CONCHO

May 15, 2021

Oil Conservation Division, District I
1625 N. French Dr.
Hobbs, NM 88240

Closure Report
Warhawk 3 Federal
Com 001H
Incident #NAPP2105550009
GPS: 32.69477, -103.76208
Unit Letter D, Section 03, Township 19 South, Range 32 East
Lea County, New Mexico

To Whom It May Concern,

COG Operating, LLC (COG) is pleased to submit the following Closure Report in response to a release that occurred at the Warhawk 3 Federal Com 001H. The release is located in Unit Letter D, Section 03, Township 19 South, Range 32 East Lea County, New Mexico. The release occurred at latitude 32.69477, longitude -103.76208.

BACKGROUND

On February 8, 2021, a release was discovered and a C-141 initial report was submitted and approved by the Bureau of Land Management (BLM) and the Oil Conservation District 1 (OCD). The initial C-141 is presented in Appendix A. The release was caused by theft and sabotage which left seals broken and valves open. This caused fluids to come out of the load line and resulted in approximately forty-eight (48) barrels of oil being released on the pad. A vac truck was immediately utilized and forty-five (45) barrels of oil was recovered.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the New Mexico Office of the State Engineer (NMOSE) the nearest water well (POD # CP 00640 POD1) is located approximately 3.67 miles southwest of the release point and indicates that groundwater in the project vicinity one hundred and two (102) feet below ground surface (BGS). In addition, according to the United States Geological Survey (USGS) 2 wells are located approximately 1.3 miles southwest and northeast 1.5 miles of the release point and indicates that groundwater in the project vicinity. One well dated in 1982 showed a depth of one hundred and seventeen (117) feet below ground surface (BGS) and a second well dated in 1958 showed a depth of three hundred and sixty-five (365) feet below ground surface. The water well information is shown in Appendix B.

A risk-based evaluation and site determination was performed in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). According to the site characterization evaluation the affected area has a low potential for cave karst, no other receptors (water wells, playas, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The groundwater data and the site characterization evaluation data are summarized in Appendix B. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
Low Karst	>100 ft

Delineation and Closure Criteria:

Recommended Remedial Action Levels (RRALs)	
Chlorides	20,000 mg/kg
TPH (GRO and DRO and MRO)	2,500 mg/kg
Benzene	50 mg/kg
Total BTEX	10 mg/kg

ASSESSMENT

On February 26, 2021, a back-hoe was utilized to collect soil samples to delineate the impacted area. A total of three (3) trenches were installed to a depth of three (3) ft bgs. The sampling results are summarized in Table 1. The analytical reports are shown in Appendix B.

REMEDIATION ACTIVITIES

Based on the assessment results, the area of T-2 and T-3 were below NMOCD closure criteria. A three (3) inch scrape was performed to remove any surface staining. The impacted material in the area of T-1 was excavated to a depth of one (1) foot bgs. Approximately 120 cubic yards were transported to proper disposal.

SAMPLING

Once the excavation was complete, confirmation soil samples were collected from the excavated areas. To collect representative samples, composite samples (5-point composite) were collected every 200 square feet from the bottom and sidewalls of the excavated areas. The soil samples were analyzed for the constituents of concern. Discrete soil samples were collected from the excavation if any "hot spots" are encountered during the excavation.

SITE RECLAMATION AND RESTORATION

Upon completion of the remediation the excavation was backfilled with top soil and contoured to match the surrounding terrain. The surface was left in a rough condition to approximate natural surface deviations. The site will be mechanically seeded with the soil specific State Land seed mixture once proper seasonal conditions exist.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the Bureau of Land Management grant closure approval for the Warhawk 3 Federal Com #001H incident (#NAPP2105550009) that occurred on February 8, 2021.

Should you have any questions or concerns on the remediation activities, please do not hesitate to contact me.

Sincerely,

Robert Grubbs Jr.
HSE Coordinator
Cell:432-661-6601
robert.d.grubbs@conocophillips.com

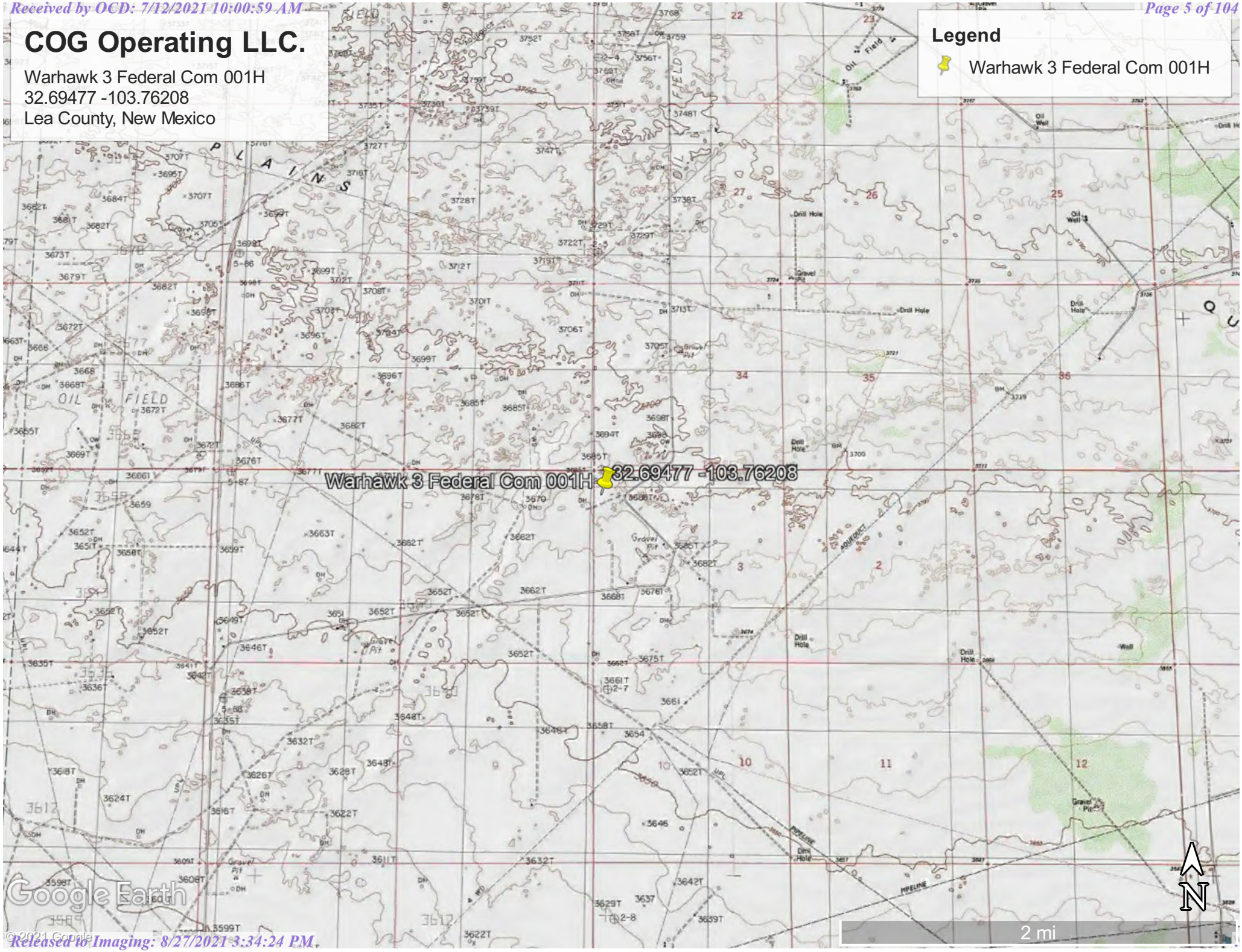
Maps

COG Operating LLC.

Warhawk 3 Federal Com 001H
32.69477 -103.76208
Lea County, New Mexico

Legend

Warhawk 3 Federal Com 001H



COG Operating LLC.

Warhawk 3 Federal Com 001H
32.69477 -103.76208
Lea County, New Mexico

Legend

- Release Area
- Sample Points

COG Operating LLC.

