May 17, 2022

District 1
New Mexico Oil Conservation Division
1625 N. French Dr.
Hobbs, New Mexico 88240

Re: Remediation Work Plan
King Tut Federal Com 001H
Incident Number NAPP2127234076
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of COG Operating, LLC (COG), has prepared the following Remediation Work Plan to document site assessment and soil sampling activities completed to date and propose a work plan to address impacted soil at the King Tut Federal Com 001H (Site), resulting from a release of produced water into the pasture adjacent to the Site. The following Work Plan proposes lateral and vertical delineation of the release extent and excavation of impacted soil.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit D, Section 30, Township 24 South, Range 32 East, in Lea County, New Mexico (32.194700° N, 103.718300°W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land.

On September 10, 2021, the discharge pressure was running low, which led to the discovery of a hole in the saltwater disposal (SWD) line. Approximately 14.5 barrels (bbls) of produced water was released into the adjacent pasture. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; however, there were no free-standing fluids to recover. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on October 1, 2021. The release was assigned Incident Number NAPP2127234076.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized according to Table 1, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is United States Geological Survey (USGS) well 320952103444401, located approximately 1.85 miles southwest of the Site. The groundwater well has a reported depth to groundwater of 406 feet bgs. Ground surface elevation at the groundwater well location is 3,470 feet

amsl, which is approximately 48 feet lower in elevation than the Site. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an emergent wetland, located approximately 2.28 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 standard of 600 mg/kg chloride and 100 mg/kg TPH applies to the top 4 feet of 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 October 4, 2021, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four preliminary assessment soil samples (SS01 through SS04) were collected within the release extent from a depth of 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 using 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 soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil samples SS01 through SS04 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the reclamation standards. The laboratory analytical results are summarized on the attached Table 1 and the complete laboratory analytical reports are included in Appendix C. Based on visible staining in the release area and the unrecovered volume of produced water, additional delineation activities are warranted.

PROPOSED REMEDIATION WORK PLAN

COG requests approval to complete the following remediation activities:

- COG will complete lateral and vertical delineation of the release extent to below reclamation standards in the top four feet and if applicable, to below the Site Closure Criteria at depths greater than 4 feet bgs. The proposed delineation locations are shown on Figure 3.
- If impacted soil is identified during delineation activities, COG will complete excavation as follows:
    - COG will proceed with lateral and vertical excavation of the impacted soil to below reclamation standards in the top four feet.
    - If impacted soil is identified deeper than 4 feet bgs, COG proposes to advance a soil boring to a depth of 105 feet bgs to confirm the Site Closure Criteria. The soil boring will be located within 0.5 miles of the Site and a field geologist will log and describe soils continuously. The soil boring will be left open for over 72 hours to allow for equilibration of groundwater levels within the temporary boring casing. After the 72-hour waiting period, depth to groundwater will be assessed and the soil boring will be backfilled following New Mexico Office of the State Engineer (NMOSE) approved procedures. A well record or soil boring log will be included in the follow up Closure Report.
    - Following removal of the impacted soil, 5-point composite samples will be collected at least every 200 square feet from the sidewalls and floor of the excavation. The 5-point composite samples will be collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. The excavation samples will be submitted for laboratory analysis of BTEX, TPH, and chloride.
    - The excavation will be backfilled with material purchased locally and recontoured to match pre-existing site conditions. The disturbed pasture area will be re-seeded with an approved BLM seed mixture.

COG will complete the delineation and excavation activities within 90 days of the date of approval of this Work Plan by the NMOCD. If warranted, the depth to water boring will be completed as soon as possible following approval from the surface landowner and scheduling with a driller. The Final C-141 is attached in Appendix D.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Scientist

Aimee Cole
Senior Managing Scientist

cc: Charles Beauvais, ConocoPhillips Company
Bureau of Land Management

Appendices:

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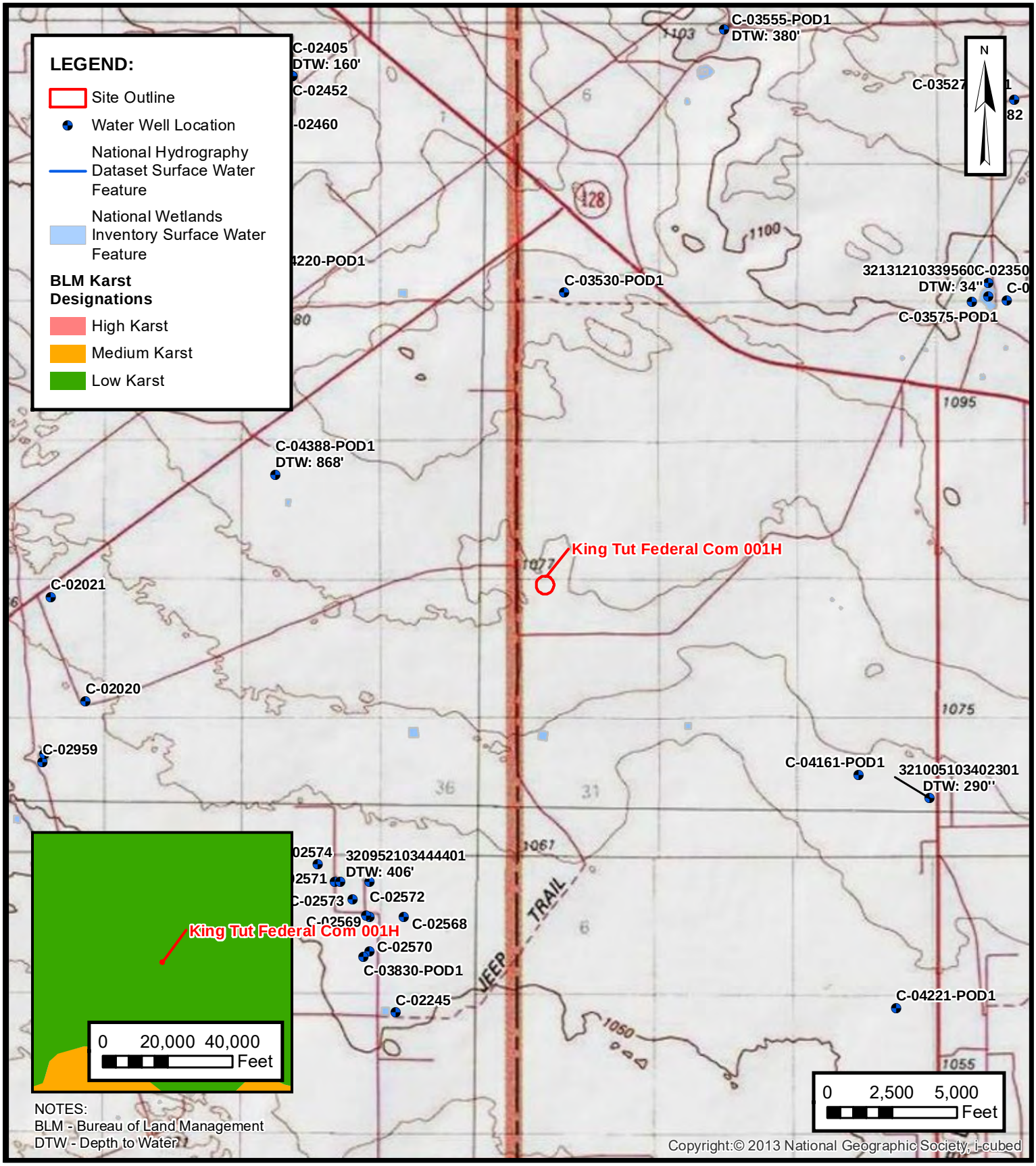
FIGURES



