



WSP USA

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

January 4, 2022

District I  
New Mexico Oil Conservation Division  
1625 N. French Drive  
Hobbs, New Mexico 88210

**RE: Closure Request  
Tusk Federal 002H  
Incident Number NAPP2131927902  
Lea County, New Mexico**

To Whom It May Concern:

WSP USA Inc. (WSP) on behalf of COG Operating, LLC (COG), presents the following Closure Request detailing site assessment and soil sampling activities at the Tusk Federal 002H (Site) in Unit D, Section 25, Township 19 South, Range 34 East, in Lea County, New Mexico (Figure 1). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of crude oil within lined containment at the Site. Based on field observations, field screening activities, and soil sample laboratory analytical results, COG is submitting this Closure Request and requesting no further action (NFA) for Incident Number NAPP2131927902.

## **RELEASE BACKGROUND**

On October 26, 2021, a valve was left open while sealing a tank, causing approximately 25 barrels (bbls) of crude oil to release into the lined containment. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; all 25 bbls of the released crude oil was recovered from within the lined containment. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on October 26, 2021, and submitted a Release Notification Form C-141 on November 9, 2021. The release was assigned Incident Number NAPP2131927902. A 48-hour advance notice of liner inspection was provided via email on November 16, 2021 to the NMOCD District I office. A liner integrity inspection was conducted by WSP personnel on November 18, 2021 and upon inspection, the liner was determined to be insufficient.

## **SITE CHARACTERIZATION**

WSP characterized the Site according to Table 1, *Closure Criteria for Soils Impacted by a Release*, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater



well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) well L-08941. The well is located approximately 6,247 feet northeast of the site. The groundwater well has a reported depth to groundwater of 286 feet bgs and a total depth of 600 feet bgs. Ground surface elevation at the groundwater well location is 3,804 feet amsl, which is approximately 27 feet higher in elevation than the Site. All wells used for depth to groundwater determination are depicted on Figure 1 and referenced well records are provided in Attachment 1.

The closest continuously flowing or significant watercourse to the Site is an unnamed dry wash, located approximately 5,548 feet northeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

## **CLOSURE CRITERIA**

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

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

## **SITE ASSESSMENT ACTIVITIES**

On December 8, 2021, WSP personnel visited the Site to evaluate the release and conduct site assessment activities. WSP personnel advanced one borehole (BH01) via hand-auger at the location of the tear in the liner identified during the liner integrity inspection. Three soil samples were collected from the borehole at depths of approximately 1 foot, 3 feet, and 4 feet bgs. Soil from the borehole was field screened for volatile aromatic hydrocarbons and chloride utilizing a calibrated photo-ionization detector (PID) and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the borehole were documented on a lithologic/soil sampling log, which is included as Attachment 2. The borehole was backfilled with the soil removed and a COG contractor repaired the tear in the liner. The borehole location is depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photographic log is included in Attachment 3.

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The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

## **SOIL ANALYTICAL RESULTS**

Laboratory analytical results for delineation soil samples BH01, BH01A, and BH01B indicated that benzene, BTEX, TPH-DRO/TPH-GRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria. In addition, delineation soil samples BH01A and BH01B collected at 3 feet and 4 feet bgs were compliant with the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Attachment 4.

## **CLOSURE REQUEST**

Following the failed liner integrity inspection at the Site, WSP personnel advanced one borehole (BH01) within the lined containment to assess for the presence or absence of impacted soil resulting from the October 26, 2021 crude oil release within lined containment. Three delineation soil samples were collected from borehole BH01, at depths of approximately, 1 foot, 3 feet, and 4 feet bgs. Laboratory analytical results for the delineation soil samples indicated that benzene, BTEX, TPH-DRO/TPH-GRO, TPH and chloride concentrations were compliant with the Site Closure Criteria. In addition, delineation soil samples BH01A and BH01B collected at 3 feet and 4 feet bgs were compliant with the most stringent Table 1 Closure Criteria. The release was contained laterally by the lined containment and all released fluids were recovered during initial response activities. The tear in the liner was subsequently repaired.

Based on initial response efforts, absence of elevated field screening results, and soil sample laboratory analytical results compliant with the Closure Criteria directly beneath the tear in the liner, COG respectfully requests NFA for Incident Number NAPP2131927902. The final Form C-141 is included in Attachment 5.

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

Sincerely,

WSP USA Inc.



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A handwritten signature in black ink that reads 'Kalei Jennings'.

Kalei Jennings  
Associate Consultant

A handwritten signature in black ink that reads 'Ashley L. Ager'.