Warhawk 3 Federal Com 001H
32.69477 -103.76208
Lea County, New Mexico

warhawk 3 federal com 1h battery

Legend

- 1.5' Excavation
- 0.5' Excavation
- Sample Point

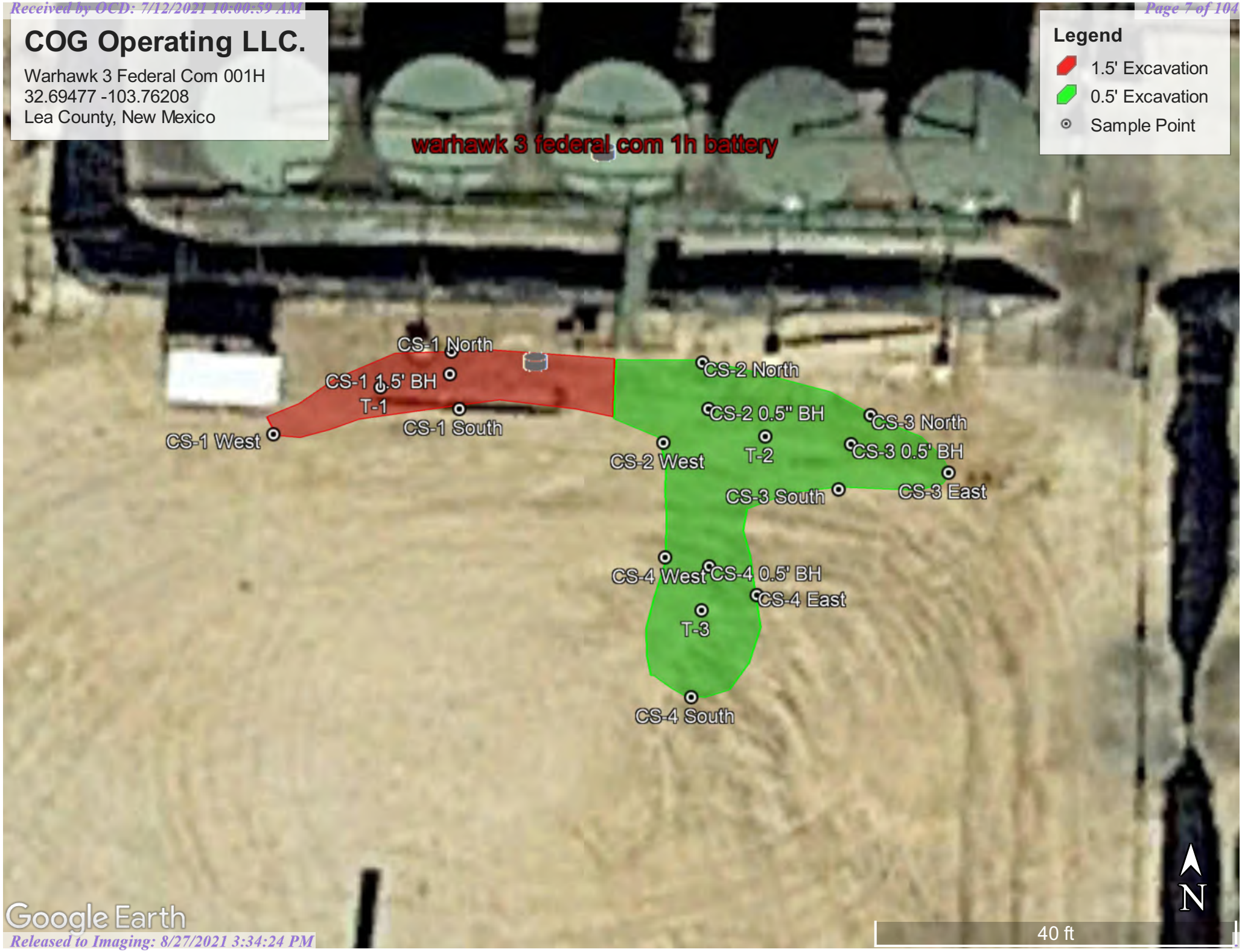


Table of Analytical Data

Warhawk 3 Federal Com 001H (2/8/21)
Lea Co, NM

Sample ID	Sample Date	Sample Depth (ft)	Soil Status		TPH (mg/kg)							Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	MRO	*Total*	GRO	DRO	*Total*			
Average Depth to Groundwater (ft)			**>100'**											
T-1 0-1'	2/26/2021	0-1'		X	1230	2190	134	5930	1230	2190	62.5	3.84	34.3	11.6
T-1 2'	2/26/2021	2'			<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	0.0271	0.151	11.3
T-1 3'	2/26/2021	3'	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0598	0.157	9.76
CS-1 North	3/10/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<4.95
CS-1 South	3/10/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	<5.03
CS-1 East	3/10/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	<4.99
CS-1 West	3/10/2021	-	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	5.02
CS-1 Bottom Hole 1.5'	3/10/2021	1.5'	X		<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00201	<0.00201	<5.05
T-2 0-1'	2/26/2021	0-1'		X	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0187	0.274	63.4
T-2 2'	2/26/2021	2'	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	0.0250	0.110	99.6
T-2 3'	2/26/2021	3'	X		<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	0.0483	0.160	11.6
CS-2 North	3/12/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	5.50
CS-2 West	3/12/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	5.35
CS-2 Bottom Hole 0.5'	3/12/2021	0.5'	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	5.83
T-3 0-1'	2/26/2021	0-1'		X	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0251	0.258	11.6
T-3 2'	2/26/2021	2'	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	0.0417	0.247	13.1
T-3 3'	2/26/2021	3'	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	0.0477	0.155	12.2
CS-3 North	3/12/2021	-	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00202	<0.00202	6.11
CS-3 South	3/12/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00202	<0.00202	6.90
CS-3 East	3/12/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	7.48
CS-3 Bottom Hole 0.5'	3/12/2021	0.5'	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00201	<0.00201	5.64
CS-4 South	3/12/2021	-	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00200	<0.00200	5.65
CS-4 East	3/12/2021	-	X		<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<49.8	<0.00200	<0.00200	6.64
CS-4 West	3/12/2021	-	X		<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<0.00200	<0.00200	5.11
CS-4 Bottom Hole 0.5'	3/12/2021	0.5'	X		<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<49.9	<0.00199	<0.00199	6.08

Excavated

Photos

Excavated area of AH-1 and AH-2

Excavated area of AH-3

Backfilled area of AH-1 and AH-2

Backfilled area of AH-3

Appendix A

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		

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: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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?	_____ (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	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: _____

Printed Name: _____ Title: _____

Appendix B

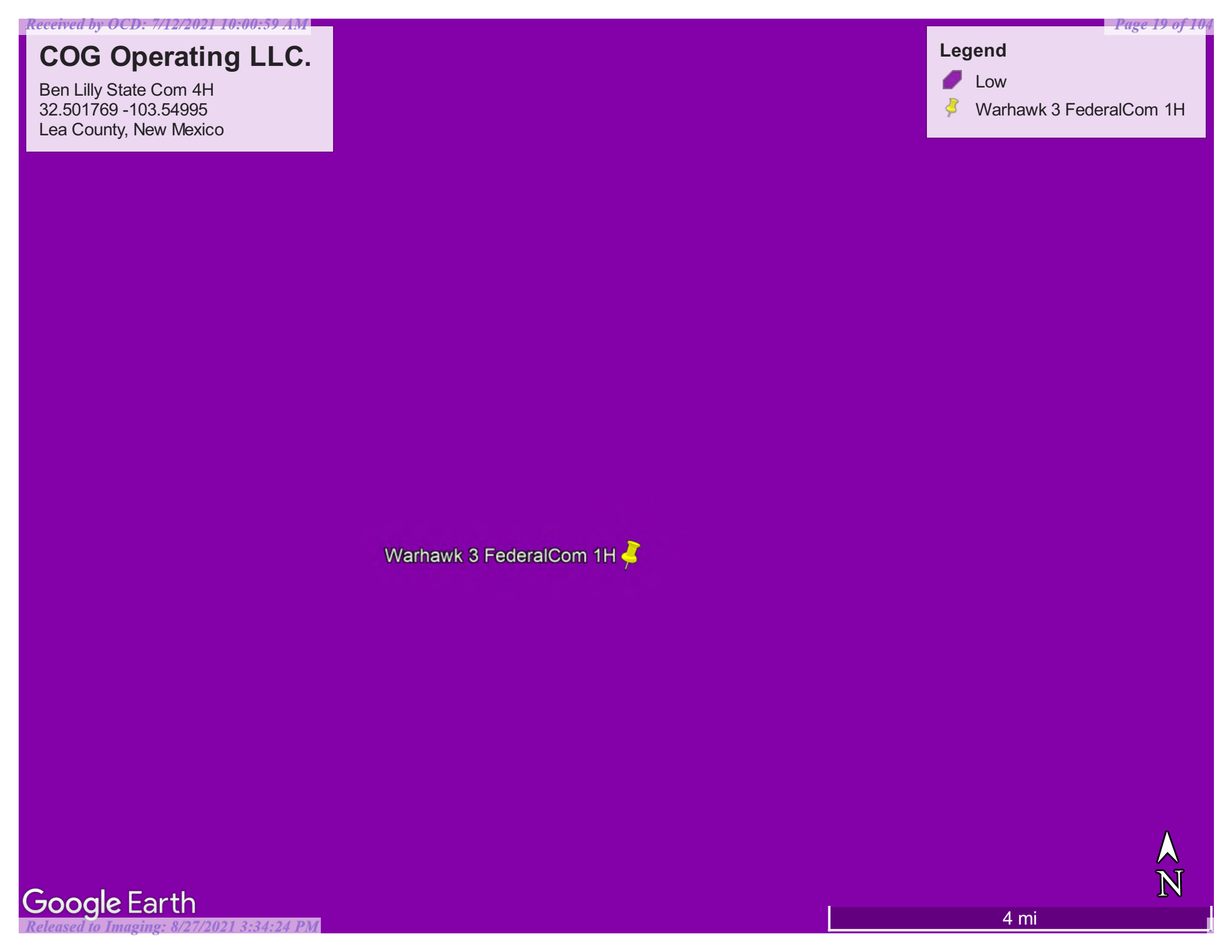
Site Assessment Data

COG Operating LLC.

Ben Lilly State Com 4H
32.501769 -103.54995
Lea County, New Mexico

Legend

- Low
- Warhawk 3 FederalCom 1H



National Flood Hazard Layer FIRMette

FEMA

103°33'19"W 32°30'21"N

103°32'41"W 32°29'51"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/11/2021 at 10:04 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

COG Operating LLC.

Warhawk 3 Federal Com 001H
32.69477 -103.76208
Lea County, New Mexico

Legend

- Warhawk 3 FederalCom 1H
- Well

New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) Q64	Q16	Q4	Sec	Tws	Rng	(NAD83 UTM in meters) X	Y
	CP 00640 POD1	2	2		19	19S	32E	612621	3613280*

Driller License:	882	**Driller Company:**	LARRY'S DRILLING & PUMP CO.		
Driller Name:	FELKINS, LARRY				
Drill Start Date:	02/08/1982	**Drill Finish Date:**	02/09/1982	**Plug Date:**	
Log File Date:	03/04/1982	**PCW Rcv Date:**		**Source:**	Shallow
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	
Casing Size:		**Depth Well:**	260 feet	**Depth Water:**	102 feet