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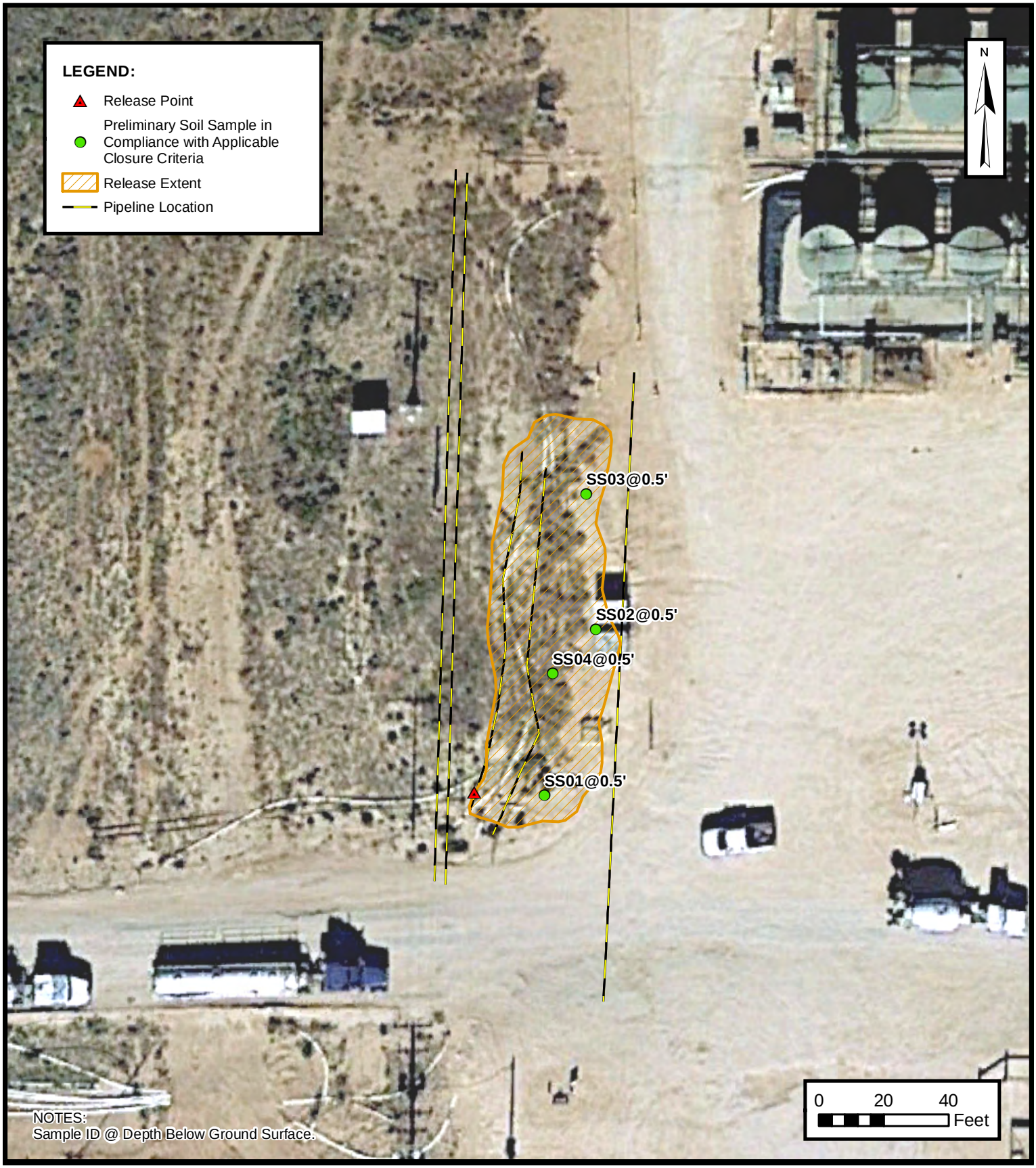
Environmental & Hydrogeologic Consultants

SITE LOCATION MAP

COG OPERATING, LLC
KING TUT FEDERAL COM 001H
NAPP2127234076
Unit D, Sec 30, T24S, R32E
Lea County, New Mexico

