.1031		mg/Kg		103	70 - 130	11	35	
m-Xylene & p-Xylene	0.200	0.2127		mg/Kg		106	70 - 130	9	35	
o-Xylene	0.100	0.1178		mg/Kg		118	70 - 130	9	35	

LCSD LCSD

Surrogate	%Recovery Qualifier	Limits
4-Bromofluorobenzene (Surr)	104	70 - 130
1,4-Difluorobenzene (Surr)	107	70 - 130

Lab Sample ID: 890-2802-A-1-A MS

Matrix: Solid

Analysis Batch: 32815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32835

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	<0.00201	U	0.100	0.09061		mg/Kg	_	90	70 - 130	
Toluene	< 0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130	

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QC Sample Results

Client: Ensolum Job ID: 890-2798-1 SDG: 03D2024008 Project/Site: Macho Nacho #10 CTB

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

Lab Sample ID: 890-2802-A-1-A MS

Matrix: Solid

Analysis Batch: 32815

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32835

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130	
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130	
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130	

MS MS

Surrogate	%Recovery Qualifier	r Limits
4-Bromofluorobenzene (Surr)	110	70 - 130
1,4-Difluorobenzene (Surr)	103	70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 32835

Lab Sample ID: 890-2802-A-1-B MSD **Matrix: Solid**

Analysis Batch: 32815

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-32816/1-A

Matrix: Solid

Analysis Batch: 32812

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

Prep Batch: 32816

	MB	MB						
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/24/22 08:38	08/24/22 10:43	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	08/24/22 08:38	08/24/22 10:43	1
o-Terphenyl	107		70 - 130	08/24/22 08:38	08/24/22 10:43	1

Lab Sample ID: LCS 880-32816/2-A

Matrix: Solid

Analysis Batch: 32812

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

Prep Batch: 32816

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	1000	1002		mg/Kg		100	70 - 130	
(GRO)-C6-C10								
Diesel Range Organics (Over	1000	880.5		mg/Kg		88	70 - 130	
C10-C28)								

Client: Ensolum Job ID: 890-2798-1 Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

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

Lab Sample ID: LCS 880-32816/2-A **Client Sample ID: Lab Control Sample**

Matrix: Solid Prep Type: Total/NA Analysis Batch: 32812 Prep Batch: 32816

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: LCSD 880-32816/3-A Client Sample ID: Lab Control Sample Dup

Matrix: Solid Prep Type: Total/NA Analysis Batch: 32812 Prep Batch: 32816

Spike LCSD LCSD %Rec RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Gasoline Range Organics 1000 1106 111 70 - 130 10 20 mg/Kg (GRO)-C6-C10 Diesel Range Organics (Over 1000 1016 mg/Kg 102 70 - 13014 20 C10-C28)

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	117		70 - 130

Lab Sample ID: 880-18436-A-1-E MS Client Sample ID: Matrix Spike

Matrix: Solid Prep Type: Total/NA

Analysis Batch: 32812 Prep Batch: 32816 Sample Sample Spike MS MS

									,	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics	<49.9	U	999	1040		mg/Kg		102	70 - 130	
(GRO)-C6-C10										
Diesel Range Organics (Over	<49.9	U	999	743.4		mg/Kg		70	70 - 130	
C10-C28)										

MS MS %Recovery Qualifier Limits Surrogate 70 - 130 1-Chlorooctane 82 o-Terphenyl 81 70 - 130

Lab Sample ID: 880-18436-A-1-F MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid Prep Type: Total/NA Analysis Batch: 32812 Prep Batch: 32816

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1139		mg/Kg		112	70 - 130	9	20	
Diesel Range Organics (Over C10-C28)	<49.9	U	998	744.0		mg/Kg		70	70 - 130	0	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	82		70 - 130

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Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Prep Type: Soluble

Prep Type: Soluble

Client Sample ID: BH02A

Client Sample ID: BH02A

Prep Type: Soluble

Prep Type: Soluble

QC Sample Results

Client: Ensolum Job ID: 890-2798-1
Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A