***UTM location was derived from PLSS - see Help**

National Water Information System: Web Interface

USGS Water Resources | Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

site_no list =

- 324040103464801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

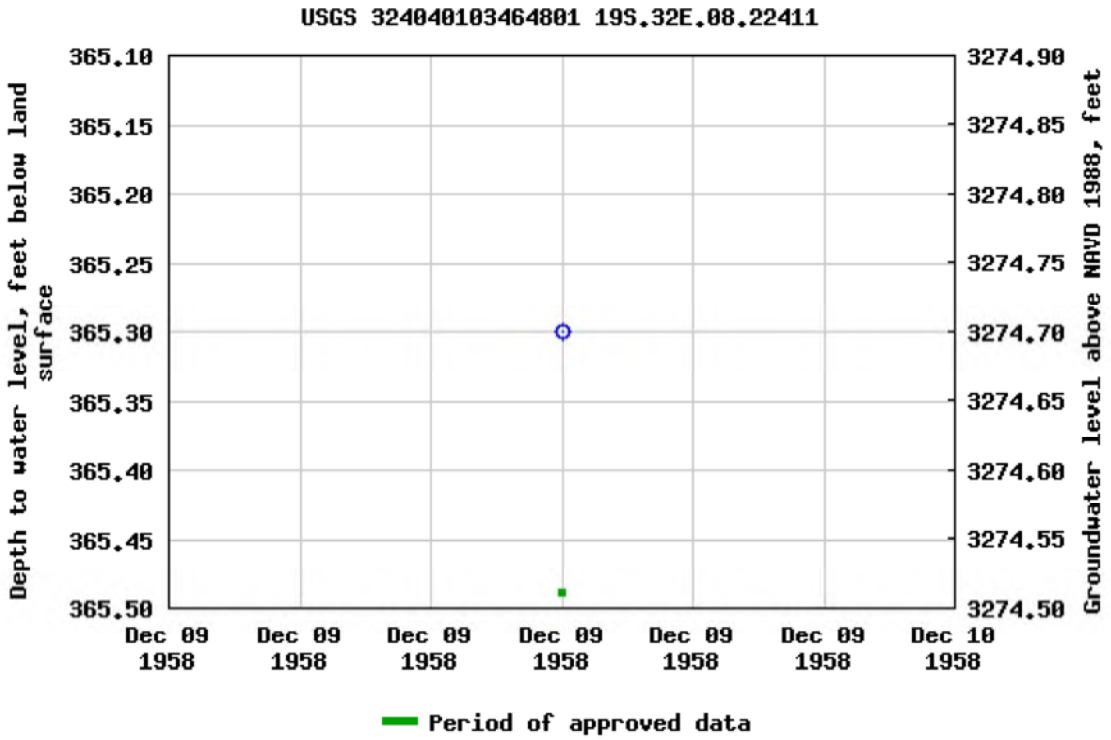
USGS 324040103464801 19S.32E.08.22411

Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°40'40", Longitude 103°46'48" NAD27
Land-surface elevation 3,640 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

National Water Information System: Web Interface

USGS Water Resources | Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

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

Groundwater levels for the Nation

* IMPORTANT: Next Generation Station Page

Search Results -- 1 sites found

site_no list =

- 324224103444101

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

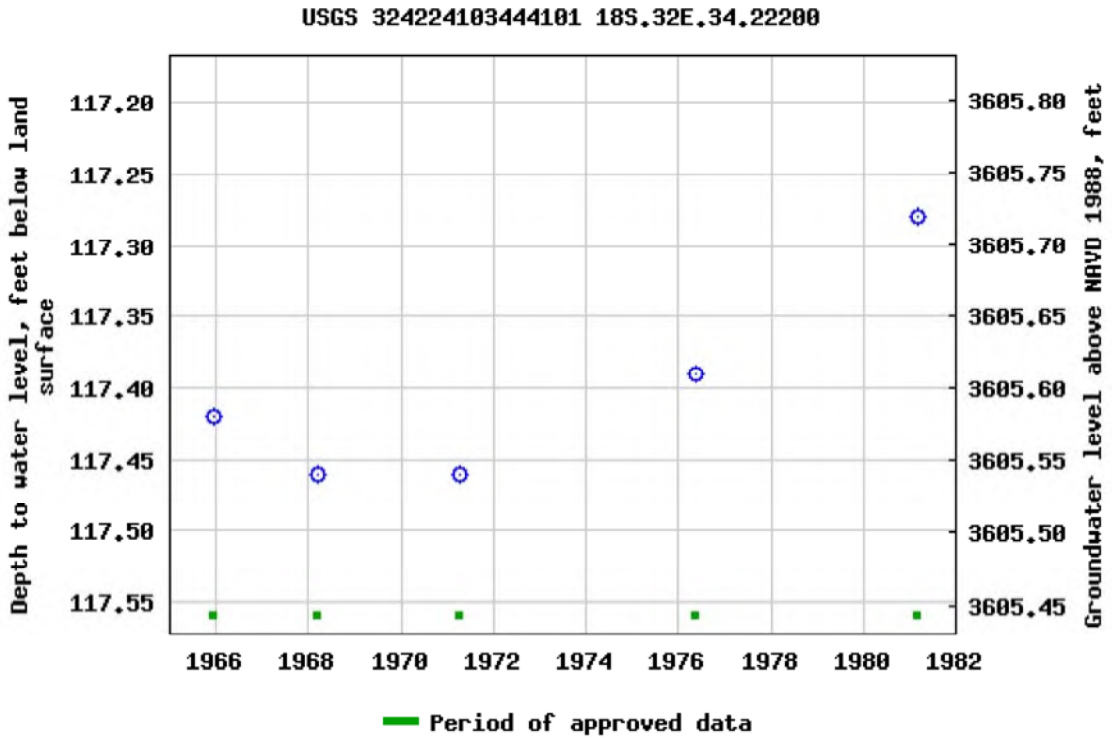
USGS 324224103444101 18S.32E.34.22200

Groundwater: Field measurements | GO

Lea County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°42'24", Longitude 103°44'41" NAD27
Land-surface elevation 3,723 feet above NAVD88
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

Appendix C

Analytical Reports

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 689823

Conoco Phillips-Midland, Midland, TX

Project Name: Warhawk 3 Federal Com 001H (2/8/21)

Project Id:

Contact: Ike Tavarez

Project Location: Reeves, Texas

Date Received in Lab: Mon 03.01.2021 16:23

Report Date: 03.05.2021 11:07

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	689823-001		689823-002		689823-003		689823-004		689823-005		689823-006	
	Field Id:	T-1 0-1'		T-1 2'		T-1 3'		T-2 0-1'		T-2 2'		T-2 3'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	02.26.2021 00:00		02.26.2021 00:00		02.26.2021 00:00		02.26.2021 00:00		02.26.2021 00:00		02.26.2021 00:00	
BTEX by EPA 8021B	***Extracted:***	03.02.2021 10:30		03.02.2021 10:30		03.02.2021 10:30		03.02.2021 10:30		03.02.2021 10:30		03.02.2021 10:30	
	Analyzed:	03.02.2021 19:44		03.02.2021 15:59		03.02.2021 16:20		03.02.2021 16:40		03.02.2021 17:01		03.02.2021 17:21	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		3.84	0.0396	0.0271	0.00199	0.0598	0.00198	0.0187	0.00199	0.0250	0.00200	0.0483	0.00199
Toluene		19.4 D	0.396	0.0564	0.00199	0.0745	0.00198	0.0889	0.00199	0.0489	0.00200	0.0794	0.00199
Ethylbenzene		4.38 D	0.396	0.0249	0.00199	0.0113	0.00198	0.0607	0.00199	0.0141	0.00200	0.0158	0.00199
m,p-Xylenes		4.32 D	0.792	0.0279	0.00398	0.00750	0.00397	0.0684	0.00398	0.0148	0.00401	0.0109	0.00398
o-Xylene		2.39 D	0.396	0.0143	0.00199	0.00379	0.00198	0.0373	0.00199	0.00763	0.00200	0.00553	0.00199
Total Xylenes		6.71	0.396	0.0422	0.00199	0.0113	0.00198	0.106	0.00199	0.0224	0.00200	0.0164	0.00199
Total BTEX		34.3	0.0396	0.151	0.00199	0.157	0.00198	0.274	0.00199	0.110	0.00200	0.160	0.00199
Chloride by EPA 300	***Extracted:***	03.03.2021 15:05		03.03.2021 15:05		03.03.2021 15:05		03.03.2021 15:05		03.03.2021 15:05		03.03.2021 15:05	
	Analyzed:	03.03.2021 22:55		03.03.2021 23:03		03.03.2021 23:10		03.03.2021 23:33		03.03.2021 23:40		03.04.2021 00:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11.6	5.03	11.3	4.98	9.76	4.96	63.4	5.04	99.6	5.00	11.6	5.00
TPH by SW8015 Mod	***Extracted:***	03.02.2021 13:00		03.02.2021 12:00		03.02.2021 12:00		03.02.2021 12:00		03.02.2021 12:00		03.02.2021 12:00	
	Analyzed:	03.03.2021 04:57		03.03.2021 02:47		03.03.2021 03:09		03.03.2021 03:30		03.03.2021 03:52		03.03.2021 04:14	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		1230	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Diesel Range Organics (DRO)		2190	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		154	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Motor Oil Range Hydrocarbons (MRO)		134	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8
Total TPH		5930	50.0	<49.8	49.8	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 689823

Conoco Phillips-Midland, Midland, TX

Project Name: Warhawk 3 Federal Com 001H (2/8/21)

Project Id:

Contact: Ike Tavarez

Project Location: Reeves, Texas

Date Received in Lab: Mon 03.01.2021 16:23

Report Date: 03.05.2021 11:07

Project Manager: Jessica Kramer

Analysis Requested											
	Lab Id:	689823-007		689823-008		689823-009					
	Field Id:	T-3 0-1'		T-3 2'		T-3 3'					
	Depth:										
	Matrix:	SOIL		SOIL		SOIL					
	Sampled:	02.26.2021 00:00		02.26.2021 00:00		02.26.2021 00:00					
BTEX by EPA 8021B	***Extracted:***	03.02.2021 10:30		03.02.2021 10:30		03.02.2021 10:30					
	Analyzed:	03.02.2021 17:41		03.02.2021 19:04		03.02.2021 19:24					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		0.0251	0.00202	0.0417	0.00202	0.0477	0.00200				
Toluene		0.0650	0.00202	0.0923	0.00202	0.0719	0.00200				
Ethylbenzene		0.0599	0.00202	0.0437	0.00202	0.0169	0.00200				
m,p-Xylenes		0.0695	0.00403	0.0465	0.00404	0.0123	0.00399				
o-Xylene		0.0385	0.00202	0.0226	0.00202	0.00624	0.00200				
Total Xylenes		0.108	0.00202	0.0691	0.00202	0.0185	0.00200				
Total BTEX		0.258	0.00202	0.247	0.00202	0.155	0.00200				
Chloride by EPA 300	***Extracted:***	03.03.2021 15:05		03.03.2021 15:05		03.03.2021 15:05					
	Analyzed:	03.04.2021 00:10		03.04.2021 00:17		03.04.2021 00:25					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		11.6	5.00	13.1	5.00	12.2	5.05				
TPH by SW8015 Mod	***Extracted:***	03.02.2021 12:00		03.02.2021 12:00		03.02.2021 12:00					
	Analyzed:	03.03.2021 04:35		03.03.2021 04:57		03.03.2021 05:18					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9				
Diesel Range Organics (DRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9				
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<49.9	49.9				
Total TPH		<50.0	50.0	<50.0	50.0	<49.9	49.9				