FIGURE
1



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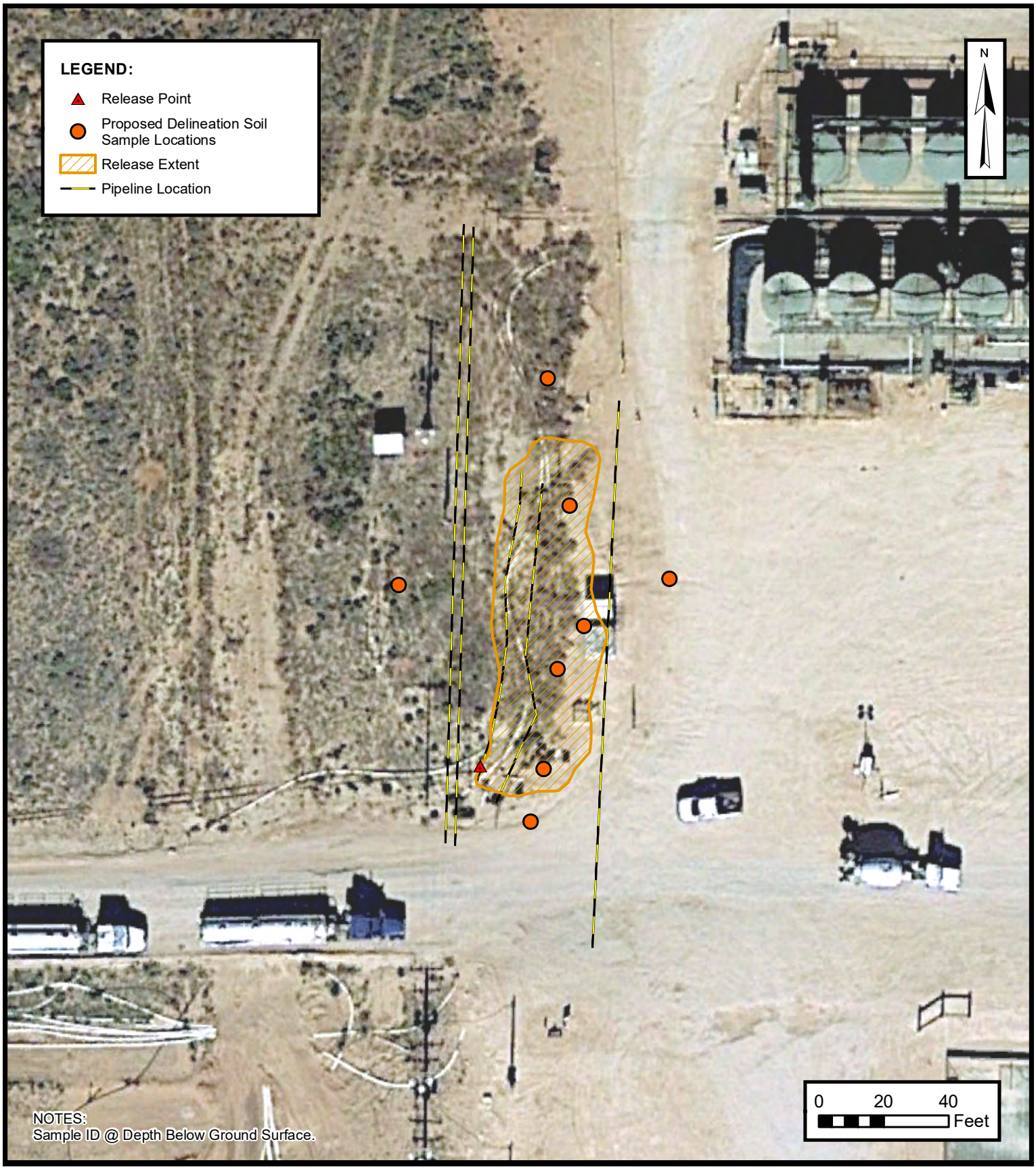
PRELIMINARY SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
KING TUT FEDERAL COM 001H
NAPP2127234076
Unit D, Sec 30, T24S, R32E
Lea County, New Mexico

FIGURE
2



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PROPOSED DELINEATION SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
KING TUT FEDERAL COM 001H
NAPP2127234076
Unit D, Sec 30, T24S, R32E
Lea County, New Mexico

FIGURE
3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
King Tut Federal Com 001H
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**
Preliminary Assessment Soil Samples										
SS01	10/04/2021	0 - 0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	419*
SS02	10/04/2021	0 - 0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	560*
SS03	10/04/2021	0 - 0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	533*
SS04	10/04/2021	0 - 0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	<49.9	600*

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
* indicates sample was collected in area to be reclaimed after remediation is complete; reclamation standard for chloride in the top 4 feet is 600 mg/kg
Grey text represents samples that have been excavated

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APPENDIX A

Referenced Well Records

National Water Information System: Web Interface

USGS Water Resources

Data Category: Site Information GO | Geographic Area: United States GO

Click to hideNews Bulletins

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

USGS 320952103444401 25S.31E.02.214411

Available data for this site SUMMARY OF ALL AVAILABLE DATA GO

Well Site

DESCRIPTION:

Latitude 32°09'50.0", Longitude 103°44'41.2" NAD83
Eddy County, New Mexico , Hydrologic Unit 13070001
Well depth: not determined.
Land surface altitude: 3,468.0 feet above NGVD29.
Well completed in "Other aquifers" (N9999OTHER) national aquifer.
Well completed in "Azotea Tongue of Seven Rivers Formation" (313AZOT) local aquifer

AVAILABLE DATA:

Data Type	Begin Date	End Date	Count
Field groundwater-level measurements	1992-11-05	1998-01-29	2
Revisions	Loading...		

