Form C-141
Page 5

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2116941247
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: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 07/14/2023

Email: Chase_Settle@eogresources.com Telephone: 575-748-4111

OCD Only

Received by: Shelly Wells Date: 7/14/2023

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

Signature: _____ Date: _____

2135 S. Loop 250 W.
Midland, Texas 79703
United States
www.ghd.com

Our ref: 11230052-LTR-2

July 13, 2023

New Mexico Oil Conservation Division
District 2
811 South First Street
Artesia, New Mexico 88210

Updated Site Remediation Work Plan
Rodke AOY #1 Release Site
EOG Resources Inc.
Incident ID: nAPP2116941247
A-21-19S-25E, Eddy County, New Mexico

To Whom It May Concern:

1. Introduction

GHD Services Inc. (GHD), on behalf of EOG Resources (EOG), submits this Updated Site Remediation Work Plan to the New Mexico Oil Conservation Division (NMOCD) District 2 Office. This Report provides documentation of remedial activities, sampling, and analyses in the affected area at the EOG Rodke AOY #1 Release Site (Site). The Site is located in Eddy County, New Mexico. The GPS coordinates for the release Site are 32.648371 N latitude and 104.488160 W longitude. The release occurred on private land owned by Ross Ranch. Figure 1 depicts the Site location. The EOG production facility and other site details are depicted on Figure 2, Site Details Map.

2. Background Information

A C-141 initial report for this release was submitted to the NMOCD on June 18, 2021. The C-141 stated that no known volume or date could be assigned to this historical release. The potential release area was discovered during EOG well plugging and site abandonment activities associated with this location. Soils within the former tank battery containment appeared to be discoloured and after discussions between field personnel and environmental staff, EOG made the decision to go ahead and file a C-141 for this suspect release location.

The release falls under the jurisdiction of the NMOCD District 2 Office in Artesia, New Mexico. The NMOCD assigned the release with Incident Number NAPP2116941247. The Release Notification, Site Assessment/ Characterization and Remediation Plan portions of Form C-141 are attached to the front of this report. GHD characterized the Site according to Table 1, Closure Criteria for Soils Impacted by a Release, from New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Section 12 (NMAC 19.15.29.12).

3. Excavation Summary

In April, May, and June 2022 GHD, on behalf of EOG, completed excavation and sampling activities at the Site. During the excavation activities composite excavation samples from the sidewalls and bottom of the excavation were collected and analyzed for BTEX by EPA Method 8021B, TPH by EPA Method 8015B Modified, and chloride by EPA Method 300. BTEX and TPH exceedances were noted in bottom hole confirmation samples BH-20 and BH-21 at 20 to 22 feet below ground surface (bgs). At the completion of confirmation sampling and based on results the excavation was backfilled with non-impacted soil prior to the setting of treatment wells to begin bioremediation of the hydrocarbon impacts.

Analytical results are provided in Table 1. Further details regarding all completed excavation activities will be captured in a final closure report.

4. Treatment Summary

As approved by NMOCD on March 18, 2022, drilling oversight and installation of treatment wells was conducted on August 24-25, 2022. A total of two soil treatment wells (IW-1 and IW-2) were installed within the affected area to assist with the bioremediation and venting of the hydrocarbon impacts below 20 feet bgs.

One treatment well was installed for every 100 square feet of impacted area to be remediated. The wells consisted of 2-inch pvc pipe with slotted well screen installed for the last 5-10 feet of the well, well depth was staggered to ensure that the microbial product used to increase bioremediation made contact with all areas that required treatment. The product utilized for treatment was Rigby Taylor (RT) Remediact, which is a concentrated solution of bacteria and microorganisms used to bioremediate hydrocarbons in soils. The RT Remediact was absorbed into the surrounding soils, allowing for the digestion of organics and the breakdown of the hydrocarbons. The RT Remediact was injected into the wells every 2 weeks for approximately 12 weeks, totaling 6 separate treatments. Each well was injected with 86 gallons of solution (microbial product and water) for each event. A total of approximately 1,032 gallons of solution (102 gallons of microbial product and 930 gallons of water) was injected for the entire treatment period. The first treatment was completed the week of August 22, 2022 and the final treatment was completed the week of October 24, 2022.