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Analytical Report 689823

for

Conoco Phillips-Midland

Project Manager: Ike Tavarez

Warhawk 3 Federal Com 001H (2/8/21)

03.05.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

03.05.2021

Project Manager: **Ike Tavarez**
Conoco Phillips-Midland
3300 North A Street
Midland, TX 79705

Reference: Eurofins Xenco, LLC Report No(s): **689823**
Warhawk 3 Federal Com 001H (2/8/21)
Project Address: Reeves, Texas

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 689823. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 689823 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Sample Cross Reference 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-1 0-1'	S	02.26.2021 00:00		689823-001
T-1 2'	S	02.26.2021 00:00		689823-002
T-1 3'	S	02.26.2021 00:00		689823-003
T-2 0-1'	S	02.26.2021 00:00		689823-004
T-2 2'	S	02.26.2021 00:00		689823-005
T-2 3'	S	02.26.2021 00:00		689823-006
T-3 0-1'	S	02.26.2021 00:00		689823-007
T-3 2'	S	02.26.2021 00:00		689823-008
T-3 3'	S	02.26.2021 00:00		689823-009

eurofins | Environment Testing Xenco

CASE NARRATIVE

Client Name: Conoco Phillips-Midland

Project Name: Warhawk 3 Federal Com 001H (2/8/21)

Project ID:
Work Order Number(s): *689823*

Report Date: *03.05.2021*
Date Received: *03.01.2021*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3152315 BTEX by EPA 8021B

Surrogate 1,4-Difluorobenzene, Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 689823-001.

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-1 0-1'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-001 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.6**	5.03	mg/kg	03.03.2021 22:55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 13:00 % Moisture:

Seq Number: 3152497 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	**1230**	50.0	mg/kg	03.03.2021 04:57		1
Diesel Range Organics (DRO)	C10C28DRO	**2190**	50.0	mg/kg	03.03.2021 04:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**134**	50.0	mg/kg	03.03.2021 04:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**154**	50.0	mg/kg	03.03.2021 04:57		1
Total TPH	PHC635	**5930**	50.0	mg/kg	03.03.2021 04:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-130	03.03.2021 04:57	
o-Terphenyl	84-15-1	116	%	70-130	03.03.2021 04:57	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-1 0-1'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-001	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**3.84**	0.0396	mg/kg	03.02.2021 19:44		20
Toluene	108-88-3	**19.4**	0.396	mg/kg	03.04.2021 03:26	D	200
Ethylbenzene	100-41-4	**4.38**	0.396	mg/kg	03.04.2021 03:26	D	200
m,p-Xylenes	179601-23-1	**4.32**	0.792	mg/kg	03.04.2021 03:26	D	200
o-Xylene	95-47-6	**2.39**	0.396	mg/kg	03.04.2021 03:26	D	200
Total Xylenes	1330-20-7	**6.71**	0.396	mg/kg	03.04.2021 03:26		200
Total BTEX		**34.3**	0.0396	mg/kg	03.04.2021 03:26		200

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	146	%	70-130	03.02.2021 19:44	**
4-Bromofluorobenzene	460-00-4	337	%	70-130	03.02.2021 19:44	**

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-1 2'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-002 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.3**	4.98	mg/kg	03.03.2021 23:03		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.03.2021 02:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.03.2021 02:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.03.2021 02:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.03.2021 02:47	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.03.2021 02:47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	03.03.2021 02:47	
o-Terphenyl	84-15-1	112	%	70-130	03.03.2021 02:47	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-1 2'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-002	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0271**	0.00199	mg/kg	03.02.2021 15:59		1
Toluene	108-88-3	**0.0564**	0.00199	mg/kg	03.02.2021 15:59		1
Ethylbenzene	100-41-4	**0.0249**	0.00199	mg/kg	03.02.2021 15:59		1
m,p-Xylenes	179601-23-1	**0.0279**	0.00398	mg/kg	03.02.2021 15:59		1
o-Xylene	95-47-6	**0.0143**	0.00199	mg/kg	03.02.2021 15:59		1
Total Xylenes	1330-20-7	**0.0422**	0.00199	mg/kg	03.02.2021 15:59		1
Total BTEX		**0.151**	0.00199	mg/kg	03.02.2021 15:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	101	%	70-130	03.02.2021 15:59	
4-Bromofluorobenzene	460-00-4	107	%	70-130	03.02.2021 15:59	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-1 3'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-003 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**9.76**	4.96	mg/kg	03.03.2021 23:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.03.2021 03:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.03.2021 03:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 03:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 03:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.03.2021 03:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	03.03.2021 03:09	
o-Terphenyl	84-15-1	96	%	70-130	03.03.2021 03:09	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-1 3'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-003	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0598**	0.00198	mg/kg	03.02.2021 16:20		1
Toluene	108-88-3	**0.0745**	0.00198	mg/kg	03.02.2021 16:20		1
Ethylbenzene	100-41-4	**0.0113**	0.00198	mg/kg	03.02.2021 16:20		1
m,p-Xylenes	179601-23-1	**0.00750**	0.00397	mg/kg	03.02.2021 16:20		1
o-Xylene	95-47-6	**0.00379**	0.00198	mg/kg	03.02.2021 16:20		1
Total Xylenes	1330-20-7	**0.0113**	0.00198	mg/kg	03.02.2021 16:20		1
Total BTEX		**0.157**	0.00198	mg/kg	03.02.2021 16:20		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	93	%	70-130	03.02.2021 16:20	
4-Bromofluorobenzene	460-00-4	100	%	70-130	03.02.2021 16:20	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-2 0-1'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-004 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**63.4**	5.04	mg/kg	03.03.2021 23:33		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.03.2021 03:30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.03.2021 03:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 03:30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 03:30	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.03.2021 03:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-130	03.03.2021 03:30	
o-Terphenyl	84-15-1	110	%	70-130	03.03.2021 03:30	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-2 0-1'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-004	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0187**	0.00199	mg/kg	03.02.2021 16:40		1
Toluene	108-88-3	**0.0889**	0.00199	mg/kg	03.02.2021 16:40		1
Ethylbenzene	100-41-4	**0.0607**	0.00199	mg/kg	03.02.2021 16:40		1
m,p-Xylenes	179601-23-1	**0.0684**	0.00398	mg/kg	03.02.2021 16:40		1
o-Xylene	95-47-6	**0.0373**	0.00199	mg/kg	03.02.2021 16:40		1
Total Xylenes	1330-20-7	**0.106**	0.00199	mg/kg	03.02.2021 16:40		1
Total BTEX		**0.274**	0.00199	mg/kg	03.02.2021 16:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	90	%	70-130	03.02.2021 16:40	
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.02.2021 16:40	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-2 2'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-005 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**99.6**	5.00	mg/kg	03.03.2021 23:40		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.03.2021 03:52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.03.2021 03:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.03.2021 03:52	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.03.2021 03:52	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.03.2021 03:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	03.03.2021 03:52	
o-Terphenyl	84-15-1	119	%	70-130	03.03.2021 03:52	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-2 2'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-005	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0250**	0.00200	mg/kg	03.02.2021 17:01		1
Toluene	108-88-3	**0.0489**	0.00200	mg/kg	03.02.2021 17:01		1
Ethylbenzene	100-41-4	**0.0141**	0.00200	mg/kg	03.02.2021 17:01		1
m,p-Xylenes	179601-23-1	**0.0148**	0.00401	mg/kg	03.02.2021 17:01		1
o-Xylene	95-47-6	**0.00763**	0.00200	mg/kg	03.02.2021 17:01		1
Total Xylenes	1330-20-7	**0.0224**	0.00200	mg/kg	03.02.2021 17:01		1
Total BTEX		**0.110**	0.00200	mg/kg	03.02.2021 17:01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	03.02.2021 17:01	
4-Bromofluorobenzene	460-00-4	103	%	70-130	03.02.2021 17:01	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-2 3'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-006 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.6**	5.00	mg/kg	03.04.2021 00:02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	03.03.2021 04:14	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	03.03.2021 04:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.03.2021 04:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.03.2021 04:14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.03.2021 04:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	03.03.2021 04:14	
o-Terphenyl	84-15-1	107	%	70-130	03.03.2021 04:14	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-2 3'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-006	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0483**	0.00199	mg/kg	03.02.2021 17:21		1
Toluene	108-88-3	**0.0794**	0.00199	mg/kg	03.02.2021 17:21		1
Ethylbenzene	100-41-4	**0.0158**	0.00199	mg/kg	03.02.2021 17:21		1
m,p-Xylenes	179601-23-1	**0.0109**	0.00398	mg/kg	03.02.2021 17:21		1
o-Xylene	95-47-6	**0.00553**	0.00199	mg/kg	03.02.2021 17:21		1
Total Xylenes	1330-20-7	**0.0164**	0.00199	mg/kg	03.02.2021 17:21		1
Total BTEX		**0.160**	0.00199	mg/kg	03.02.2021 17:21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	98	%	70-130	03.02.2021 17:21	
4-Bromofluorobenzene	460-00-4	103	%	70-130	03.02.2021 17:21	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-3 0-1'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-007 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11.6**	5.00	mg/kg	03.04.2021 00:10		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.03.2021 04:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.03.2021 04:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 04:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 04:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.03.2021 04:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-130	03.03.2021 04:35	
o-Terphenyl	84-15-1	112	%	70-130	03.03.2021 04:35	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-3 0-1'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-007	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0251**	0.00202	mg/kg	03.02.2021 17:41		1
Toluene	108-88-3	**0.0650**	0.00202	mg/kg	03.02.2021 17:41		1
Ethylbenzene	100-41-4	**0.0599**	0.00202	mg/kg	03.02.2021 17:41		1
m,p-Xylenes	179601-23-1	**0.0695**	0.00403	mg/kg	03.02.2021 17:41		1
o-Xylene	95-47-6	**0.0385**	0.00202	mg/kg	03.02.2021 17:41		1
Total Xylenes	1330-20-7	**0.108**	0.00202	mg/kg	03.02.2021 17:41		1
Total BTEX		**0.258**	0.00202	mg/kg	03.02.2021 17:41		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	115	%	70-130	03.02.2021 17:41	
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.02.2021 17:41	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-3 2'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-008 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13.1**	5.00	mg/kg	03.04.2021 00:17		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	03.03.2021 04:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	03.03.2021 04:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 04:57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.03.2021 04:57	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.03.2021 04:57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	03.03.2021 04:57	
o-Terphenyl	84-15-1	110	%	70-130	03.03.2021 04:57	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-3 2'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-008	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0417**	0.00202	mg/kg	03.02.2021 19:04		1
Toluene	108-88-3	**0.0923**	0.00202	mg/kg	03.02.2021 19:04		1
Ethylbenzene	100-41-4	**0.0437**	0.00202	mg/kg	03.02.2021 19:04		1
m,p-Xylenes	179601-23-1	**0.0465**	0.00404	mg/kg	03.02.2021 19:04		1
o-Xylene	95-47-6	**0.0226**	0.00202	mg/kg	03.02.2021 19:04		1
Total Xylenes	1330-20-7	**0.0691**	0.00202	mg/kg	03.02.2021 19:04		1
Total BTEX		**0.247**	0.00202	mg/kg	03.02.2021 19:04		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	104	%	70-130	03.02.2021 19:04	
1,4-Difluorobenzene	540-36-3	101	%	70-130	03.02.2021 19:04	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **T-3 3'** Matrix: Soil Date Received:03.01.2021 16:23