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

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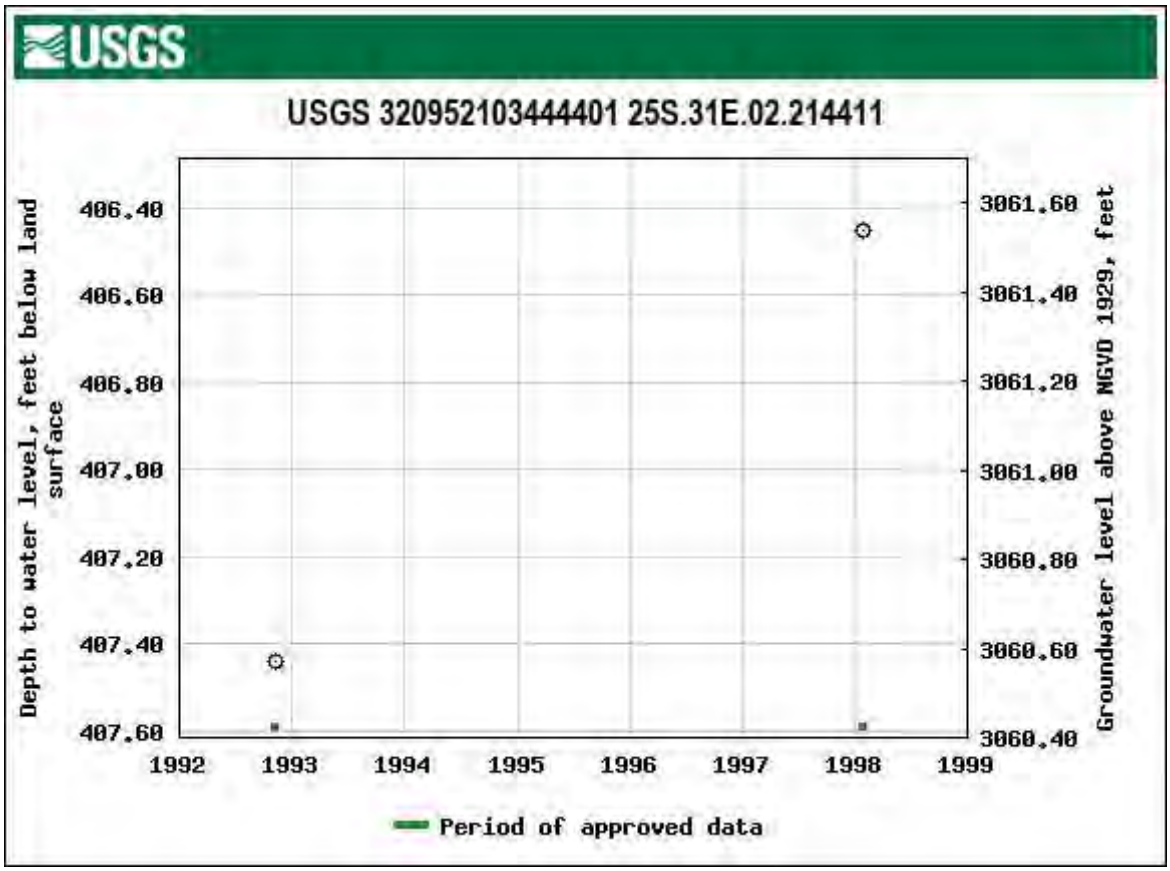
Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms


USGS
USGS 320952103444401 25S.31E.02.214411
Depth to water level, feet below land surface
406.40
406.60
406.80
407.00
407.20
407.40
407.60
Groundwater level above NGVD 1929, feet
3061.60
3061.40
3061.20
3061.00
3060.80
3060.60
3060.40
1992
1993
1994
1995
1996
1997
1998
1999
Period of approved data

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APPENDIX B

Photographic Log

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Photographic Log
COG Operating, LLC
King Tut Federal Com 001H
Incident Number NAPP2127234076

Photograph 1
Date: October 4, 2021
Description: View of release area during initial assessment activities.

Photograph 2
Date: October 4, 2021
Description: View of release area during initial assessment activities.

Photograph 3
Date: October 4, 2021
Description: View of release area during initial assessment activities.

Photograph 4
Date: October 4, 2021
Description: View of release area during initial assessment activities.

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APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-1370-1
Laboratory Sample Delivery Group: 31402909.180
Client Project/Site: King Tut Federal Com 001H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
10/15/2021 3:58:12 PM

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

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

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

Client: WSP USA Inc.
Project/Site: King Tut Federal Com 001H

Laboratory Job ID: 890-1370-1
SDG: 31402909.180

Table of Contents

Definitions/Glossary

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Qualifiers

GC VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD 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.

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Job ID: 890-1370-1

Laboratory: Eurofins Xenco, Carlsbad

Narrative

Job Narrative
890-1370-1

Receipt
The samples were received on 10/6/2021 9:40 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 880-9203 and analytical batch 880-9437 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-9371 and analytical batch 880-9354 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

HPLC/IC
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. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Client Sample ID: SS01 Lab Sample ID: 890-1370-1

Date Collected: 10/04/21 14:58 **Matrix: Solid**
Date Received: 10/06/21 09:40
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		10/11/21 11:51	10/15/21 06:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 06:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 06:38	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		10/11/21 11:51	10/15/21 06:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 06:38	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		10/11/21 11:51	10/15/21 06:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*10/11/21 11:51*	*10/15/21 06:38*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*10/11/21 11:51*	*10/15/21 06:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			10/14/21 15:26	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			10/11/21 13:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	49.9		mg/Kg		10/13/21 11:33	10/13/21 21:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/13/21 11:33	10/13/21 21:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/13/21 11:33	10/13/21 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*10/13/21 11:33*	*10/13/21 21:54*	*1*
o-Terphenyl	*114*		*70 - 130*	*10/13/21 11:33*	*10/13/21 21:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**419**		4.96		mg/Kg			10/15/21 11:45	1

Client Sample ID: SS02 Lab Sample ID: 890-1370-2

Date Collected: 10/04/21 15:02 **Matrix: Solid**
Date Received: 10/06/21 09:40
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *1	0.00201		mg/Kg		10/11/21 11:51	10/15/21 06:58	1
Toluene	<0.00201	U	0.00201		mg/Kg		10/11/21 11:51	10/15/21 06:58	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		10/11/21 11:51	10/15/21 06:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		10/11/21 11:51	10/15/21 06:58	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		10/11/21 11:51	10/15/21 06:58	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		10/11/21 11:51	10/15/21 06:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*10/11/21 11:51*	*10/15/21 06:58*	*1*

Eurofins Xenco, Carlsbad

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Client Sample ID: SS02 Lab Sample ID: 890-1370-2

Date Collected: 10/04/21 15:02 **Matrix: Solid**
Date Received: 10/06/21 09:40
Sample Depth: 0 - 0.5