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

cc: Kelsy Waggaman, COG Operating, LLC  
Bureau of Land Management

Attachments:

Figure 1 Site Location Map  
Figure 2 Delineation Soil Sample Locations  
Table 1 Soil Analytical Results  
Attachment 1 Referenced Well Records  
Attachment 2 Lithologic/Sampling Log  
Attachment 3 Photographic Log  
Attachment 4 Laboratory Analytical Reports  
Attachment 5 Final C-141



FIGURES

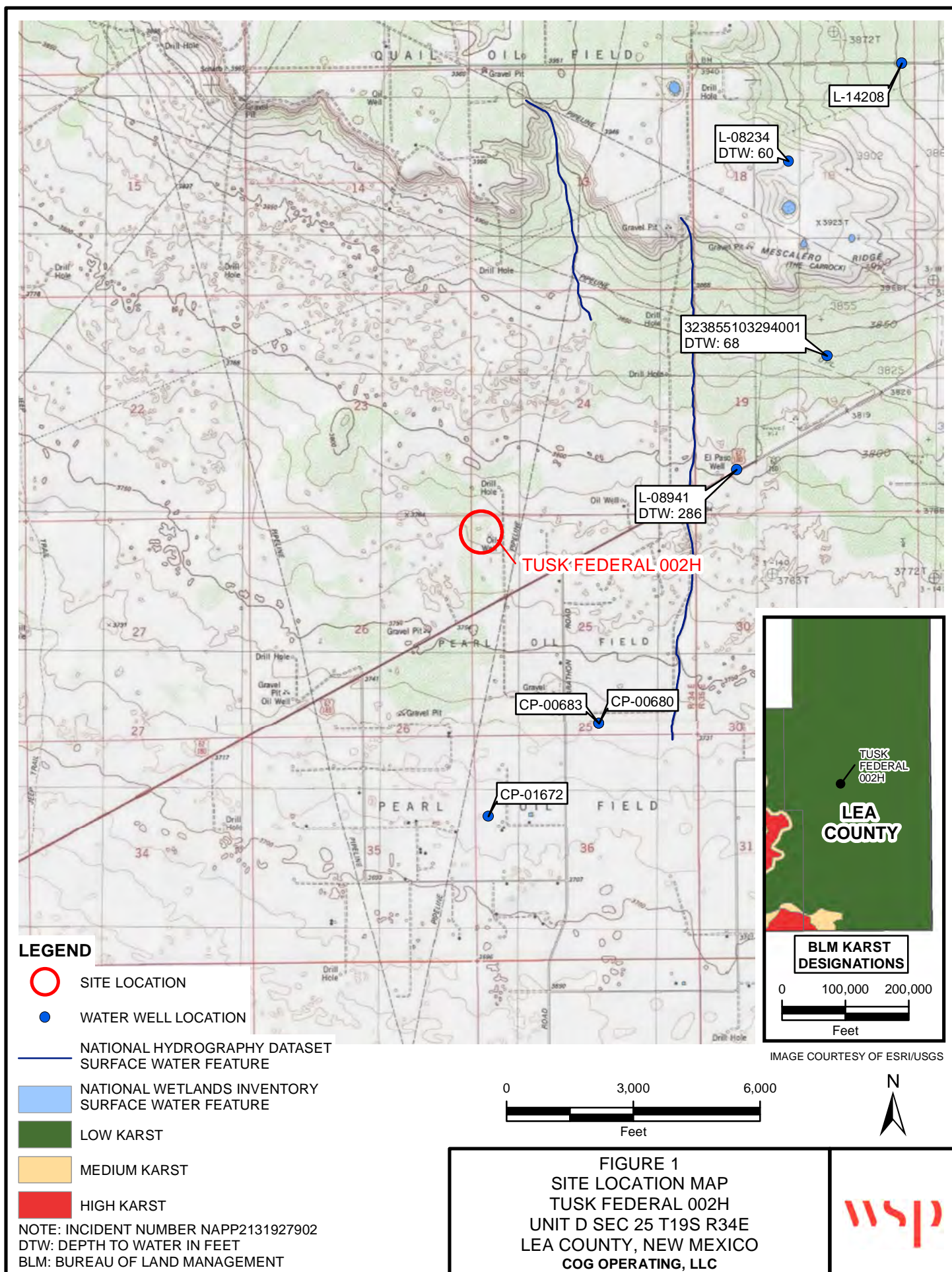




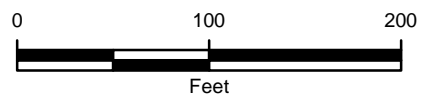




IMAGE COURTESY OF ESRI

**LEGEND**

-  DELINEATION SOIL SAMPLE IN COMPLIANCE WITH APPLICABLE CLOSURE CRITERIA
-  CONTAINMENT



NOTE: INCIDENT NUMBER NAPP2131927902  
SAMPLE ID@DEPTH BELOW GROUND SURFACE (FEET)

**FIGURE 2**  
**DELINEATION SOIL SAMPLE LOCATIONS**  
TUSK FEDERAL 002H  
UNIT D SEC 25 T19S R34E  
LEA COUNTY, NEW MEXICO  
COG OPERATING, LLC