Lab Sample Id: 689823-009 Date Collected: 02.26.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.03.2021 15:05 % Moisture:

Seq Number: 3152466 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**12.2**	5.05	mg/kg	03.04.2021 00:25		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P

Tech: DVM

Analyst: ARM Date Prep: 03.02.2021 12:00 % Moisture:

Seq Number: 3152495 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	03.03.2021 05:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	03.03.2021 05:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.03.2021 05:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.03.2021 05:18	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.03.2021 05:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-130	03.03.2021 05:18	
o-Terphenyl	84-15-1	105	%	70-130	03.03.2021 05:18	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 689823

Conoco Phillips-Midland, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**T-3 3'**	Matrix:	Soil	Date Received:	03.01.2021 16:23
Lab Sample Id:	689823-009	Date Collected:	02.26.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	KTL				
Analyst:	KTL	Date Prep:	03.02.2021 10:30	% Moisture:	
Seq Number:	3152315			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	**0.0477**	0.00200	mg/kg	03.02.2021 19:24		1
Toluene	108-88-3	**0.0719**	0.00200	mg/kg	03.02.2021 19:24		1
Ethylbenzene	100-41-4	**0.0169**	0.00200	mg/kg	03.02.2021 19:24		1
m,p-Xylenes	179601-23-1	**0.0123**	0.00399	mg/kg	03.02.2021 19:24		1
o-Xylene	95-47-6	**0.00624**	0.00200	mg/kg	03.02.2021 19:24		1
Total Xylenes	1330-20-7	**0.0185**	0.00200	mg/kg	03.02.2021 19:24		1
Total BTEX		**0.155**	0.00200	mg/kg	03.02.2021 19:24		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	70-130	03.02.2021 19:24	
1,4-Difluorobenzene	540-36-3	93	%	70-130	03.02.2021 19:24	

eurofins | Environment Testing Xenco

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

eurofins | Environment Testing Xenco

QC Summary 689823

Conoco Phillips-Midland

Warhawk 3 Federal Com 001H (2/8/21)

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3152466 — Matrix: Solid — Date Prep: 03.03.2021
MB Sample Id: 7722437-1-BLK — LCS Sample Id: 7722437-1-BKS — LCSD Sample Id: 7722437-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	259	104	258	103	90-110	0	20	mg/kg	03.03.2021 21:11	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3152466 — Matrix: Soil — Date Prep: 03.03.2021
Parent Sample Id: 689823-003 — MS Sample Id: 689823-003 S — MSD Sample Id: 689823-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	9.76	248	276	107	276	107	90-110	0	20	mg/kg	03.03.2021 23:18	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3152466 — Matrix: Soil — Date Prep: 03.03.2021
Parent Sample Id: 689954-016 — MS Sample Id: 689954-016 S — MSD Sample Id: 689954-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	78.2	248	338	105	338	105	90-110	0	20	mg/kg	03.03.2021 21:34	

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3152495 — Matrix: Solid — Date Prep: 03.02.2021
MB Sample Id: 7722388-1-BLK — LCS Sample Id: 7722388-1-BKS — LCSD Sample Id: 7722388-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1030	103	1100	110	70-130	7	20	mg/kg	03.02.2021 20:45	
Diesel Range Organics (DRO)	<50.0	1000	993	99	1060	106	70-130	7	20	mg/kg	03.02.2021 20:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		106		115		70-130	%	03.02.2021 20:45
o-Terphenyl	105		101		109		70-130	%	03.02.2021 20:45

Analytical Method: TPH by SW8015 Mod — Prep Method: SW8015P
Seq Number: 3152497 — Matrix: Solid — Date Prep: 03.02.2021
MB Sample Id: 7722392-1-BLK — LCS Sample Id: 7722392-1-BKS — LCSD Sample Id: 7722392-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	992	99	1160	116	70-130	16	20	mg/kg	03.02.2021 20:45	
Diesel Range Organics (DRO)	<50.0	1000	1070	107	1060	106	70-130	1	20	mg/kg	03.02.2021 20:45	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	100		107		108		70-130	%	03.02.2021 20:45
o-Terphenyl	114		105		103		70-130	%	03.02.2021 20:45

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

eurofins | Environment Testing Xenco

QC Summary 689823

Conoco Phillips-Midland

Warhawk 3 Federal Com 001H (2/8/21)

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3152495 Matrix: Solid Date Prep: 03.02.2021
MB Sample Id: 7722388-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.02.2021 20:24	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3152497 Matrix: Solid Date Prep: 03.02.2021
MB Sample Id: 7722392-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.02.2021 20:24	

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3152495 Matrix: Soil Date Prep: 03.02.2021
Parent Sample Id: 689852-001 MS Sample Id: 689852-001 S MSD Sample Id: 689852-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	917	92	968	97	70-130	5	20	mg/kg	03.02.2021 21:49	
Diesel Range Organics (DRO)	<49.9	998	868	87	928	93	70-130	7	20	mg/kg	03.02.2021 21:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		105		70-130	%	03.02.2021 21:49
o-Terphenyl	96		101		70-130	%	03.02.2021 21:49

Analytical Method: **TPH by SW8015 Mod** Prep Method: SW8015P
Seq Number: 3152497 Matrix: Soil Date Prep: 03.02.2021
Parent Sample Id: 689939-001 MS Sample Id: 689939-001 S MSD Sample Id: 689939-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1000	100	971	97	70-130	3	20	mg/kg	03.02.2021 21:49	
Diesel Range Organics (DRO)	<49.9	997	899	90	811	81	70-130	10	20	mg/kg	03.02.2021 21:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	90		86		70-130	%	03.02.2021 21:49
o-Terphenyl	83		79		70-130	%	03.02.2021 21:49

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

eurofins | Environment Testing Xenco

QC Summary 689823

Conoco Phillips-Midland

Warhawk 3 Federal Com 001H (2/8/21)

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3152315 Matrix: Solid Date Prep: 03.02.2021

MB Sample Id: 7722315-1-BLK LCS Sample Id: 7722315-1-BKS LCSD Sample Id: 7722315-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0754	75	0.0776	78	70-130	3	35	mg/kg	03.02.2021 11:55	
Toluene	<0.00200	0.100	0.0756	76	0.0781	78	70-130	3	35	mg/kg	03.02.2021 11:55	
Ethylbenzene	<0.00200	0.100	0.0859	86	0.0885	89	70-130	3	35	mg/kg	03.02.2021 11:55	
m,p-Xylenes	<0.00400	0.200	0.172	86	0.181	91	70-130	5	35	mg/kg	03.02.2021 11:55	
o-Xylene	<0.00200	0.100	0.0879	88	0.0917	92	70-130	4	35	mg/kg	03.02.2021 11:55	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		96		97		70-130	%	03.02.2021 11:55
4-Bromofluorobenzene	96		102		102		70-130	%	03.02.2021 11:55

Analytical Method: **BTEX by EPA 8021B** Prep Method: SW5035A

Seq Number: 3152315 Matrix: Soil Date Prep: 03.02.2021

Parent Sample Id: 689702-001 MS Sample Id: 689702-001 S MSD Sample Id: 689702-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0705	71	0.0766	77	70-130	8	35	mg/kg	03.02.2021 12:58	
Toluene	<0.00199	0.0996	0.0702	70	0.0766	77	70-130	9	35	mg/kg	03.02.2021 12:58	
Ethylbenzene	<0.00199	0.0996	0.0805	81	0.0856	86	70-130	6	35	mg/kg	03.02.2021 12:58	
m,p-Xylenes	<0.00398	0.199	0.164	82	0.174	87	70-130	6	35	mg/kg	03.02.2021 12:58	
o-Xylene	<0.00199	0.0996	0.0827	83	0.0882	88	70-130	6	35	mg/kg	03.02.2021 12:58	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		70-130	%	03.02.2021 12:58
4-Bromofluorobenzene	103		101		70-130	%	03.02.2021 12:58

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Analysis Request of Chain of Custody Record