Matrix: Solid

Analysis Batch: 32874

MB MB

 Analyte
 Result Chloride
 Qualifier
 RL Vinit
 Unit Mg/Kg
 Prepared Prepared No.8/24/22 21:08
 Dil Fac Dil Fac No.8/24/22 21:08
 Dil Fac No.8/24/22

Lab Sample ID: LCS 880-32845/2-A

Matrix: Solid

Analysis Batch: 32874

Spike LCS LCS %Rec Added Analyte Result Qualifier Unit D %Rec Limits Chloride 250 234.1 mg/Kg 94 90 - 110

Lab Sample ID: LCSD 880-32845/3-A

Matrix: Solid

Analysis Batch: 32874

LCSD LCSD %Rec RPD Spike Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 250 234.4 mg/Kg 90 - 110

Lab Sample ID: 890-2798-1 MS

Matrix: Solid

Analysis Batch: 32874

Spike MS MS Sample Sample %Rec Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits Chloride 22.4 F1 F2 248 278.9 103 90 - 110 mg/Kg

Lab Sample ID: 890-2798-1 MSD

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Matrix: Solid

Analysis Batch: 32874

Sample Sample Spike MSD MSD %Rec RPD Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 22.4 F1 F2 248 213.1 F1 F2 mg/Kg 77 90 - 110 27 20

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Client: Ensolum

Project/Site: Macho Nacho #10 CTB

SDG: 03D2024008

GC VOA

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8021B	32835
890-2798-2	BH05A	Total/NA	Solid	8021B	32835
890-2798-3	FS01	Total/NA	Solid	8021B	32835
890-2798-4	FS02	Total/NA	Solid	8021B	32835
890-2798-5	FS03	Total/NA	Solid	8021B	32835
890-2798-6	FS04	Total/NA	Solid	8021B	32835
890-2798-7	FS05	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	5035	
890-2798-2	BH05A	Total/NA	Solid	5035	
890-2798-3	FS01	Total/NA	Solid	5035	
890-2798-4	FS02	Total/NA	Solid	5035	
890-2798-5	FS03	Total/NA	Solid	5035	
890-2798-6	FS04	Total/NA	Solid	5035	
890-2798-7	FS05	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	Total BTEX	
890-2798-2	BH05A	Total/NA	Solid	Total BTEX	
890-2798-3	FS01	Total/NA	Solid	Total BTEX	
890-2798-4	FS02	Total/NA	Solid	Total BTEX	
890-2798-5	FS03	Total/NA	Solid	Total BTEX	
890-2798-6	FS04	Total/NA	Solid	Total BTEX	
890-2798-7	FS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8015B NM	32816
890-2798-2	BH05A	Total/NA	Solid	8015B NM	32816
890-2798-3	FS01	Total/NA	Solid	8015B NM	32816
890-2798-4	FS02	Total/NA	Solid	8015B NM	32816
890-2798-5	FS03	Total/NA	Solid	8015B NM	32816
890-2798-6	FS04	Total/NA	Solid	8015B NM	32816
890-2798-7	FS05	Total/NA	Solid	8015B NM	32816
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015B NM	32816
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32816

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Client: Ensolum Job ID: 890-2798-1 Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

GC Semi VOA (Continued)

Analysis Batch: 32812 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32816
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	32816
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32816

Prep Batch: 32816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8015NM Prep	
890-2798-2	BH05A	Total/NA	Solid	8015NM Prep	
890-2798-3	FS01	Total/NA	Solid	8015NM Prep	
890-2798-4	FS02	Total/NA	Solid	8015NM Prep	
890-2798-5	FS03	Total/NA	Solid	8015NM Prep	
890-2798-6	FS04	Total/NA	Solid	8015NM Prep	
890-2798-7	FS05	Total/NA	Solid	8015NM Prep	
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Total/NA	Solid	8015 NM	
890-2798-2	BH05A	Total/NA	Solid	8015 NM	
890-2798-3	FS01	Total/NA	Solid	8015 NM	
890-2798-4	FS02	Total/NA	Solid	8015 NM	
890-2798-5	FS03	Total/NA	Solid	8015 NM	
890-2798-6	FS04	Total/NA	Solid	8015 NM	
890-2798-7	FS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

 Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Soluble	Solid	DI Leach	Prep Batch
890-2798-2	BH05A	Soluble	Solid	DI Leach	
890-2798-3	FS01	Soluble	Solid	DI Leach	
890-2798-4	FS02	Soluble	Solid	DI Leach	
890-2798-5	FS03	Soluble	Solid	DI Leach	
890-2798-6	FS04	Soluble	Solid	DI Leach	
890-2798-7	FS05	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2798-1 MS	BH02A	Soluble	Solid	DI Leach	
890-2798-1 MSD	BH02A	Soluble	Solid	DI Leach	

Analysis Batch: 32874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-1	BH02A	Soluble	Solid	300.0	32845
890-2798-2	BH05A	Soluble	Solid	300.0	32845
890-2798-3	FS01	Soluble	Solid	300.0	32845

Client: Ensolum
Project/Site: Macho Nacho #10 CTB
SDG: 03D2024008

HPLC/IC (Continued)

Analysis Batch: 32874 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2798-4	FS02	Soluble	Solid	300.0	32845
890-2798-5	FS03	Soluble	Solid	300.0	32845
890-2798-6	FS04	Soluble	Solid	300.0	32845
890-2798-7	FS05	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2798-1 MS	BH02A	Soluble	Solid	300.0	32845
890-2798-1 MSD	BH02A	Soluble	Solid	300.0	32845

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SDG: 03D2024008

Client Sample ID: BH02A

Lab Sample ID: 890-2798-1

Matrix: Solid

Date Collected: 08/22/22 10:30 Date Received: 08/23/22 08:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 16:07	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 12:50	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 21:32	SMC	EET MID

Client Sample ID: BH05A Lab Sample ID: 890-2798-2 Date Collected: 08/22/22 10:35

Matrix: Solid

Date Received: 08/23/22 08:18

Batch Dil Initial Final Batch Batch Prepared Prep Type Туре Method Run Factor Amount Amount Number or Analyzed Analyst Lab Prep 5035 Total/NA 4.96 g 32835 08/24/22 10:24 MR EET MID 5 mL Total/NA 8021B 08/24/22 16:38 **EET MID** Analysis 1 32815 MR Total/NA Total BTEX 32869 08/24/22 16:56 SM Analysis 1 **EET MID** Total/NA Analysis 8015 NM 32876 08/24/22 21:20 SM **EET MID** Total/NA 32816 Prep 8015NM Prep 10.02 g 08/24/22 08:38 DM EET MID 10 mL

Client Sample ID: FS01 Lab Sample ID: 890-2798-3 Date Collected: 08/22/22 12:00 **Matrix: Solid**

5.01 g

32812

32845

32874

50 mL

08/24/22 13:12

08/24/22 10:53

08/24/22 21:56

SM

SMC

SMC

Date Received: 08/23/22 08:18

Analysis

Leach

Analysis

8015B NM

DI Leach

300.0

Total/NA

Soluble

Soluble

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 17:04	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 13:34	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:03	SMC	EET MID

Client Sample ID: FS02 Lab Sample ID: 890-2798-4

Date Collected: 08/22/22 12:05 Date Received: 08/23/22 08:18

Г										
	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 17:30	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID

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Matrix: Solid

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EET MID

EET MID

EET MID

Client: Ensolum

Job ID: 890-2798-1 Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Client Sample ID: FS02 Lab Sample ID: 890-2798-4

Date Collected: 08/22/22 12:05 Matrix: Solid Date Received: 08/23/22 08:18

	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			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 13:55	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:11	SMC	EET MID

Client Sample ID: FS03 Lab Sample ID: 890-2798-5

Date Collected: 08/22/22 12:10 **Matrix: Solid**

Date Received: 08/23/22 08:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 17:56	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 14:17	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:19	SMC	EET MID

Client Sample ID: FS04 Lab Sample ID: 890-2798-6

Date Collected: 08/22/22 12:35 Date Received: 08/23/22 08:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 18:22	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 14:38	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:43	SMC	EET MID