TABLES

Table 1

Soil Analytical Results  
Tusk Federal 002H  
Incident Number NAPP2131927902  
Lea County, New Mexico

Sample ID	Sample Date	Sample Depth (ft bgs)	Benzene (mg/kg)	BTEX (mg/kg)	TPH-DRO (mg/kg)	TPH-GRO (mg/kg)	TPH-ORO (mg/kg)	Total GRO+DRO (mg/kg)	TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
<b>Delineation Soil Samples</b>										
BH01	12/08/2021	1	0.0131	0.836	522	105	<49.9	627	627	<5.01
BH01A	12/08/2021	3	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	7.75
BH01B	12/08/2021	4	<0.00198	0.0261	<50.0	<50.0	<50.0	<50.0	<50.0	<4.95

**Notes:**

ft - feet/foot

mg/kg - milligrams per kilograms

BTEX - benzene, toluene, ethylbenzene, and total xylenes

TPH - total petroleum hydrocarbons

DRO - diesel range organics

GRO - gasoline range organics

ORO - oil range organics

NMOCD - New Mexico Oil Conservation Division

NMAC - New Mexico Administrative Code

&lt; - indicates result is less than the stated laboratory method practical quantitation limit

NE - Not Established

**BOLD** - indicates results exceed the higher of the background sample result or applicable regulatory standard

ATTACHMENT 1: REFERENCED WELL RECORD




# New Mexico Office of the State Engineer

## Water Right Summary



[get image list](#)

**WR File Number:** L 08941      **Subbasin:** L      **Cross Reference:** -  
**Primary Purpose:** STK    72-12-1 LIVESTOCK WATERING  
**Primary Status:** PMT    PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 3      **Cause/Case:** -  
**Owner:** SNYDER RANCHES  
**Contact:** LARRY SQUIRES

### Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
				1	2					
 <a href="#">get images</a>	<a href="#">519657</a>	<a href="#">72121</a>	<a href="#">1982-09-02</a>	PMT	LOG	L 08941	T		3	

### Current Points of Diversion

(NAD83 UTM in meters)										
POD Number	Well Tag	Source	Q				X	Y	Other Location Desc	
			64	Q16	Q4	Sec	Tws	Rng		
<a href="#">L 08941</a>	NA	Shallow	2	3	3	19	19S	35E	640510	3612523  L-14387

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.

11/18/21 7:07 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)

<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	<b>X</b>	<b>Y</b>
NA	L 08941	2	3	3	19	19S	35E	640510	3612523

x

**Driller License:** 319 **Driller Company:** NEW MEXICO STATE HIGHWAY DEPT.

**Driller Name:** LOVELACE

<b>Drill Start Date:</b> 07/08/1982	<b>Drill Finish Date:</b> 08/09/1982	<b>Plug Date:</b>
<b>Log File Date:</b> 08/30/1982	<b>PCW Rev Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b> 12 GPM
<b>Casing Size:</b> 6.63	<b>Depth Well:</b> 600 feet	<b>Depth Water:</b> 286 feet

x

<b>Water Bearing Stratifications:</b>	<b>Top</b>	<b>Bottom</b>	<b>Description</b>
	280	295	Sandstone/Gravel/Conglomerate
	510	560	Other/Unknown

x

<b>Casing Perforations:</b>	<b>Top</b>	<b>Bottom</b>
	281	306
	510	530
	560	570

x

<b>Meter Number:</b> 17820	<b>Meter Make:</b> TURBINES INC
<b>Meter Serial Number:</b> 08051601	<b>Meter Multiplier:</b> 1.0000
<b>Number of Dials:</b> 7	<b>Meter Type:</b> Diversion
<b>Unit of Measure:</b> Barrels 42 gal.	<b>Return Flow Percent:</b>
<b>Usage Multiplier:</b>	<b>Reading Frequency:</b> Monthly

x

### Meter Readings (in Acre-Feet)

<b>Read Date</b>	<b>Year</b>	<b>Mtr Reading</b>	<b>Flag</b>	<b>Rdr</b>	<b>Comment</b>	<b>Mtr Amount Online</b>
03/01/2017	2017	17259	A	ap		0
12/01/2017	2017	42330	A	ap		3.231



01/01/2018	2018	42330	A	ap	0
03/01/2018	2018	50271	A	ap	1.024
06/01/2018	2018	62582	A	ap	1.587
07/01/2018	2018	68319	A	ap	0.739
08/01/2018	2018	69669	A	ap	0.174
09/01/2018	2018	70515	A	ap	0.109
11/01/2018	2018	75584	A	ap	0.653
12/01/2018	2018	78697	A	ap	0.401

x

**YTD Meter Amounts:	Year	Amount
	2017	3.231
	2018	4.687

x

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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.