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

68 9823

Client Name:	COG	**Site Manager:**	Ike Tavarez ike.tavarez@conocophillips.com Robert Grubbs Jr robert.d.grubbs@conocophillips.com
Project Name:	Warhawk 3 Federal Com 001H (2/8/21)		
Project Location: (county, state)	Reeves, Texas	**Project #:**	
Invoice to:	COG		
Receiving Laboratory:	Eurofins Xenco	**Sampler Signature:**	Robert Grubbs Jr
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	FILTERED (Y/N)	TPH TX1005 (Ext to C35)	BTEX 8021B	TPH 8015M (GRO - DRO - MRO)	Chloride	Hold
	T-1 0 - 1'	2/26/2021			X			X	1			X	X	X	
	T-1 2'	2/26/2021			X			X	1			X	X	X	
	T-1 3'	2/26/2021			X			X	1			X	X	X	
	T-2 0 - 1'	2/26/2021			X			X	1			X	X	X	
	T-2 2'	2/26/2021			X			X	1			X	X	X	
	T-2 3'	2/26/2021			X			X	1			X	X	X	
	T-3 0 - 1'	2/26/2021			X			X	1			X	X	X	
	T-3 2'	2/26/2021			X			X	1			X	X	X	
	T-3 3'	2/26/2021			X			X	1			X	X	X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Robert Grubbs Jr.	3/1/2021	1622		3/1/21	1623
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature: -4.4

REMARKS:

RUSH: Same Day 24 hr 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Conoco Phillips-Midland

Date/ Time Received: 03.01.2021 04.23.00 PM

Work Order #: 689823

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	-4.4
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brianna Teel Date: 03.02.2021
Brianna Teel

Checklist reviewed by: Jessica Kramer Date: 03.02.2021
Jessica Kramer

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 691851

COG Operating, LLC, Midland, TX

Project Name: Warhawk 3 Federal Com 001H (2/8/21)

Project Id:

Contact: Ike Tavarez

Project Location: Reeves Texas

Date Received in Lab: Mon 03.15.2021 16:29

Report Date: 03.16.2021 18:32

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	691851-001		691851-002		691851-003		691851-004		691851-005		691851-006	
	Field Id:	CS-1 North		CS-1 South		CS-1 East		CS-1 West		CS-1 Bottom Hole - 1.5'		CS-2 North	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.10.2021 00:00		03.10.2021 00:00		03.10.2021 00:00		03.10.2021 00:00		03.10.2021 00:00		03.12.2021 00:00	
BTEX by EPA 8021B	***Extracted:***	03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00	
	Analyzed:	03.15.2021 21:07		03.15.2021 21:48		03.15.2021 22:09		03.15.2021 22:30		03.15.2021 22:50		03.15.2021 23:11	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00403	0.00403	<0.00401	0.00401	<0.00402	0.00402	<0.00401	0.00401
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201	<0.00200	0.00200
Chloride by EPA 300	***Extracted:***	03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45	
	Analyzed:	03.16.2021 11:29		03.16.2021 11:34		03.16.2021 11:40		03.16.2021 11:56		03.16.2021 12:02		03.16.2021 12:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.95	4.95	<5.03	5.03	<4.99	4.99	5.02	4.95	<5.05	5.05	5.50	4.98
TPH By SW8015 Mod	***Extracted:***	03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00	
	Analyzed:	03.15.2021 22:09		03.15.2021 23:12		03.15.2021 23:33		03.15.2021 23:54		03.16.2021 00:14		03.16.2021 00:35	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0
Diesel Range Organics		<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0
Total TPH		<50.0	50.0	<50.0	50.0	<50.0	50.0	<49.9	49.9	<49.8	49.8	<50.0	50.0

BRL - Below Reporting Limit

Jessica Kramer

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 691851

COG Operating, LLC, Midland, TX

Project Name: Warhawk 3 Federal Com 001H (2/8/21)

Project Id:

Contact: Ike Tavarez

Project Location: Reeves Texas

Date Received in Lab: Mon 03.15.2021 16:29

Report Date: 03.16.2021 18:32

Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	691851-007		691851-008		691851-009		691851-010		691851-011		691851-012	
	Field Id:	CS-2 West		CS-2 Bottom Hole 0.5'		CS-3 North		CS-3 South		CS-3 East		CS-3 Bottom Hole 0.5'	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	03.12.2021 00:00		03.12.2021 00:00		03.12.2021 00:00		03.12.2021 00:00		03.12.2021 00:00		03.12.2021 00:00	
BTEX by EPA 8021B	***Extracted:***	03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00	
	Analyzed:	03.15.2021 23:31		03.15.2021 23:52		03.16.2021 00:13		03.16.2021 01:15		03.16.2021 01:35		03.16.2021 01:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Toluene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Ethylbenzene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
m,p-Xylenes		<0.00399	0.00399	<0.00398	0.00398	<0.00404	0.00404	<0.00403	0.00403	<0.00401	0.00401	<0.00402	0.00402
o-Xylene		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Total Xylenes		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Total BTEX		<0.00200	0.00200	<0.00199	0.00199	<0.00202	0.00202	<0.00202	0.00202	<0.00200	0.00200	<0.00201	0.00201
Chloride by EPA 300	***Extracted:***	03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45	
	Analyzed:	03.16.2021 12:13		03.16.2021 12:18		03.16.2021 12:24		03.16.2021 12:41		03.16.2021 12:46		03.16.2021 13:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		5.35	4.95	5.83	5.04	6.11	5.00	6.90	4.96	7.48	5.00	5.64	5.02
TPH By SW8015 Mod	***Extracted:***	03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00	
	Analyzed:	03.16.2021 00:56		03.16.2021 01:17		03.16.2021 01:38		03.16.2021 01:59		03.16.2021 02:41		03.16.2021 03:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0
Diesel Range Organics		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0
Total TPH		<50.0	50.0	<49.9	49.9	<49.9	49.9	<50.0	50.0	<50.0	50.0	<50.0	50.0

BRL - Below Reporting Limit

Jessica Kramer

eurofins | Environment Testing Xenco

Certificate of Analysis Summary 691851

COG Operating, LLC, Midland, TX

Project Name: Warhawk 3 Federal Com 001H (2/8/21)

Project Id:

Contact: Ike Tavarez

Project Location: Reeves Texas

Date Received in Lab: Mon 03.15.2021 16:29

Report Date: 03.16.2021 18:32

Project Manager: Jessica Kramer

Analysis Requested															
	Lab Id:	691851-013		691851-014		691851-015		691851-016							
	Field Id:	CS-4 South		CS-4 East		CS-4 West		CS-4 Bottom Hole 0.5'							
	Depth:														
	Matrix:	SOIL		SOIL		SOIL		SOIL							
	Sampled:	03.12.2021 00:00		03.12.2021 00:00		03.12.2021 00:00		03.12.2021 00:00							
BTEX by EPA 8021B	***Extracted:***	03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00							
	Analyzed:	03.16.2021 02:17		03.16.2021 02:37		03.16.2021 02:58		03.16.2021 03:18							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Benzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199						
Toluene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199						
Ethylbenzene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199						
m,p-Xylenes		<0.00399	0.00399	<0.00401	0.00401	<0.00399	0.00399	<0.00398	0.00398						
o-Xylene		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199						
Total Xylenes		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199						
Total BTEX		<0.00200	0.00200	<0.00200	0.00200	<0.00200	0.00200	<0.00199	0.00199						
Chloride by EPA 300	***Extracted:***	03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45		03.16.2021 10:45							
	Analyzed:	03.16.2021 13:08		03.16.2021 13:14		03.16.2021 13:19		03.16.2021 13:25							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Chloride		5.65	4.99	6.64	5.05	5.11	5.05	6.08	5.05						
TPH By SW8015 Mod	***Extracted:***	03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00		03.15.2021 17:00							
	Analyzed:	03.16.2021 03:22		03.16.2021 03:43		03.16.2021 04:04		03.16.2021 04:25							
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL						
Gasoline Range Hydrocarbons		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9						
Diesel Range Organics		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9						
Motor Oil Range Hydrocarbons (MRO)		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9						
Total TPH		<49.9	49.9	<49.8	49.8	<50.0	50.0	<49.9	49.9						
TPH By SW8015 Mod	***Extracted:***			03.15.2021 17:00											
	Analyzed:			03.16.2021 03:43											
	Units/RL:			mg/kg	RL										
Motor Oil Range Hydrocarbons (MRO)				<49.8	49.8										

BRL - Below Reporting Limit

Jessica Kramer

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Analytical Report 691851

for

COG Operating, LLC

Project Manager: Ike Tavarez

Warhawk 3 Federal Com 001H (2/8/21)

03.16.2021

Collected By: Client

1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-24)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-20-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)

eurofins | Environment Testing Xenco

03.16.2021

Project Manager: **Ike Tavarez**
COG Operating, LLC
600 W Illinois
Midland, TX 79701

Reference: Eurofins Xenco, LLC Report No(s): **691851**
Warhawk 3 Federal Com 001H (2/8/21)
Project Address: Reeves Texas

Ike Tavarez:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 691851. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 691851 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Manager

A Small Business and Minority Company

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

eurofins | Environment Testing Xenco

Sample Cross Reference 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-1 North	S	03.10.2021 00:00		691851-001
CS-1 South	S	03.10.2021 00:00		691851-002
CS-1 East	S	03.10.2021 00:00		691851-003
CS-1 West	S	03.10.2021 00:00		691851-004
CS-1 Bottom Hole - 1.5'	S	03.10.2021 00:00		691851-005
CS-2 North	S	03.12.2021 00:00		691851-006
CS-2 West	S	03.12.2021 00:00		691851-007
CS-2 Bottom Hole 0.5'	S	03.12.2021 00:00		691851-008
CS-3 North	S	03.12.2021 00:00		691851-009
CS-3 South	S	03.12.2021 00:00		691851-010
CS-3 East	S	03.12.2021 00:00		691851-011
CS-3 Bottom Hole 0.5'	S	03.12.2021 00:00		691851-012
CS-4 South	S	03.12.2021 00:00		691851-013
CS-4 East	S	03.12.2021 00:00		691851-014
CS-4 West	S	03.12.2021 00:00		691851-015
CS-4 Bottom Hole 0.5'	S	03.12.2021 00:00		691851-016

eurofins | Environment Testing Xenco

CASE NARRATIVE

Client Name: COG Operating, LLC

Project Name: Warhawk 3 Federal Com 001H (2/8/21)