Client Sample ID: FS05 Lab Sample ID: 890-2798-7

Date Collected: 08/22/22 12:45 Date Received: 08/23/22 08:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 20:07	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32869	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32876	08/24/22 21:20	SM	EET MID
Total/NA Total/NA	Prep Analysis	8015NM Prep 8015B NM		1	10.03 g	10 mL	32816 32812	08/24/22 08:38 08/24/22 15:00	DM SM	EET MID EET MID

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Matrix: Solid

Matrix: Solid

Lab Chronicle

Client: Ensolum Job ID: 890-2798-1 Project/Site: Macho Nacho #10 CTB SDG: 03D2024008

Client Sample ID: FS05 Lab Sample ID: 890-2798-7

Date Collected: 08/22/22 12:45 Matrix: Solid Date Received: 08/23/22 08:18

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:51	SMC	EET MID

Laboratory References:

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Macho Nacho #10 CTB
SDG: 03D2024008

Laboratory: Eurofins Midland

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

Authority	Pr	ogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704400-22-24	06-30-23
The following analytes	are included in this report, bu	it the laboratory is not certific	ed by the governing authority. This list ma	av include analytes for
the agency does not of	fer certification.	•	, , ,	·, ·····
the agency does not of Analysis Method	fer certification . Prep Method	Matrix	Analyte	,
0 ,		Matrix Solid	, , ,	

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Method Summary

Client: Ensolum

Project/Site: Macho Nacho #10 CTB

Job ID: 890-2798-1 SDG: 03D2024008

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

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

Eurofins Carlsbad

3

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10

12

4

Sample Summary

Client: Ensolum

890-2798-6

890-2798-7

Project/Site: Macho Nacho #10 CTB

FS04

FS05

Job ID: 890-2798-1 SDG: 03D2024008

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2798-1	BH02A	Solid	08/22/22 10:30	08/23/22 08:18	2
890-2798-2	BH05A	Solid	08/22/22 10:35	08/23/22 08:18	2
890-2798-3	FS01	Solid	08/22/22 12:00	08/23/22 08:18	1
890-2798-4	FS02	Solid	08/22/22 12:05	08/23/22 08:18	1
890-2798-5	FS03	Solid	08/22/22 12:10	08/23/22 08:18	1

Solid

Solid

08/22/22 12:35

08/22/22 12:45

08/23/22 08:18

08/23/22 08:18

3

4

6

0

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. .

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114

Relinquished by: (Signature)

Received by: (Signature)

8

\$13 CE: SE- 8

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Revised Date 08/25/2020 Rev 2020 2

eurofins

Chain of Custody

EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296	hidland, TX (432) 704-5440, San Antonio, TX (210) 509-3334	Houston, TX (281) 240-4200. Dallas, TX (214) 902-0300	
6) 794-1296	10) 509-3334) 902-0300	•

Work Order No:

		Orace			
Pres	EQUEST	ANALYSIS REC	Turn Around	Macho Nacho #10 CTB	Project Name:
	Deliverables: EDD ADaPT	solum.com	Email: kjennings@ensolum.com	817-683-2503	Phone:
T/UST 🗌	Reporting: Level II Level III PST/UST	Midland, TX 79701	City, State ZIP:	Midland, TX 79701	City, State ZIP:
	State of Project:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400	Address:
nfields 🗌	Program: UST/PST PRP Brownfields	Ensolum, LLC	Company Name:	Ensolum, LLC	Company Name:
Comment	Work Order Commen	Kalei Jennigns	Bill to: (if different)	Kalei Jennings	Project Manager:
Page	www.xenco.com				
		Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199	Hobbs,		

Sampler's Name:

Project Location:

SAMPLE RECEIPT

Project Number

											www.xenco.com	COIII rage / OI
roject Manager:	Kalei Jennings				Bill to: (if different)	rent)	Kalei	Kalei Jennigns	gns		Work On	Work Order Comments
	Ensolum, LLC				Company Name	ıme:	Enso	Ensolum, LLC	С		Program: UST/PST PRP Brownfields RRC	3rownfields ☐ RRC ☐ Superfund ☐
	601 N Marienfeld St Suite 400	eld St S	uite 400		Address:		601 1	V Marie	601 N Marienfeld St Suite 400	400	State of Project:	
le ZIP:	Midland, TX 79701	9701			City, State ZIP	P:	Midla	ınd, TX	Midland, TX 79701		Reporting: Level II 🏻 Level III 🔲 PST/UST 🗎 TRRP 🔲	PST/UST TRRP Level IV
	817-683-2503			Email:	Email: kjennings@ensolum.com	ensolu	m.com				Deliverables: EDD A	ADaPT Other:
roject Name:	Macho Nacho #10 CTB	cho #1	0 CTB	Turn	Turn Around					ANALYSIS REQUEST	QUEST	Preservative Codes
roject Number:	03D2	03D2024008	8	☐ Routine	✓ Rush	Pres. Code						None: NO DI Water: H ₂ O
roject Location:				Due Date:	24 Hr					_		Cool: Cool MeOH: Me
ampler's Name:	Conn	Conner Shore	Те	TAT starts the	TAT starts the day received by	ъ						HCL: HC HNO ₃ : HN
Ŏ #				the lab, if rec	the lab, if received by 4:30pm	_						H ₂ S0 ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank:	Blank:	Yes No	Wet Ice:	ON (A)	nete	.0)					H ₃ PO ₄ : HP
amples Received Intact:	tact: Yes	Š	Thermometer ID:	ter ID:	,00-MD	ran	300					NaHSO ₄ : NABIS
cooler Custody Seals:	Yes No	(N/A)	Correction Factor:	Factor:	10.0	L	PA:			890-2/98 Chain	of Custody	Na ₂ S ₂ O ₃ : NaSO ₃
ample Custody Seals:	s: Yes No	AIR	Temperature Reading:	re Reading:	.4	_	S (E		ı	_		Zn Acetate+NaOH: Zn
otal Containers:			Corrected	Corrected Temperature:	1.6	L	RIDI	015	802			NaOn Ascorbic Acid. On O
Sample Identification	ification	Matrix	Date Sampled	Time Sampled	Depth Grab/	ab/ # of mp Cont	CHLOR	TPH (8	втех (Sample Comments
вно2А	Α	S	8.22.22	1030	2' G		×	×	×			NAPP2132756247
BH05A	A	S	8.22.22	1035	2' G		×	×	×			
FS01		S	8.22.22	1200	1' C &		×	×	×			
FS02		S	8.22.22	1205	1' CE		×	×	×			
FS03	3	S	8.22.22	1210	1' 68		×	×	×			
FS04		S	8.22.22	1235	1' C &	1	×	×	×			
E\$05		S	8 22 22	1245	D)		*	*	*			
	,				7							
		1			S							
1						\vdash						
Total 200.7 / 6010	10 200.8 / 6020:	020:	_	8RCRA 13F	13PPM Texas 11	11 <u>A</u>	Sb As	s Ba	Be B Cd	Ca Cr Co Cu Fe Pb	Mg Mn Mo Ni K Se Ag SiO ₂	D ₂ Na Sr Tl Sn ∪ V Zn
ircle Method(s) and Metal(s) to be analyzed	d Metal(s) to b	e analy		TCLP / S	0	8RCRA	11	Sb As Ba Be	Be C	Cd Cr Co Cu Pb Mn Mo		Hg: 1631 / 245.1 / 7470 / 7471
ice: Signature of this do	ocument and reling	uishment	of samples cor	nstitutes a valid	purchase order	from chen	t compa	ny to Eu	rofins Xe	otice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors	. It assigns standard terms and conditions	ns .
service. Eurofins Xenco Eurofins Xenco. A minin	mum charge of \$85.	for the co	st of samples a applied to eac	ind shall not ass h project and a c	ume any respon harge of \$5 for o	sibility for	r any los: ple subm	itted to	Eurofins !	by the client if such losses : ut not analyzed. These term:	service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control. Eurofins Xenco, A minimum charge of \$85.00 will be enforced unless previously negotiated.	ed.