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POINT OF DIVERSION SUMMARY

ATTACHMENT 3: PHOTOGRAPHIC LOG

 <p>WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220</p>		BH or PH Name: BH01		Date: 12/08/2021				
		Site Name: Tusk 2H Federal Battery						
		RP or Incident Number: NAPP2131927902						
		WSP Job Number: 31403720.000						
<b>LITHOLOGIC / SOIL SAMPLING LOG</b>								
Lat/Long: 32.63747, -103.52165		Field Screening: Chloride, PID		Logged By: HG				
				Method: Hand Auger				
Hole Diameter: 3"								
Total Depth: 4'								
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
					0			
M	<179.2	53.2	N	BH01	0.5	0.5	SP-SM	MEDIUM-FINE GRAINED, TRACE CALICHE GRAVEL, SOME SILT AND CLAY, MODERATELY GRADED, NO STAIN, STRONG ODOR, BROWNISH
M	<179.2	132.5	N	BH01A	1	1	SC	BROWNISH/RED, MEDIUM-FINE GRAINED, MORE CLAY, MODERATELY GRADED, NO STAIN, STRONG ODOR
M	<179.2	19.6	N	BH01B	2	2	SC	RED, FINE GRAINED, MORE CLAY AND SILT, MODERATELY GRADED, NO STAIN, STRONG ODOR
M	<179.2	23	N	BH01C	3	3	SC	SAA, MODERATE ODOR
M	<179.2	51.6	N	BH01d	4	4	SAA	
TD @ 4 ft bgs								

ATTACHMENT 1: REFERENCED WELL RECORD



## PHOTOGRAPHIC LOG

COG Operating, LLC	Tusk Federal 002H Lea County, New Mexico	NAPP2131927902
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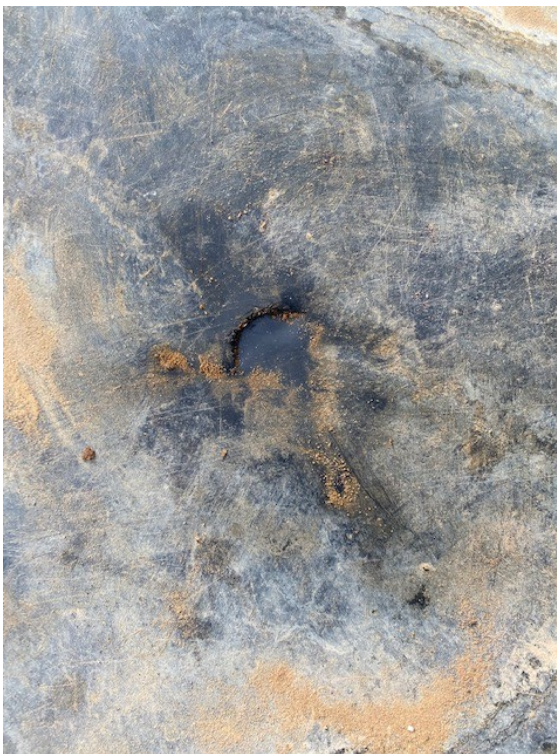
Photo No.	Date	
1	November 18, 2021	
View of hole found in the compromised liner.		 A close-up photograph showing a hole in a metal liner. The liner is heavily wrinkled and discolored, with a dark, irregular hole visible in the center. The surrounding metal is a dull, greyish-brown color.

Photo No.	Date	
2	November 18, 2021	
View of hole found in the compromised liner.		 A close-up photograph showing a hole in a metal liner. The liner is heavily wrinkled and discolored, with a dark, irregular hole visible in the center. The surrounding metal is a dull, greyish-brown color.





## PHOTOGRAPHIC LOG

COG Operating, LLC	Tusk Federal 002H Lea County, New Mexico	NAPP2131927902
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Photo No.	Date	
3	December 8, 2021	
View of borehole location inside the liner.		 A photograph showing a white plastic bucket filled with reddish-brown soil or sediment. The bucket is placed on a dark, textured surface, likely a liner. A small, circular hole is visible in the liner, and a metal rod is inserted into it. The surrounding area is covered in a dark, textured material, possibly a liner or soil.

Photo No.	Date	
4	December 8, 2021	
View of repaired liner.		 A photograph showing a close-up of a dark, textured surface, likely a liner. A metal rod is visible, and a small, circular hole is visible in the liner. The surrounding area is covered in a dark, textured material, possibly a liner or soil.