Project ID:
Work Order Number(s): *691851*

Report Date: *03.16.2021*
Date Received: *03.15.2021*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-1 North** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-001 Date Collected: 03.10.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	03.16.2021 11:29	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.15.2021 22:09	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.15.2021 22:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.15.2021 22:09	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.15.2021 22:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	03.15.2021 22:09	
o-Terphenyl	84-15-1	81	%	70-130	03.15.2021 22:09	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-1 North**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-001	Date Collected:	03.10.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2021 21:07	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2021 21:07	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.2021 21:07	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.15.2021 21:07	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.15.2021 21:07	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.15.2021 21:07	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.15.2021 21:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	03.15.2021 21:07	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.15.2021 21:07	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-1 South** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-002 Date Collected: 03.10.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.03	5.03	mg/kg	03.16.2021 11:34	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.15.2021 23:12	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.15.2021 23:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.15.2021 23:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.15.2021 23:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	03.15.2021 23:12	
o-Terphenyl	84-15-1	80	%	70-130	03.15.2021 23:12	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-1 South**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-002	Date Collected:	03.10.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2021 21:48	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2021 21:48	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.2021 21:48	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.15.2021 21:48	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.15.2021 21:48	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.15.2021 21:48	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.15.2021 21:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112	%	70-130	03.15.2021 21:48	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.15.2021 21:48	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-1 East** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-003 Date Collected: 03.10.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	03.16.2021 11:40	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.15.2021 23:33	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.15.2021 23:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.15.2021 23:33	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.15.2021 23:33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	03.15.2021 23:33	
o-Terphenyl	84-15-1	78	%	70-130	03.15.2021 23:33	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-1 East**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-003	Date Collected:	03.10.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.15.2021 22:09	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.15.2021 22:09	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.15.2021 22:09	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.15.2021 22:09	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.15.2021 22:09	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.15.2021 22:09	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.15.2021 22:09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.15.2021 22:09	
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.15.2021 22:09	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-1 West** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-004 Date Collected: 03.10.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.02**	4.95	mg/kg	03.16.2021 11:56		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	03.15.2021 23:54	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	03.15.2021 23:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.15.2021 23:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.15.2021 23:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	03.15.2021 23:54	
o-Terphenyl	84-15-1	79	%	70-130	03.15.2021 23:54	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-1 West**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-004	Date Collected:	03.10.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2021 22:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2021 22:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.2021 22:30	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.15.2021 22:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.15.2021 22:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.15.2021 22:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.15.2021 22:30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	03.15.2021 22:30	
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.15.2021 22:30	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-1 Bottom Hole - 1.5'** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-005 Date Collected: 03.10.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.05	5.05	mg/kg	03.16.2021 12:02	U	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	03.16.2021 00:14	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	03.16.2021 00:14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.16.2021 00:14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.16.2021 00:14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	03.16.2021 00:14	
o-Terphenyl	84-15-1	81	%	70-130	03.16.2021 00:14	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-1 Bottom Hole - 1.5'**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-005	Date Collected:	03.10.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.15.2021 22:50	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.15.2021 22:50	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.15.2021 22:50	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.15.2021 22:50	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.15.2021 22:50	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.15.2021 22:50	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.15.2021 22:50	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	102	%	70-130	03.15.2021 22:50	
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.15.2021 22:50	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-2 North** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-006 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.50**	4.98	mg/kg	03.16.2021 12:07		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.16.2021 00:35	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.16.2021 00:35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.16.2021 00:35	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.16.2021 00:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	03.16.2021 00:35	
o-Terphenyl	84-15-1	83	%	70-130	03.16.2021 00:35	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-2 North**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-006	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2021 23:11	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2021 23:11	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.2021 23:11	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.15.2021 23:11	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.15.2021 23:11	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.15.2021 23:11	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.15.2021 23:11	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	03.15.2021 23:11	
4-Bromofluorobenzene	460-00-4	126	%	70-130	03.15.2021 23:11	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-2 West** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-007 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.35**	4.95	mg/kg	03.16.2021 12:13		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.16.2021 00:56	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.16.2021 00:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.16.2021 00:56	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.16.2021 00:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	03.16.2021 00:56	
o-Terphenyl	84-15-1	80	%	70-130	03.16.2021 00:56	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-2 West**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-007	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.15.2021 23:31	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.15.2021 23:31	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.15.2021 23:31	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.15.2021 23:31	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.15.2021 23:31	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.15.2021 23:31	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.15.2021 23:31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	97	%	70-130	03.15.2021 23:31	
4-Bromofluorobenzene	460-00-4	101	%	70-130	03.15.2021 23:31	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-2 Bottom Hole 0.5'** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-008 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.83**	5.04	mg/kg	03.16.2021 12:18		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	03.16.2021 01:17	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	03.16.2021 01:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.16.2021 01:17	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.16.2021 01:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-130	03.16.2021 01:17	
o-Terphenyl	84-15-1	94	%	70-130	03.16.2021 01:17	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-2 Bottom Hole 0.5'**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-008	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.15.2021 23:52	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.15.2021 23:52	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.15.2021 23:52	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.15.2021 23:52	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.15.2021 23:52	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.15.2021 23:52	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.15.2021 23:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.15.2021 23:52	
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.15.2021 23:52	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-3 North** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-009 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.11**	5.00	mg/kg	03.16.2021 12:24		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	03.16.2021 01:38	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	03.16.2021 01:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.16.2021 01:38	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.16.2021 01:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	03.16.2021 01:38	
o-Terphenyl	84-15-1	79	%	70-130	03.16.2021 01:38	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-3 North**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-009	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.16.2021 00:13	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.16.2021 00:13	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.16.2021 00:13	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	03.16.2021 00:13	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.16.2021 00:13	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.16.2021 00:13	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.16.2021 00:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	03.16.2021 00:13	
1,4-Difluorobenzene	540-36-3	100	%	70-130	03.16.2021 00:13	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-3 South** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-010 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.90**	4.96	mg/kg	03.16.2021 12:41		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.16.2021 01:59	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.16.2021 01:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.16.2021 01:59	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.16.2021 01:59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	74	%	70-130	03.16.2021 01:59	
o-Terphenyl	84-15-1	77	%	70-130	03.16.2021 01:59	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-3 South**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-010	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	03.16.2021 01:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	03.16.2021 01:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	03.16.2021 01:15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	03.16.2021 01:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	03.16.2021 01:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	03.16.2021 01:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	03.16.2021 01:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.16.2021 01:15	
4-Bromofluorobenzene	460-00-4	102	%	70-130	03.16.2021 01:15	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-3 East** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-011 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7.48**	5.00	mg/kg	03.16.2021 12:46		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.16.2021 02:41	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.16.2021 02:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.16.2021 02:41	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.16.2021 02:41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	03.16.2021 02:41	
o-Terphenyl	84-15-1	79	%	70-130	03.16.2021 02:41	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-3 East**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-011	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.16.2021 01:35	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.16.2021 01:35	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.16.2021 01:35	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.16.2021 01:35	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.16.2021 01:35	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.16.2021 01:35	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.16.2021 01:35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	03.16.2021 01:35	
1,4-Difluorobenzene	540-36-3	99	%	70-130	03.16.2021 01:35	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-3 Bottom Hole 0.5'** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-012 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.64**	5.02	mg/kg	03.16.2021 13:03		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.16.2021 03:02	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.16.2021 03:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.16.2021 03:02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.16.2021 03:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	03.16.2021 03:02	
o-Terphenyl	84-15-1	79	%	70-130	03.16.2021 03:02	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-3 Bottom Hole 0.5'**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-012	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.16.2021 01:56	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.16.2021 01:56	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.16.2021 01:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.16.2021 01:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.16.2021 01:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.16.2021 01:56	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.16.2021 01:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	109	%	70-130	03.16.2021 01:56	
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.16.2021 01:56	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-4 South** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-013 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.65**	4.99	mg/kg	03.16.2021 13:08		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	03.16.2021 03:22	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	03.16.2021 03:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.16.2021 03:22	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.16.2021 03:22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-130	03.16.2021 03:22	
o-Terphenyl	84-15-1	85	%	70-130	03.16.2021 03:22	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-4 South**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-013	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.16.2021 02:17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.16.2021 02:17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.16.2021 02:17	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.16.2021 02:17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.16.2021 02:17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.16.2021 02:17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.16.2021 02:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	03.16.2021 02:17	
1,4-Difluorobenzene	540-36-3	103	%	70-130	03.16.2021 02:17	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-4 East** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-014 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.64**	5.05	mg/kg	03.16.2021 13:14		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	03.16.2021 03:43	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	03.16.2021 03:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	03.16.2021 03:43	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	03.16.2021 03:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	03.16.2021 03:43	
o-Terphenyl	84-15-1	82	%	70-130	03.16.2021 03:43	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-4 East**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-014	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.16.2021 02:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.16.2021 02:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.16.2021 02:37	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.16.2021 02:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.16.2021 02:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.16.2021 02:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.16.2021 02:37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121	%	70-130	03.16.2021 02:37	
1,4-Difluorobenzene	540-36-3	121	%	70-130	03.16.2021 02:37	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-4 West** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-015 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5.11**	5.05	mg/kg	03.16.2021 13:19		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	03.16.2021 04:04	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	03.16.2021 04:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	03.16.2021 04:04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	03.16.2021 04:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	03.16.2021 04:04	
o-Terphenyl	84-15-1	79	%	70-130	03.16.2021 04:04	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-4 West**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-015	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.16.2021 02:58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.16.2021 02:58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.16.2021 02:58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.16.2021 02:58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.16.2021 02:58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.16.2021 02:58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.16.2021 02:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.16.2021 02:58	
1,4-Difluorobenzene	540-36-3	96	%	70-130	03.16.2021 02:58	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id: **CS-4 Bottom Hole 0.5'** Matrix: Soil Date Received:03.15.2021 16:29