Login Sample Receipt Checklist

 Client: Ensolum
 Job Number: 890-2798-1

 SDG Number: 03D2024008

List Source: Eurofins Carlsbad

Login Number: 2798 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	

103

2

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14

<6mm (1/4").

Login Sample Receipt Checklist

Client: Ensolum Job Number: 890-2798-1 SDG Number: 03D2024008

List Source: Eurofins Midland

Login Number: 2798 List Number: 2 List Creation: 08/24/22 10:58 AM Creator: Rodriguez, Leticia

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



APPENDIX E

NMOCD Notifications

From: Beauvais, Charles R
To: Kalei Jennings

Subject: FW: [EXTERNAL] (Extension Denied) - Macho Nacho (Incident Number NAPP2132756247)

Date: Tuesday, April 12, 2022 12:46:38 PM

Attachments: <u>image003.png</u>

[**EXTERNAL EMAIL**]

Per our discussion.

From: Esparza, Brittany <Brittany.Esparza@conocophillips.com>

Sent: Tuesday, April 12, 2022 7:56 AM

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

Subject: FW: [EXTERNAL](Extension Denied) - Macho Nacho (Incident Number NAPP2132756247)

Charles, not sure if you saw this one or not but it was denied.

Thank you,

Brittany N. Esparza

Brittany N. Esparza | Environmental Technician, Permian | ConocoPhillips

O: 432-221-0398 | **C**: 432-349-1911 | 1CC-331 Midland, Texas

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

Sent: Friday, April 8, 2022 4:38 PM

To: Beauvais, Charles R < <u>Charles.R.Beauvais@conocophillips.com</u>>

Cc: Esparza, Brittany < <u>Brittany.Esparza@conocophillips.com</u>>; Fejervary Morena, Gustavo A < <u>G.Fejervary@conocophillips.com</u>>; Bratcher, Mike, EMNRD < <u>mike.bratcher@state.nm.us</u>>;

Hensley, Chad, EMNRD < Chad. Hensley@state.nm.us>; Velez, Nelson, EMNRD

<<u>Nelson.Velez@state.nm.us</u>>; Nobui, Jennifer, EMNRD <<u>Jennifer.Nobui@state.nm.us</u>>

Subject: [EXTERNAL] (Extension Denied) - Macho Nacho (Incident Number NAPP2132756247)

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 #NAPP2132756247

Charles,

An extension for this release has already been granted. A remediation plan for this incident was due on 3/10/2022. Your request for another extension is **denied**. 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 < Charles R < Charles.R.Beauvais@conocophillips.com

Sent: Friday, April 8, 2022 3:00 PM

To: Hensley, Chad, EMNRD < <u>Chad.Hensley@state.nm.us</u>>; EMNRD-OCD-District1spills < <u>EMNRD-OCD-District1spills@state.nm.us</u>>; Esparza, Brittany < <u>Brittany.Esparza@conocophillips.com</u>>; Fejervary Morena, Gustavo A < <u>G.Fejervary@conocophillips.com</u>>

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

Subject: [EXTERNAL] Extension Request- Macho Nacho (Incident Number NAPP2132756247)

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 10, 2022 deadline for submitting a Remediation Work Plan or Closure Report required in 19.15.29.12.B.(1) NMAC for the Macho Nacho State Com 010 CTB (Incident Number NAPP2132756247). The release was discovered on November 11, 2021 and remediation activities are ongoing. In addition, COP intends to drill a depth to water boring to confirm the closure criteria at the Site. 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 a 90-day extension of the deadline until July 10, 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.