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*127*		*70 - 130*	*10/11/21 11:51*	*10/15/21 06:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			10/14/21 15:26	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			10/11/21 13:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		10/13/21 11:33	10/13/21 22:56	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		10/13/21 11:33	10/13/21 22:56	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		10/13/21 11:33	10/13/21 22:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*110*		*70 - 130*	*10/13/21 11:33*	*10/13/21 22:56*	*1*
o-Terphenyl	*123*		*70 - 130*	*10/13/21 11:33*	*10/13/21 22:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**560**		4.95	mg/Kg			10/15/21 11:51	1

Client Sample ID: SS03 Lab Sample ID: 890-1370-3

Date Collected: 10/04/21 15:17 **Matrix: Solid**
Date Received: 10/06/21 09:40
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *1	0.00199	mg/Kg		10/11/21 11:51	10/15/21 07:18	1
Toluene	<0.00199	U	0.00199	mg/Kg		10/11/21 11:51	10/15/21 07:18	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		10/11/21 11:51	10/15/21 07:18	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		10/11/21 11:51	10/15/21 07:18	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		10/11/21 11:51	10/15/21 07:18	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		10/11/21 11:51	10/15/21 07:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*10/11/21 11:51*	*10/15/21 07:18*	*1*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*	*10/11/21 11:51*	*10/15/21 07:18*	*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			10/14/21 15:26	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			10/11/21 13:34	1

Client Sample Results

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Client Sample ID: SS03 Lab Sample ID: 890-1370-3

Date Collected: 10/04/21 15:17 **Matrix: Solid**
Date Received: 10/06/21 09:40
Sample Depth: 0 - 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/13/21 11:33	10/13/21 23:16	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/13/21 11:33	10/13/21 23:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/13/21 11:33	10/13/21 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*10/13/21 11:33*	*10/13/21 23:16*	*1*
o-Terphenyl	*120*		*70 - 130*	*10/13/21 11:33*	*10/13/21 23:16*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**533**		5.04		mg/Kg			10/15/21 11:56	1

Client Sample ID: SS04 Lab Sample ID: 890-1370-4

Date Collected: 10/04/21 15:24 **Matrix: Solid**
Date Received: 10/06/21 09:40
Sample Depth: 0 - 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *1	0.00200		mg/Kg		10/11/21 11:51	10/15/21 07:39	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 07:39	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 07:39	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/11/21 11:51	10/15/21 07:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 07:39	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/11/21 11:51	10/15/21 07:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*10/11/21 11:51*	*10/15/21 07:39*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*10/11/21 11:51*	*10/15/21 07:39*	*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			10/14/21 15:26	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			10/11/21 13:34	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		10/12/21 10:29	10/13/21 06:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		10/12/21 10:29	10/13/21 06:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		10/12/21 10:29	10/13/21 06:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*10/12/21 10:29*	*10/13/21 06:28*	*1*
o-Terphenyl	*92*		*70 - 130*	*10/12/21 10:29*	*10/13/21 06:28*	*1*

Client Sample Results

Client: WSP USA Inc.
Project/Site: King Tut Federal Com 001H

Job ID: 890-1370-1
SDG: 31402909.180

Client Sample ID: SS04
Date Collected: 10/04/21 15:24
Date Received: 10/06/21 09:40
Sample Depth: 0 - 0.5

Lab Sample ID: 890-1370-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	600		4.95		mg/Kg			10/15/21 12:02	1

Surrogate Summary

Client: WSP USA Inc.
Project/Site: King Tut Federal Com 001H

Job ID: 890-1370-1
SDG: 31402909.180

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)										
890-1368-A-1-H MSD	Matrix Spike Duplicate	124	10 S1-										
890-1368-A-1-J MS	Matrix Spike	1186 S1+	49 S1-										
890-1370-1	SS01	96	104										
890-1370-2	SS02	110	127										
890-1370-3	SS03	92	105										
890-1370-4	SS04	100	103										
LCS 880-9203/1-A	Lab Control Sample	87	80										
LCSD 880-9203/2-A	Lab Control Sample Dup	85	100										
MB 880-9203/5-A	Method Blank	101	104										
MB 880-9306/5-A	Method Blank	100	106										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-6818-A-1-I MS	Matrix Spike	101	94										
880-6818-A-1-J MSD	Matrix Spike Duplicate	105	98										
890-1370-1	SS01	102	114										
890-1370-1 MS	SS01	115	115										
890-1370-1 MSD	SS01	112	111										
890-1370-2	SS02	110	123										
890-1370-3	SS03	107	120										
890-1370-4	SS04	92	92										
LCS 880-9289/2-A	Lab Control Sample	90	85										
LCS 880-9371/2-A	Lab Control Sample	81	82										
LCSD 880-9289/3-A	Lab Control Sample Dup	87	81										
LCSD 880-9371/3-A	Lab Control Sample Dup	86	86										
MB 880-9289/1-A	Method Blank	102	106										
MB 880-9371/1-A	Method Blank	107	123										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: WSP USA Inc.
Project/Site: King Tut Federal Com 001H

Job ID: 890-1370-1
SDG: 31402909.180

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-9203/5-A
Matrix: Solid
Analysis Batch: 9437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9203

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 00:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 00:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 00:15	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/11/21 11:51	10/15/21 00:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/11/21 11:51	10/15/21 00:15	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/11/21 11:51	10/15/21 00:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*10/11/21 11:51*	*10/15/21 00:15*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*10/11/21 11:51*	*10/15/21 00:15*	*1*

Lab Sample ID: LCS 880-9203/1-A
Matrix: Solid
Analysis Batch: 9437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9203

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.100	0.07006		mg/Kg		70	70 - 130		
Toluene			0.100	0.07910		mg/Kg		79	70 - 130		
Ethylbenzene			0.100	0.08412		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1588		mg/Kg		79	70 - 130		
o-Xylene			0.100	0.08688		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*

Lab Sample ID: LCSD 880-9203/2-A
Matrix: Solid
Analysis Batch: 9437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9203