Lab Sample Id: 691851-016 Date Collected: 03.12.2021 00:00

Analytical Method: Chloride by EPA 300 Prep Method: E300P

Tech: CHE

Analyst: CHE Date Prep: 03.16.2021 10:45 % Moisture:

Seq Number: 3153836 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6.08**	5.05	mg/kg	03.16.2021 13:25		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P

Tech: ALJ

Analyst: ARM Date Prep: 03.15.2021 17:00 % Moisture:

Seq Number: 3153795 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	03.16.2021 04:25	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	03.16.2021 04:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	03.16.2021 04:25	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	03.16.2021 04:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-130	03.16.2021 04:25	
o-Terphenyl	84-15-1	87	%	70-130	03.16.2021 04:25	

eurofins | Environment Testing Xenco

Certificate of Analytical Results 691851

COG Operating, LLC, Midland, TX

Warhawk 3 Federal Com 001H (2/8/21)

Sample Id:	**CS-4 Bottom Hole 0.5'**	Matrix:	Soil	Date Received:	03.15.2021 16:29
Lab Sample Id:	691851-016	Date Collected:	03.12.2021 00:00		
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5035A
Tech:	MNR				
Analyst:	MNR	Date Prep:	03.15.2021 17:00	% Moisture:	
Seq Number:	3153751			Basis:	Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.16.2021 03:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.16.2021 03:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.16.2021 03:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.16.2021 03:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.16.2021 03:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.16.2021 03:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.16.2021 03:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	91	%	70-130	03.16.2021 03:18	
4-Bromofluorobenzene	460-00-4	106	%	70-130	03.16.2021 03:18	

eurofins | Environment Testing Xenco

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

eurofins | Environment Testing Xenco

QC Summary 691851

COG Operating, LLC

Warhawk 3 Federal Com 001H (2/8/21)

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3153836 — Matrix: Solid — Date Prep: 03.16.2021
MB Sample Id: 7723415-1-BLK — LCS Sample Id: 7723415-1-BKS — LCSD Sample Id: 7723415-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	243	97	244	98	90-110	0	20	mg/kg	03.16.2021 10:56	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3153836 — Matrix: Soil — Date Prep: 03.16.2021
Parent Sample Id: 691748-006 — MS Sample Id: 691748-006 S — MSD Sample Id: 691748-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	45.2	251	310	105	305	104	90-110	2	20	mg/kg	03.16.2021 11:12	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3153836 — Matrix: Soil — Date Prep: 03.16.2021
Parent Sample Id: 691851-009 — MS Sample Id: 691851-009 S — MSD Sample Id: 691851-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.11	250	273	107	271	106	90-110	1	20	mg/kg	03.16.2021 12:29	

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3153795 — Matrix: Solid — Date Prep: 03.15.2021
MB Sample Id: 7723406-1-BLK — LCS Sample Id: 7723406-1-BKS — LCSD Sample Id: 7723406-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	1030	103	1110	111	70-130	7	20	mg/kg	03.15.2021 21:28	
Diesel Range Organics	<50.0	1000	1080	108	1090	109	70-130	1	20	mg/kg	03.15.2021 21:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		107		115		70-130	%	03.15.2021 21:28
o-Terphenyl	93		103		112		70-130	%	03.15.2021 21:28

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3153795 — Matrix: Solid — Date Prep: 03.15.2021
MB Sample Id: 7723406-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	03.15.2021 21:07	

MS/MSD Percent Recovery [D] = 100*(C-A) / B
Relative Percent Difference RPD = 200* | (C-E) / (C+E) |
LCS/LCSD Recovery [D] = 100 * (C) / [B]
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

eurofins | Environment Testing Xenco

QC Summary 691851

COG Operating, LLC

Warhawk 3 Federal Com 001H (2/8/21)

Analytical Method: TPH By SW8015 Mod — Prep Method: SW8015P
Seq Number: 3153795 — Matrix: Soil — Date Prep: 03.15.2021
Parent Sample Id: 691851-001 — MS Sample Id: 691851-001 S — MSD Sample Id: 691851-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	999	930	93	840	84	70-130	10	20	mg/kg	03.15.2021 22:30	
Diesel Range Organics	<50.0	999	893	89	896	90	70-130	0	20	mg/kg	03.15.2021 22:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	92		84		70-130	%	03.15.2021 22:30
o-Terphenyl	85		77		70-130	%	03.15.2021 22:30

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3153751 — Matrix: Solid — Date Prep: 03.15.2021
MB Sample Id: 7723395-1-BLK — LCS Sample Id: 7723395-1-BKS — LCSD Sample Id: 7723395-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.111	111	0.108	108	70-130	3	35	mg/kg	03.15.2021 19:04	
Toluene	<0.00200	0.100	0.101	101	0.100	100	70-130	1	35	mg/kg	03.15.2021 19:04	
Ethylbenzene	<0.00200	0.100	0.0995	100	0.0979	98	70-130	2	35	mg/kg	03.15.2021 19:04	
m,p-Xylenes	<0.00400	0.200	0.194	97	0.194	97	70-130	0	35	mg/kg	03.15.2021 19:04	
o-Xylene	<0.00200	0.100	0.0948	95	0.0957	96	70-130	1	35	mg/kg	03.15.2021 19:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	89		102		109		70-130	%	03.15.2021 19:04
4-Bromofluorobenzene	115		95		99		70-130	%	03.15.2021 19:04

Analytical Method: BTEX by EPA 8021B — Prep Method: SW5035A
Seq Number: 3153751 — Matrix: Soil — Date Prep: 03.15.2021
Parent Sample Id: 691851-001 — MS Sample Id: 691851-001 S — MSD Sample Id: 691851-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0925	93	0.0820	82	70-130	12	35	mg/kg	03.15.2021 19:45	
Toluene	<0.00199	0.0996	0.0886	89	0.0875	88	70-130	1	35	mg/kg	03.15.2021 19:45	
Ethylbenzene	<0.00199	0.0996	0.0823	83	0.0856	86	70-130	4	35	mg/kg	03.15.2021 19:45	
m,p-Xylenes	<0.00398	0.199	0.170	85	0.171	86	70-130	1	35	mg/kg	03.15.2021 19:45	
o-Xylene	<0.00199	0.0996	0.0822	83	0.0825	83	70-130	0	35	mg/kg	03.15.2021 19:45	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		97		70-130	%	03.15.2021 19:45
4-Bromofluorobenzene	98		101		70-130	%	03.15.2021 19:45

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

691851

Client Name:	COG	**Site Manager:**	Ike Tavarez ike.tavarez@conocophillips.com Robert Grubbs Jr robert.d.grubbs@conocophillips.com
Project Name:	Warhawk 3 Federal Com 001H (2/8/21)		
Project Location: (county, state)	Reeves, Texas	**Project #:**	
Invoice to:	COG		
Receiving Laboratory:	Eurofins Xenco	**Sampler Signature:**	Robert Grubbs Jr
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	TPH TX1005 (Ext to C35)	BTEX 8021B	TPH 8015M (GRO - DRO - MRO)	Chloride	Hold
	CS-1 North	3/10/2021			X				X		1			X	X	X	
	CS-1 South	3/10/2021			X				X		1			X	X	X	
	CS-1 East	3/10/2021			X				X		1			X	X	X	
	CS-1 West	3/10/2021			X				X		1			X	X	X	
	CS-1 Bottom Hole - 1.5'	3/10/2021			X				X		1			X	X	X	
	CS-2 North	3/12/2021			X				X		1			X	X	X	
	CS-2 West	3/12/2021			X				X		1			X	X	X	
	CS-2 Bottom Hole 0.5'	3/12/2021			X				X		1			X	X	X	
	CS-3 North	3/12/2021			X				X		1			X	X	X	
	CS-3 South	3/12/2021			X				X		1			X	X	X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Robert Grubbs Jr.	3/15/2021	1628	Paula Rivera	3/15/21	16:29

LAB USE ONLY

Sample Temperature: 4.1

REMARKS:

X — RUSH: Same Day **24 hr** 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

CONCHO

One Concho Center/600/Illinois Avenue/Midland, Texas
Tel (432) 683-7443

691851

Client Name:	COG	**Site Manager:**	Ike Tavarez ike.tavarez@conocophillips.com Robert Grubbs Jr robert.d.grubbs@conocophillips.com
Project Name:	Warhawk 3 Federal Com 001H (2/8/21)		
Project Location: (county, state)	Reeves, Texas	**Project #:**	
Invoice to:	COG		
Receiving Laboratory:	Eurofins Xenco	**Sampler Signature:**	Robert Grubbs Jr
Comments:			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	# CONTAINERS	FILTERED (Y/N)	TPH TX1005 (Ext to C35)	BTEX 8021B	TPH 8015M (GRO - DRO - MRO)	Chloride	Hold
	CS-3 East	3/12/2021			X			X	1			X	X	X	
	CS-3 Bottom Hole 0.5'	3/12/2021			X			X	1			X	X	X	
	CS-4 South	3/12/2021			X			X	1			X	X	X	
	CS-4 East	3/12/2021			X			X	1			X	X	X	
	CS-4 West	3/12/2021			X			X	1			X	X	X	
	CS-4 Bottom Hole 0.5'	3/12/2021			X			X	1			X	X	X	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Robert Grubbs Jr.	3/15/2021	1628	[signature]	3/15/21	16:29
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

LAB USE ONLY

Sample Temperature: 4.1

REMARKS:

X — RUSH: Same Day **24 hr** 48 hr 72 hr

Rush Charges Authorized

Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

ORIGINAL COPY

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating, LLC

Date/ Time Received: 03.15.2021 04.29.00 PM

Work Order #: 691851

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.1	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**No**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	No sampling time on COC nor Sample containers
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: mPaula Guerra
Maria Paula Guerra
Date: 03.15.2021

Checklist reviewed by: Jessica Kramer
Jessica Kramer
Date: 03.16.2021

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2105550009
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: _____ Title: _____

Signature: Robert Hamlet Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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: Robert Hamlet Date: _____

Printed Name: _____ Title: _____

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 35956

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 35956
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2105550009 WARHAWK 3 FEDERAL COM 001H, thank you. This closure is approved.	8/27/2021