From: Beauvais, Charles R
To: Kalei Jennings

Subject: FW: Extension Request- Macho Nacho (Incident Number NAPP2132756247)

Date: Tuesday, April 12, 2022 12:48:03 PM

Attachments: image001.png

Macho Nacho Table (NAPP2132756247).pdf

[**EXTERNAL EMAIL**]

FYI

From: Beauvais, Charles R

Sent: Friday, April 8, 2022 3:00 PM

To: Hensley, Chad, EMNRD <Chad.Hensley@state.nm.us>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Esparza, Brittany <Brittany.Esparza@conocophillips.com>;

Fejervary Morena, Gustavo A < G. Fejervary@conocophillips.com>

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

Subject: Extension Request- Macho Nacho (Incident Number NAPP2132756247)

To Whom It May Concern,

COP is requesting an extension of the current April 10, 2022 deadline for submitting a Remediation Work Plan or Closure Report required in 19.15.29.12.B.(1) NMAC for the Macho Nacho State Com 010 CTB (Incident Number NAPP2132756247). The release was discovered on November 11, 2021 and remediation activities are ongoing. In addition, COP intends to drill a depth to water boring to confirm the closure criteria at the Site. 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 a 90-day extension of the deadline until July 10, 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 F

Final C-141

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NAPP2132756247
District RP	
Facility ID	
Application ID	_

Release Notification

Responsible Party

Responsible l	Party			OGRID	OGRID				
Contact Nam	e			Contact T	Contact Telephone				
Contact emai	1			Incident #	t (assigned by OCL	0)			
Contact maili	ng address								
			Location	of Release S	ource				
Latitude Longitude									
			(NAD 83 in dec	cimal degrees to 5 deci	mal places)				
Site Name				Site Type					
Date Release	Discovered			API# (if ap	plicable)				
Unit Letter	Section	Township	Range	Cou	nty				
Surface Owner				l Volume of		ne volumes provided below)			
Crude Oil		Volume Release		calculations of specific	Volume Recovered (bbls)				
Produced	Water	Volume Release	d (bbls)		Volume Recovered (bbls)				
		Is the concentrate produced water	ion of dissolved c	hloride in the	☐ Yes ☐ No				
Condensat	te	Volume Release			Volume Recovered (bbls)				
Natural G	as	Volume Release	d (Mcf)		Volume Recovered (Mcf)				
Other (des	scribe)	Volume/Weight	Released (provide	e units)	Volume/Weight Recovered (provide units)				
Cause of Rele	ease								

Received by OCD: 8/30/2022/3:44/41 PMI State of New Mexico
Page 2 Oil Conservation Division

	PageHogeof 1)
Incident ID	NAPP2132756247
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 respon	nsible party consider this a major release?					
☐ Yes ☐ No							
If YES, was immediate no	otice given to the OCD? By whom? To wh	om? When and by what means (phone, email, etc)?					
	Initial Ro	esponse					
The responsible	party must undertake the following actions immediatel	y unless they could create a safety hazard that would result in injury					
☐ The source of the rele	ease has been stopped.						
☐ The impacted area ha	s been secured to protect human health and	the environment.					
☐ Released materials ha	we been contained via the use of berms or c	ikes, absorbent pads, or other containment devices.					
☐ All free liquids and re	ecoverable materials have been removed and	l managed appropriately.					
D. 10.15.20.0 D. (4) NR							
has begun, please attach	a narrative of actions to date. If remedial	emediation immediately after discovery of a release. If remediation efforts have been successfully completed or if the release occurred lease attach all information needed for closure evaluation.					
regulations all operators are public health or the environr failed to adequately investig	required to report and/or file certain release noti ment. The acceptance of a C-141 report by the C ate and remediate contamination that pose a thre	best of my knowledge and understand that pursuant to OCD rules and fications and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have at to groundwater, surface water, human health or the environment. In responsibility for compliance with any other federal, state, or local laws					
Printed Name							
Signature:	50						
email:		Telephone:					
OCD Only							
Received by: Ramo	na Marcus	Date: 11/29/2021					