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1032	*1	mg/Kg		103	70 - 130	38	35
Toluene			0.100	0.1035		mg/Kg		103	70 - 130	27	35
Ethylbenzene			0.100	0.1105		mg/Kg		110	70 - 130	27	35
m-Xylene & p-Xylene			0.200	0.2112		mg/Kg		106	70 - 130	28	35
o-Xylene			0.100	0.1090		mg/Kg		109	70 - 130	23	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-1368-A-1-H MSD
Matrix: Solid
Analysis Batch: 9437

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 9203

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.00199	U *1 F1 F2	0.0990	0.006864	F1 F2	mg/Kg		7	70 - 130	183	35

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

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

Lab Sample ID: 890-1368-A-1-H MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9437 **Prep Batch: 9203**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	<0.00199	U F1 F2	0.0990	0.002203	F1 F2	mg/Kg		2	70 - 130	186	35
Ethylbenzene	<0.00199	U F1 F2	0.0990	0.01848	F1 F2	mg/Kg		19	70 - 130	71	35
m-Xylene & p-Xylene	<0.00398	U F1	0.198	0.05743	F1	mg/Kg		29	70 - 130	7	35
o-Xylene	<0.00199	U F1 F2	0.0990	0.03581	F1 F2	mg/Kg		36	70 - 130	63	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*124*		*70 - 130*
1,4-Difluorobenzene (Surr)	*10*	*S1-*	*70 - 130*

Lab Sample ID: 890-1368-A-1-J MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9437 **Prep Batch: 9203**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.00199	U *1 F1 F2	0.100	0.1553	F1	mg/Kg		155	70 - 130
Toluene	<0.00199	U F1 F2	0.100	0.06144	F1	mg/Kg		61	70 - 130
Ethylbenzene	<0.00199	U F1 F2	0.100	0.03870	F1	mg/Kg		39	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.201	0.05344	F1	mg/Kg		27	70 - 130
o-Xylene	<0.00199	U F1 F2	0.100	0.06883	F1	mg/Kg		69	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*1186*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*49*	*S1-*	*70 - 130*

Lab Sample ID: MB 880-9306/5-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9437 **Prep Batch: 9306**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		10/12/21 12:26	10/14/21 12:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		10/12/21 12:26	10/14/21 12:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		10/12/21 12:26	10/14/21 12:41	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		10/12/21 12:26	10/14/21 12:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		10/12/21 12:26	10/14/21 12:41	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		10/12/21 12:26	10/14/21 12:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*10/12/21 12:26*	*10/14/21 12:41*	*1*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*	*10/12/21 12:26*	*10/14/21 12:41*	*1*

QC Sample Results

Client: WSP USA Inc.
Project/Site: King Tut Federal Com 001H

Job ID: 890-1370-1
SDG: 31402909.180

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

Lab Sample ID: MB 880-9289/1-A
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 9289

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/12/21 10:29	10/12/21 21:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/12/21 10:29	10/12/21 21:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/12/21 10:29	10/12/21 21:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*10/12/21 10:29*	*10/12/21 21:31*	*1*
o-Terphenyl	*106*		*70 - 130*	*10/12/21 10:29*	*10/12/21 21:31*	*1*

Lab Sample ID: LCS 880-9289/2-A
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 9289

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	936.6		mg/Kg		94	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	928.8		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*90*		*70 - 130*
o-Terphenyl	*85*		*70 - 130*

Lab Sample ID: LCSD 880-9289/3-A
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 9289

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	856.5		mg/Kg		86	70 - 130	9	20
Diesel Range Organics (Over C10-C28)			1000	945.9		mg/Kg		95	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

Lab Sample ID: 880-6818-A-1-I MS
Matrix: Solid
Analysis Batch: 9267

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 9289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	876.6		mg/Kg		86	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	997	938.7		mg/Kg		94	70 - 130		

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

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

Lab Sample ID: 880-6818-A-1-I MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9267 **Prep Batch: 9289**

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 880-6818-A-1-J MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9267 **Prep Batch: 9289**

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	1000	928.9		mg/Kg		91	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	994.0		mg/Kg		99	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	98		70 - 130

Lab Sample ID: MB 880-9371/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9354 **Prep Batch: 9371**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		10/13/21 11:33	10/13/21 20:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		10/13/21 11:33	10/13/21 20:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		10/13/21 11:33	10/13/21 20:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	10/13/21 11:33	10/13/21 20:52	1
o-Terphenyl	123		70 - 130	10/13/21 11:33	10/13/21 20:52	1

Lab Sample ID: LCS 880-9371/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9354 **Prep Batch: 9371**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1243		mg/Kg		124	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	848.4		mg/Kg		85	70 - 130		

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

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

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

Lab Sample ID: LCSD 880-9371/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9354 **Prep Batch: 9371**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1252		mg/Kg		125	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	831.2		mg/Kg		83	70 - 130	2	20

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

Lab Sample ID: 890-1370-1 MS **Client Sample ID: SS01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9354 **Prep Batch: 9371**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	997	1402	F1	mg/Kg		141	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1076		mg/Kg		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*115*		*70 - 130*
o-Terphenyl	*115*		*70 - 130*

Lab Sample ID: 890-1370-1 MSD **Client Sample ID: SS01**
Matrix: Solid **Prep Type: Total/NA**
Analysis Batch: 9354 **Prep Batch: 9371**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F1	1000	1334	F1	mg/Kg		133	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1043		mg/Kg		103	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*112*		*70 - 130*
o-Terphenyl	*111*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-9409/1-A **Client Sample ID: Method Blank**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 9528

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			10/15/21 09:50	1

QC Sample Results

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-9409/2-A **Client Sample ID: Lab Control Sample**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 9528

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			250	255.4		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-9409/3-A **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 9528

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	256.1		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 890-1368-A-1-K MS **Client Sample ID: Matrix Spike**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 9528

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	173	F1	249	389.0	F1	mg/Kg		87	90 - 110		

Lab Sample ID: 890-1368-A-1-K MSD **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid **Prep Type: Soluble**
Analysis Batch: 9528

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	173	F1	249	390.5	F1	mg/Kg		87	90 - 110	0	20

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

GC VOA

Prep Batch: 9203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Total/NA	Solid	5035	
890-1370-2	SS02	Total/NA	Solid	5035	
890-1370-3	SS03	Total/NA	Solid	5035	
890-1370-4	SS04	Total/NA	Solid	5035	
MB 880-9203/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-9203/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-9203/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1368-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	
890-1368-A-1-J MS	Matrix Spike	Total/NA	Solid	5035	