ATTACHMENT 4: LABORATORY ANALYTICAL RESULTS



## Environment Testing America

### ANALYTICAL REPORT

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

Laboratory Job ID: 880-9170-1

Laboratory Sample Delivery Group: 32.63747, -103.52165  
Client Project/Site: Tusk Federal 002H

**For:**

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

Attn: Kalei Jennings

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

Authorized for release by:  
12/14/2021 2:12:52 PM

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

#### LINKS

Review your project  
results through  
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Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

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

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



Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Laboratory Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

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## Definitions/Glossary

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

## Qualifiers

## GC VOA

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

## GC Semi VOA

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

## HPLC/IC

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

## Glossary

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

**Case Narrative**

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

**Job ID: 880-9170-1****Laboratory: Eurofins Xenco, Midland****Narrative****Job Narrative  
880-9170-1****Receipt**

The samples were received on 12/9/2021 9:39 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.2°C

**GC VOA**

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

**GC Semi VOA**

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

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-14498 and analytical batch 880-14772 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

Client Sample ID: BH 01 A

Lab Sample ID: 880-9170-1

Date Collected: 12/08/21 09:16

Matrix: Solid

Date Received: 12/09/21 09:39

Sample Depth: 1'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0131		0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:11	1
Toluene	0.174		0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:11	1
Ethylbenzene	0.144		0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:11	1
m-Xylene & p-Xylene	0.351		0.00396		mg/Kg		12/09/21 17:00	12/09/21 21:11	1
o-Xylene	0.154		0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:11	1
Xylenes, Total	0.505		0.00396		mg/Kg		12/09/21 17:00	12/09/21 21:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	12/09/21 17:00	12/09/21 21:11	1
1,4-Difluorobenzene (Surr)	77		70 - 130	12/09/21 17:00	12/09/21 21:11	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.836		0.00396		mg/Kg			12/10/21 14:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	627		49.9		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	105		49.9		mg/Kg		12/09/21 13:45	12/10/21 04:19	1
Diesel Range Organics (Over C10-C28)	522		49.9		mg/Kg		12/09/21 13:45	12/10/21 04:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		12/09/21 13:45	12/10/21 04:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130	12/09/21 13:45	12/10/21 04:19	1
o-Terphenyl	90		70 - 130	12/09/21 13:45	12/10/21 04:19	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			12/14/21 10:36	1

Client Sample ID: BH 01 C

Lab Sample ID: 880-9170-2

Date Collected: 12/08/21 09:25

Matrix: Solid

Date Received: 12/09/21 09:39

Sample Depth: 3'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		12/09/21 17:00	12/09/21 21:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		12/09/21 17:00	12/09/21 21:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		12/09/21 17:00	12/09/21 21:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		12/09/21 17:00	12/09/21 21:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		12/09/21 17:00	12/09/21 21:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		12/09/21 17:00	12/09/21 21:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	12/09/21 17:00	12/09/21 21:31	1

Eurofins Xenco, Midland

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

Client Sample ID: BH 01 C

Lab Sample ID: 880-9170-2

Date Collected: 12/08/21 09:25

Matrix: Solid

Date Received: 12/09/21 09:39

Sample Depth: 3'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	100		70 - 130	12/09/21 17:00	12/09/21 21:31	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			12/10/21 14:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			12/13/21 12:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		12/09/21 13:45	12/10/21 04:41	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		12/09/21 13:45	12/10/21 04:41	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		12/09/21 13:45	12/10/21 04:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130				12/09/21 13:45	12/10/21 04:41	1
o-Terphenyl	87		70 - 130				12/09/21 13:45	12/10/21 04:41	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.75		4.99		mg/Kg			12/14/21 10:43	1

Client Sample ID: BH 01 D

Lab Sample ID: 880-9170-3

Date Collected: 12/08/21 09:30

Matrix: Solid

Date Received: 12/09/21 09:39

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:52	1
Toluene	0.00305		0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:52	1
Ethylbenzene	0.00823		0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:52	1
m-Xylene & p-Xylene	0.00962		0.00397		mg/Kg		12/09/21 17:00	12/09/21 21:52	1
o-Xylene	0.00523		0.00198		mg/Kg		12/09/21 17:00	12/09/21 21:52	1
Xylenes, Total	0.0149		0.00397		mg/Kg		12/09/21 17:00	12/09/21 21:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	12/09/21 17:00	12/09/21 21:52	1
1,4-Difluorobenzene (Surr)	87		70 - 130	12/09/21 17:00	12/09/21 21:52	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.0261		0.00397		mg/Kg			12/10/21 14:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			12/13/21 12:32	1

Eurofins Xenco, Midland

## Client Sample Results

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

Client Sample ID: BH 01 D

Lab Sample ID: 880-9170-3

Date Collected: 12/08/21 09:30

Matrix: Solid

Date Received: 12/09/21 09:39

Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/09/21 13:45	12/10/21 05:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/09/21 13:45	12/10/21 05:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/09/21 13:45	12/10/21 05:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	96		70 - 130				12/09/21 13:45	12/10/21 05:02	1
o-Terphenyl	87		70 - 130				12/09/21 13:45	12/10/21 05:02	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U F1	4.95		mg/Kg			12/14/21 10:49	1