L48 Spill Volume Estimate Form

					_	TO Opin V	ordine Latindate	1 OTHE					
Received by OCD): 8/30/A	20223	:44:41 PM4ber:	Macho Nacho #10. Page 160 of 165								age 160 of 165	
			Asset Area:	Delaware basin ea	Delaware basin east north NAPP2132756247								
	Releas	e Disco	very Date & Time:	:: 11/10/2021 9:10am									
	Release Type; Oil												
Provide any known details about the event: Heater swamped out causing flare fire													
					Spil	I Calculation	- On Pad Surface	Pool Spill	-				
Convert Irregular shape	Length	Width	The state of the s	No. of boundaries	The second secon	Estimated Average	Estimated volume	Penetration	Total Estimated	Percentage of Oil if	Total Estimated	Total Estimated Volume of Spilled	

rectangles	(ft.)	(ft.)	areas	area	(sq. ft.)	Depth (ft.)	(bbl.)	(ft.)	(bbl.)	Mixture	Oil (bbl.)	Liquid other than Oil (bbl.)
Rectangle A	147.0	43.0	0.02	4	6321.000	0.000	0.469	0.000	0.469			
Rectangle B					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			

Total Volume Release:

0.469

Rectangle G 0.000 #DIV/0! #DIV/0! #DIV/0! #DIV/0! Rectangle H #DIV/0! #DIV/0! #DIV/0! 0.000 #DIV/0! Rectangle I #DIV/0! 0.000 #DIV/0! #DIV/0! #DIV/0! 0.000 #DIV/0! #DIV/0! #DIV/0! Released to Imaging: 9/7/2022 2:55:34 PM AM

#DIV/0!

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 63483

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	63483
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

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

tate of New Mexico

Incident ID	NAPP2132756247
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>>100</u> (ft bgs)					
Did this release impact groundwater or surface water?						
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?						
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?						
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?						
Are the lateral extents of the release overlying an unstable area such as karst geology?						
Are the lateral extents of the release within a 100-year floodplain?						
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No					
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.						
Characterization Report Checklist: Each of the following items must be included in the report.						
 Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data Data table of soil contaminant concentration data Depth to water determination Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release Boring or excavation logs Photographs including date and GIS information Topographic/Aerial maps Laboratory data including chain of custody 						

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

Received by OCD: 8/30/2022 3:44:41 PM Form C-141 State of New Mexico Page 4 Oil Conservation Division

Page 163 of 165

Incident ID	NAPP2132756247
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.					
Title:or Environmental Engineer					
Date:					
Telephone:575-988-2043					
Date:08/30/2022					

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Incident ID	NAPP2132756247
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following items must be included in the closure report.					
□ A scaled site and sampling diagram as described in 19.15.29.11 NMAC					
□ Photographs of the remediated site prior to backfill or photos of the liner in must be notified 2 days prior to liner inspection)	tegrity if applicable (Note: appropriate OCD District office				
☐ Laboratory analyses of final sampling (Note: appropriate ODC District office	e must be notified 2 days prior to final sampling)				
□ Description of remediation activities					
I hereby certify that the information given above is true and complete to the best and regulations all operators are required to report and/or file certain release notification may endanger public health or the environment. The acceptance of a C-141 report should their operations have failed to adequately investigate and remediate contains thuman health or the environment. In addition, OCD acceptance of a C-141 report compliance with any other federal, state, or local laws and/or regulations. The report restore, reclaim, and re-vegetate the impacted surface area to the conditions that exaccordance with 19.15.29.13 NMAC including notification to the OCD when recompliance. Printed Name:Charles Beauvais Title:Set Signature: Date: Beauvais @conocophillips.com Telephone: Telephone: Telephone:	ications and perform corrective actions for releases which it by the OCD does not relieve the operator of liability mination that pose a threat to groundwater, surface water, it does not relieve the operator of responsibility for sponsible party acknowledges they must substantially existed prior to the release or their final land use in amation and re-vegetation are complete. 10/2022				
OCD Only					
Received by: Docelyn Harimon Date	08/30/2022				
Closure approval by the OCD does not relieve the responsible party of liability shremediate contamination that poses a threat to groundwater, surface water, human party of compliance with any other federal, state, or local laws and/or regulations	nealth, or the environment nor does not relieve the responsible				
Closure Approved by:	te: _09/07/2022				
Printed Name: Jennifer Nobui Ti	le: Environmental Specialist A				

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

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 139603

CONDITIONS

Operator:	OGRID:
COG OPERATING LLC	229137
600 W Illinois Ave	Action Number:
Midland, TX 79701	139603
	Action Type:
	[C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	9/7/2022