Prep Batch: 9306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-9306/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 9437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Total/NA	Solid	8021B	9203
890-1370-2	SS02	Total/NA	Solid	8021B	9203
890-1370-3	SS03	Total/NA	Solid	8021B	9203
890-1370-4	SS04	Total/NA	Solid	8021B	9203
MB 880-9203/5-A	Method Blank	Total/NA	Solid	8021B	9203
MB 880-9306/5-A	Method Blank	Total/NA	Solid	8021B	9306
LCS 880-9203/1-A	Lab Control Sample	Total/NA	Solid	8021B	9203
LCSD 880-9203/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	9203
890-1368-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	9203
890-1368-A-1-J MS	Matrix Spike	Total/NA	Solid	8021B	9203

Analysis Batch: 9497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Total/NA	Solid	Total BTEX	
890-1370-2	SS02	Total/NA	Solid	Total BTEX	
890-1370-3	SS03	Total/NA	Solid	Total BTEX	
890-1370-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 9189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Total/NA	Solid	8015 NM	
890-1370-2	SS02	Total/NA	Solid	8015 NM	
890-1370-3	SS03	Total/NA	Solid	8015 NM	
890-1370-4	SS04	Total/NA	Solid	8015 NM	

Analysis Batch: 9267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-4	SS04	Total/NA	Solid	8015B NM	9289
MB 880-9289/1-A	Method Blank	Total/NA	Solid	8015B NM	9289
LCS 880-9289/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9289
LCSD 880-9289/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9289
880-6818-A-1-I MS	Matrix Spike	Total/NA	Solid	8015B NM	9289
880-6818-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	9289

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

GC Semi VOA

Prep Batch: 9289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-9289/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9289/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9289/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-6818-A-1-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-6818-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 9354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Total/NA	Solid	8015B NM	9371
890-1370-2	SS02	Total/NA	Solid	8015B NM	9371
890-1370-3	SS03	Total/NA	Solid	8015B NM	9371
MB 880-9371/1-A	Method Blank	Total/NA	Solid	8015B NM	9371
LCS 880-9371/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	9371
LCSD 880-9371/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	9371
890-1370-1 MS	SS01	Total/NA	Solid	8015B NM	9371
890-1370-1 MSD	SS01	Total/NA	Solid	8015B NM	9371

Prep Batch: 9371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Total/NA	Solid	8015NM Prep	
890-1370-2	SS02	Total/NA	Solid	8015NM Prep	
890-1370-3	SS03	Total/NA	Solid	8015NM Prep	
MB 880-9371/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-9371/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-9371/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-1370-1 MS	SS01	Total/NA	Solid	8015NM Prep	
890-1370-1 MSD	SS01	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 9409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Soluble	Solid	DI Leach	
890-1370-2	SS02	Soluble	Solid	DI Leach	
890-1370-3	SS03	Soluble	Solid	DI Leach	
890-1370-4	SS04	Soluble	Solid	DI Leach	
MB 880-9409/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-9409/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-9409/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1368-A-1-K MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1368-A-1-K MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 9528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-1370-1	SS01	Soluble	Solid	300.0	9409
890-1370-2	SS02	Soluble	Solid	300.0	9409
890-1370-3	SS03	Soluble	Solid	300.0	9409
890-1370-4	SS04	Soluble	Solid	300.0	9409
MB 880-9409/1-A	Method Blank	Soluble	Solid	300.0	9409
LCS 880-9409/2-A	Lab Control Sample	Soluble	Solid	300.0	9409

QC Association Summary

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

HPLC/IC (Continued)

Analysis Batch: 9528 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-9409/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	9409
890-1368-A-1-K MS	Matrix Spike	Soluble	Solid	300.0	9409
890-1368-A-1-K MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	9409

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Client Sample ID: SS01 Lab Sample ID: 890-1370-1

Date Collected: 10/04/21 14:58 **Matrix: Solid**
Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	9203	10/11/21 11:51	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9437	10/15/21 06:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			9497	10/14/21 15:26	MR	XEN MID
Total/NA	Analysis	8015 NM		1			9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9371	10/13/21 11:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9354	10/13/21 21:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1			9528	10/15/21 11:45	CH	XEN MID

Client Sample ID: SS02 Lab Sample ID: 890-1370-2

Date Collected: 10/04/21 15:02 **Matrix: Solid**
Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	9203	10/11/21 11:51	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9437	10/15/21 06:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			9497	10/14/21 15:26	MR	XEN MID
Total/NA	Analysis	8015 NM		1			9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.05 g	10 mL	9371	10/13/21 11:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9354	10/13/21 22:56	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1			9528	10/15/21 11:51	CH	XEN MID

Client Sample ID: SS03 Lab Sample ID: 890-1370-3

Date Collected: 10/04/21 15:17 **Matrix: Solid**
Date Received: 10/06/21 09:40

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	9203	10/11/21 11:51	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9437	10/15/21 07:18	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			9497	10/14/21 15:26	MR	XEN MID
Total/NA	Analysis	8015 NM		1			9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	9371	10/13/21 11:33	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9354	10/13/21 23:16	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1			9528	10/15/21 11:56	CH	XEN MID

Client Sample ID: SS04 Lab Sample ID: 890-1370-4

Date Collected: 10/04/21 15:24 **Matrix: Solid**
Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	9203	10/11/21 11:51	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	9437	10/15/21 07:39	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			9497	10/14/21 15:26	MR	XEN MID

Eurofins Xenco, Carlsbad

Lab Chronicle

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Client Sample ID: SS04 **Lab Sample ID: 890-1370-4**
Date Collected: 10/04/21 15:24 **Matrix: Solid**
Date Received: 10/06/21 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			9189	10/11/21 13:34	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	9289	10/12/21 10:29	DM	XEN MID
Total/NA	Analysis	8015B NM		1			9267	10/13/21 06:28	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	9409	10/13/21 18:21	CA	XEN MID
Soluble	Analysis	300.0		1			9528	10/15/21 12:02	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Method Summary