## Surrogate Summary

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-9151-A-1-C MS	Matrix Spike	98	63 S1-
880-9151-A-1-D MSD	Matrix Spike Duplicate	118	96
880-9170-1	BH 01 A	99	77
880-9170-2	BH 01 C	116	100
880-9170-3	BH 01 D	106	87
LCS 880-14352/1-A	Lab Control Sample	109	96
LCSD 880-14352/2-A	Lab Control Sample Dup	107	95
MB 880-14352/5-A	Method Blank	122	101
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8965-A-1-L MS	Matrix Spike	91	81
880-8965-A-1-M MSD	Matrix Spike Duplicate	90	77
880-9170-1	BH 01 A	96	90
880-9170-2	BH 01 C	97	87
880-9170-3	BH 01 D	96	87
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-14385/2-A	Lab Control Sample	96	92
LCSD 880-14385/3-A	Lab Control Sample Dup	124	116
MB 880-14385/1-A	Method Blank	104	107
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

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

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

Matrix: Solid

Analysis Batch: 14356

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14352

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		12/09/21 10:15	12/09/21 14:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		12/09/21 10:15	12/09/21 14:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	12/09/21 10:15	12/09/21 14:05	1
1,4-Difluorobenzene (Surr)	101		70 - 130	12/09/21 10:15	12/09/21 14:05	1

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

Matrix: Solid

Analysis Batch: 14356

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14352

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

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

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

Matrix: Solid

Analysis Batch: 14356

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14352

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

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

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

Matrix: Solid

Analysis Batch: 14356

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 14352

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

Eurofins Xenco, Midland



## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

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

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

Matrix: Solid

Analysis Batch: 14356

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 14352

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.00202	U F1	0.101	0.06151	F1	mg/Kg		61	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.202	0.1252	F1	mg/Kg		62	70 - 130
o-Xylene	<0.00202	U F1	0.101	0.06914	F1	mg/Kg		69	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	63	S1-	70 - 130

Lab Sample ID: 880-9151-A-1-D MSD

Matrix: Solid

Analysis Batch: 14356

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 14352

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00202	U F1	0.0998	0.07782		mg/Kg		78	70 - 130	30	35
Toluene	<0.00202	U F1 F2	0.0998	0.07605	F2	mg/Kg		76	70 - 130	37	35
Ethylbenzene	<0.00202	U F1	0.0998	0.07871		mg/Kg		79	70 - 130	25	35
m-Xylene & p-Xylene	<0.00403	U F1	0.200	0.1559		mg/Kg		78	70 - 130	22	35
o-Xylene	<0.00202	U F1	0.0998	0.08168		mg/Kg		82	70 - 130	17	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

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

Lab Sample ID: MB 880-14385/1-A

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		12/09/21 13:45	12/09/21 20:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		12/09/21 13:45	12/09/21 20:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		12/09/21 13:45	12/09/21 20:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	12/09/21 13:45	12/09/21 20:42	1
o-Terphenyl	107		70 - 130	12/09/21 13:45	12/09/21 20:42	1

Lab Sample ID: LCS 880-14385/2-A

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1006		mg/Kg		101	70 - 130
Diesel Range Organics (Over C10-C28)	1000	974.9		mg/Kg		97	70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

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

Lab Sample ID: LCS 880-14385/2-A

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14385

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	96		70 - 130
o-Terphenyl	92		70 - 130

Lab Sample ID: LCSD 880-14385/3-A

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14385

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1018		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	978.4		mg/Kg		98	70 - 130	0	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	116		70 - 130

Lab Sample ID: 880-8965-A-1-L MS

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 14385

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1291		mg/Kg		128	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	997	1315	F1	mg/Kg		132	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	81		70 - 130

Lab Sample ID: 880-8965-A-1-M MSD

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 14385

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1259		mg/Kg		124	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	1287		mg/Kg		129	70 - 130	2	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	77		70 - 130

Eurofins Xenco, Midland

## QC Sample Results

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14498/1-A

Matrix: Solid

Analysis Batch: 14772

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			12/14/21 08:56	1

Lab Sample ID: LCS 880-14498/2-A

Matrix: Solid

Analysis Batch: 14772

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	250.7		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-14498/3-A

Matrix: Solid

Analysis Batch: 14772

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	254.6		mg/Kg		102	90 - 110	2	20

Lab Sample ID: 880-9170-3 MS

Matrix: Solid

Analysis Batch: 14772

Client Sample ID: BH 01 D

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<4.95	U F1	248	271.7		mg/Kg		110	90 - 110

Lab Sample ID: 880-9170-3 MSD

Matrix: Solid

Analysis Batch: 14772

Client Sample ID: BH 01 D

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<4.95	U F1	248	273.6	F1	mg/Kg		111	90 - 110	1	20