Client: WSP USA Inc. Job ID: 890-1370-1
Project/Site: King Tut Federal Com 001H SDG: 31402909.180

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: WSP USA Inc.
Project/Site: King Tut Federal Com 001H

Job ID: 890-1370-1
SDG: 31402909.180

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-1370-1	SS01	Solid	10/04/21 14:58	10/06/21 09:40	0 - 0.5
890-1370-2	SS02	Solid	10/04/21 15:02	10/06/21 09:40	0 - 0.5
890-1370-3	SS03	Solid	10/04/21 15:17	10/06/21 09:40	0 - 0.5
890-1370-4	SS04	Solid	10/04/21 15:24	10/06/21 09:40	0 - 0.5

XENCO LABORATORIES

Chain of Custody

Work Order No: ____________

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
Atlanta, GA (770) 449-8800
www.xenco.com

Page 1 of 1

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

Work Order Comments

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

Project Name:	King Tut Federal Com 001H	Turn Around	
Project Number:	31402909.180	Routine:	☑
Location:	Lea County	Rush:	
Sampler's Name:	Fatima Smith	Due Date:	

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Temperature (°C):	2.6/2.4	Thermometer ID	TNM-007
Received Intact:	(Yes) No		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Total Containers:	

ANALYSIS REQUEST

890-1370 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	TPH (EPA 8015)	BTEX (EPA 0=8021)	Chloride (EPA 300.0)	Sample Comments
SS01	S	10/4/2021	1458	0 - 0.5'	1	X	X	X	
SS02	S	10/4/2021	1502	0 - 0.5'	1	X	X	X	
SS03	S	10/4/2021	1517	0 - 0.5'	1	X	X	X	
SS04	S	10/4/2021	1524	0 - 0.5'	1	X	X	X	

Work Order Notes

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

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 [signature]	[signature] 10-6-21	10/6/21 @ 0945	2		
3			4		
5			6		

Revised Date101419 Rev. 2019.1

Eurofins Xenco, Carlsbad
1089 N Canal St
Carlsbad NM 88220
Phone 575-988-3199 Fax 575-988-3199

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-451 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: jessica.kramer@eurofinset.com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Xenco		Accreditations Required (See note): NELAP - Louisiana, NELAP - Texas		Job #: 890-1370-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 10/12/2021			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: King Tut Federal Com 001H	Project #: 89000048			
Site:	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep Full TPH	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc BTEX	Total_BTEX_GCV	8015MOD_Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SS01 (890-1370-1)	10/4/21	14 58 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-1370-2)	10/4/21	15 02 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-1370-3)	10/4/21	15 17 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-1370-4)	10/4/21	15 24 Mountain		Solid			X	X	X	X	X	1	

Preservation Codes

A - HCL	M Hexane
B NaOH	N - None
C - Zn Acetate	O AsNaO2
D Nitric Acid	P - Na2O4S
E NaHSO4	Q Na2SO3
F MeOH	R Na2S2O3
G Amchlor	S H2SO4
H Ascorbic Acid	T TSP Dodecahydrate
I Ice	U - Acetone
J DI Water	V MCAA
K EDTA	W - pH 4-5
L EDA	Z other (specify)

Other:

Note Since laboratory accreditations are subject to change Eurofins Xenco LLC places the ownership of method analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Xenco LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Xenco LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said complicance to Eurofins Xenco LLC.

Possible Hazard Identification

Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested I, II III IV Other (specify) — Primary Deliverable Rank. 2

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date		Time	Method of Shipment:	
Relinquished by: Ace Craft 10·6 21	Date/Time:	Company	Received by: [signature]	Date/Time: 10-7-21 11:30am	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
Custody Seals Intact Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks. 2.1/2.0		

Ver 06/08/2021

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1370-1
SDG Number: 31402909.180

Login Number: 1370
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Xenco, Carlsbad

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

Login Sample Receipt Checklist

Client: WSP USA Inc.

Job Number: 890-1370-1
SDG Number: 31402909.180

Login Number: 1370
List Number: 2
Creator: Copeland, Tatiana

List Source: Eurofins Xenco, Midland
List Creation: 10/07/21 11:15 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1 / 2.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

ENSOLUM

APPENDIX D

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	
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)

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

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

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

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

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

Printed Name _____ Title: _____

Signature:  Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 10/01/2021

L48 Spill Volume Estimate Form

Operator:	King tut
Asset Area:	DBE
Release Discovery Date & Time:	9/10/2021, 11:30
Release Type:	Produced Water
Provide any known details about the event:	Busted swd flex line

Spill Calculation - Subsurface Spill - Rectangle

Was the release on pad or off-pad?	See reference table below
Has it rained at least a half inch in the last 24 hours?	See reference table below

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Depth (in.)	Soil Spilled-Fluid Saturation	Estimated volume of each area (bbl.)	Total Estimated Volume of Spill (bbl.)	Percentage of Oil if Spilled Fluid is a Mixture	Total Estimated Volume of Spilled Oil (bbl.)	Total Estimated Volume of Spilled Liquid other than Oil (bbl.)
Rectangle A	20.0	87.0	0.25	10.00%	6.453	0.645			
Rectangle B	31.0	35.0	0.50	10.00%	8.047	0.805			
Rectangle C					0.000	0.000			
Rectangle D					0.000	0.000			
Rectangle E					0.000	0.000			
Rectangle F					0.000	0.000			
Rectangle G					0.000	0.000			
Rectangle H					0.000	0.000			
Rectangle I					0.000	0.000			
Rectangle J					0.000	0.000			
					Total Volume Release:	14.500			

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2127234076
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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2127234076
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: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 05/17/2022

email: Charles.R.Beauvais@ConocoPhillips.com Telephone: (575) 988-2043

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2127234076
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 5-17-2022

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: _____ Date: _____

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Jennifer Nobui Date: 05/31/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
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 107590

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 107590
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Remediation Plan Approved with Conditions. The depth to groundwater has not been adequately determined. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided in the submission. The responsible party may choose to remediate to the most stringent levels listed in Table 1 of 19.15.29 NMAC in lieu of drilling to determine the depth to groundwater.	5/31/2022