Eurofins Xenco, Midland

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

## GC VOA

## Prep Batch: 14352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Total/NA	Solid	5035	
880-9170-2	BH 01 C	Total/NA	Solid	5035	
880-9170-3	BH 01 D	Total/NA	Solid	5035	
MB 880-14352/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14352/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14352/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9151-A-1-C MS	Matrix Spike	Total/NA	Solid	5035	
880-9151-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 14356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Total/NA	Solid	8021B	14352
880-9170-2	BH 01 C	Total/NA	Solid	8021B	14352
880-9170-3	BH 01 D	Total/NA	Solid	8021B	14352
MB 880-14352/5-A	Method Blank	Total/NA	Solid	8021B	14352
LCS 880-14352/1-A	Lab Control Sample	Total/NA	Solid	8021B	14352
LCSD 880-14352/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14352
880-9151-A-1-C MS	Matrix Spike	Total/NA	Solid	8021B	14352
880-9151-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	14352

## Analysis Batch: 14513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Total/NA	Solid	Total BTEX	
880-9170-2	BH 01 C	Total/NA	Solid	Total BTEX	
880-9170-3	BH 01 D	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 14325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Total/NA	Solid	8015B NM	14385
880-9170-2	BH 01 C	Total/NA	Solid	8015B NM	14385
880-9170-3	BH 01 D	Total/NA	Solid	8015B NM	14385
MB 880-14385/1-A	Method Blank	Total/NA	Solid	8015B NM	14385
LCS 880-14385/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14385
LCSD 880-14385/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14385
880-8965-A-1-L MS	Matrix Spike	Total/NA	Solid	8015B NM	14385
880-8965-A-1-M MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	14385

## Prep Batch: 14385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Total/NA	Solid	8015NM Prep	
880-9170-2	BH 01 C	Total/NA	Solid	8015NM Prep	
880-9170-3	BH 01 D	Total/NA	Solid	8015NM Prep	
MB 880-14385/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14385/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14385/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8965-A-1-L MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8965-A-1-M MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Midland

## QC Association Summary

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

## GC Semi VOA

## Analysis Batch: 14652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Total/NA	Solid	8015 NM	
880-9170-2	BH 01 C	Total/NA	Solid	8015 NM	
880-9170-3	BH 01 D	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 14498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Soluble	Solid	DI Leach	
880-9170-2	BH 01 C	Soluble	Solid	DI Leach	
880-9170-3	BH 01 D	Soluble	Solid	DI Leach	
MB 880-14498/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14498/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14498/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9170-3 MS	BH 01 D	Soluble	Solid	DI Leach	
880-9170-3 MSD	BH 01 D	Soluble	Solid	DI Leach	

## Analysis Batch: 14772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9170-1	BH 01 A	Soluble	Solid	300.0	14498
880-9170-2	BH 01 C	Soluble	Solid	300.0	14498
880-9170-3	BH 01 D	Soluble	Solid	300.0	14498
MB 880-14498/1-A	Method Blank	Soluble	Solid	300.0	14498
LCS 880-14498/2-A	Lab Control Sample	Soluble	Solid	300.0	14498
LCSD 880-14498/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14498
880-9170-3 MS	BH 01 D	Soluble	Solid	300.0	14498
880-9170-3 MSD	BH 01 D	Soluble	Solid	300.0	14498

## Lab Chronicle

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

Client Sample ID: BH 01 A

Lab Sample ID: 880-9170-1

Date Collected: 12/08/21 09:16

Matrix: Solid

Date Received: 12/09/21 09:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	14352	12/09/21 17:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14356	12/09/21 21:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			14513	12/10/21 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14385	12/09/21 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14325	12/10/21 04:19	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 10:36	CH	XEN MID

Client Sample ID: BH 01 C

Lab Sample ID: 880-9170-2

Date Collected: 12/08/21 09:25

Matrix: Solid

Date Received: 12/09/21 09:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	14352	12/09/21 17:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14356	12/09/21 21:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			14513	12/10/21 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	14385	12/09/21 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14325	12/10/21 04:41	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 10:43	CH	XEN MID

Client Sample ID: BH 01 D

Lab Sample ID: 880-9170-3

Date Collected: 12/08/21 09:30

Matrix: Solid

Date Received: 12/09/21 09:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	14352	12/09/21 17:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14356	12/09/21 21:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			14513	12/10/21 14:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:32	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14385	12/09/21 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14325	12/10/21 05:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14498	12/10/21 12:22	CH	XEN MID
Soluble	Analysis	300.0		1			14772	12/14/21 10:49	CH	XEN MID

## Laboratory References:

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

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

Laboratory: Eurofins Xenco, Midland

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

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

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

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

## Method Summary

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

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, Midland



Sample Summary

Client: WSP USA Inc.  
Project/Site: Tusk Federal 002H

Job ID: 880-9170-1  
SDG: 32.63747, -103.52165

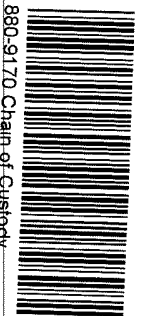
Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-9170-1	BH 01 A	Solid	12/08/21 09:16	12/09/21 09:39	1'
880-9170-2	BH 01 C	Solid	12/08/21 09:25	12/09/21 09:39	3'
880-9170-3	BH 01 D	Solid	12/08/21 09:30	12/09/21 09:39	4'

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



## 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  
 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199 Phoenix AZ (480) 355-0900  
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 589-6701  
 Atlanta GA (770) 449-8800



880-9170 Chain of Custody

www.xenco.com Page 1 of 1

Project Manager	Kalei Jennings	Bill to (if different)	Kalei Jennings
Company Name	WSP USA	Company Name	WSP USA
Address	3300 North A Street	Address	3300 North A Street
City State ZIP	Midland, TX 79705	City State ZIP	Midland, TX 79705
Phone	817-683-2503	Email	Kalei.Jennings@wsp.com

Project Name	Tusk Federal 0024	Turn Around	<input checked="" type="checkbox"/>
Project Number	31403720.000	11.02	<input checked="" type="checkbox"/>
Project Location	32-63747-103.52165	Rush	<input type="checkbox"/>
Sample's Name	Hadlie Green	Due Date	5 Oct 2021
PO #			

SAMPLE RECEIPT		Temp Blank	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wet Ice	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Temperature (°C)	44.2	Thermometer ID	IRB		
Received In tact	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Correction Factor			
Cooler Custody Seals	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Containers			
Sample Custody Seals	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code
BH 01 A	S	12/8/21	09:16	1'	X X X X
BH 01 C	S	12/8/21	09:25	3'	X X X X
BH 01 D	S	12/8/21	09:30	4'	X X X X

Total 200.7 / 6010 200.8 / 6020:		8RCRA 13PPM Texas 11	AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U	1631 / 245.1 / 7470 / 7471 Hg

## Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 880-9170-1

SDG Number: 32.63747, -103.52165

Login Number: 9170

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland

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

ATTACHMENT 5: 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	NAPP2131927902
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

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

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

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

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

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

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

Incident ID	NAPP2131927902
District RP	
Facility ID	
Application ID	

<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p>	

## Initial Response

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

<div style="display: flex; flex-direction: column; gap: 10px;"><div><input type="checkbox"/> The source of the release has been stopped.</div><div><input type="checkbox"/> The impacted area has been secured to protect human health and the environment.</div><div><input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.</div><div><input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.</div></div>	
<p>If all the actions described above have <u>not</u> been undertaken, explain why:</p> <div style="height: 100px; border: 1px solid black; margin-top: 5px;"></div>	
<p>Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.</p>	
<p>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.</p>	
<p>Printed Name: _____</p> <p>Signature: <u>          <i>Ramona Marcus</i>          </u></p> <p>email: _____</p>	<p>Title: _____</p> <p>Date: _____</p> <p>Telephone: _____</p>
<p><b><u>OCD Only</u></b></p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"><div>Received by: <u>          Ramona Marcus          </u></div><div>Date: <u>          11/15/2021          </u></div></div>	

## L48 Spill Volume Estimate Form

Facility Name & Number:	Tusk Fed #2
Asset Area:	DBE
Release Discovery Date & Time:	10/26/2021
Release Type:	Oil
Provide any known details about the event:	valve left open while sealing tank

## Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated Pool Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	99.0	21.0	2.00	3	2079.000	0.056	20.559	0.003	20.616			
Rectangle B	21.0	21.0	2.00	3	441.000	0.056	4.361	0.003	4.373			
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!			
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
Total Volume Release:									24.989			



**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 61711

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 61711
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
marcus	None	11/15/2021



Incident ID	NAPP2131927902
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>&gt;100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico  
Oil Conservation Division

Incident ID	NAPP2131927902
District RP	
Facility ID	
Application ID	

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

Printed Name: Kelsy Waggaman Title: Environmental Engineer  
Signature:  Date: 01/04/2022  
email: Kelsy.Waggaman@conocophillips.com Telephone: (432)-688-9057

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NAPP2131927902
District RP	
Facility ID	
Application ID	

## Closure

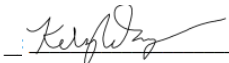
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Kelsy Waggaman Title: Environmental Engineer


Signature:  Date: 01/04/2022

email: kelsy.waggaman@conocophillips.com Telephone: (432) 668-9057

### OCD Only

Received by: Chad Hensley Date: 02/07/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 02/07/2022

Printed Name: Chad Hensley Title: Environmental Specialist Advanced

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 73735

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 73735
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	2/7/2022