As outlined in the Updated Site Remediation Work Plan submitted on November 14, 2022, the RT Remediact microbial strain was continued and injected into the wells every 3 weeks for approximately 18 weeks, totaling six separate treatments. A total of 1,032 gallons of solution (102 gallons of microbial product and 930 gallons of water) was injected for the entire treatment period. The first treatment was completed the week of December 12, 2022 and the final treatment was completed the week of March 27, 2023.

5. Confirmation Soil Sampling Summary and Findings

Following the first round of treatment activities, GHD and HCI Drilling advanced one soil boring (CB-1) on November 8, 2022, for the purpose of collecting confirmation soil samples within the treatment area. Samples were collected at 5-foot increments beginning at 35 feet bgs to a depth of 50 feet bgs. All soil samples were analyzed for BTEX by EPA Method 8021B, TPH by EPA Method 8015B Modified, and chloride by EPA Method 300 by Cardinal Laboratories in Hobbs, New Mexico.

Samples at 45 and 50 feet bgs in the soil boring CB-1 exceeded applicable NMAC Table 1 Closure Criteria for groundwater greater than 100 feet. Figure 2, Site Details Map, depicts the location of the confirmation boring sample.

Following the second round of treatment activities, GHD and HCI Drilling advanced one soil boring (CB-1A) on April 20, 2023, for the purpose of collecting confirmation soil samples within the treatment area. Samples were collected at 5-foot increments beginning at 35 feet bgs to a depth of 50 feet bgs. All soil samples were analyzed for BTEX by EPA Method 8021B, TPH by EPA Method 8015B Modified, and chloride by EPA Method 300 by Envirotech Inc in Farmington, New Mexico.

Samples at 45 and 50 feet bgs in the soil boring CB-1A exceeded applicable NMAC Table 1 Closure Criteria for groundwater greater than 100 feet. Figure 2, Site Details Map, depicts the location of the confirmation boring samples. The CB-1 and CB-1A soil boring logs are provided as Attachment A. Analytical results are provided in Table 1, on Figure 3, and in the Laboratory Analytical Reports provided in Attachment B.

6. nAPP2116941247 Proposed Work Plan

CB-1A exhibited TPH GRO and DRO above Table 1 closure criteria to a depth of 45 feet bgs and exhibited BTEX and TPH GRO and DRO above Table 1 closure criteria to a depth of 50 feet bgs. None of the other samples submitted for analysis exhibited exceedances above Table 1 closure criteria. Based on results from the confirmation soil borings further treatment injections are required to adequately breakdown the hydrocarbon within the impacted soils. Continued injections are proposed to the speed of bioremediation.

A liquid microbial strain will be injected into the wells every 2 weeks for approximately 20 weeks, totaling 10 separate treatments. The amount of treatment solution remains similar to the prior injection events. Approximately 20 days after the last treatment, a core rig will be brought in to perform sampling of the treated areas. This will consist of performing one sample boring per 200 square feet, with samples collected at 5-foot increments with anticipated sampling to begin at 35 feet bgs to a depth of 50 feet bgs.

Once confirmation samples collected from the soil boring(s) post treatment are below Table 1 closure criteria, treatment wells will be plugged with non-impacted soil material and cut/capped at a depth of 3 feet bgs, or completely removed with the bore hole backfilled with non-impacted soil material. A closure report will be prepared to document remediation activities and submitted to the NMOCD. If the samples exhibit Total TPH concentrations above Table 1 closure criteria an update will be provided to NMOCD with the progress to date with the additional remediation steps that will occur for the site.

Regards,

GHD

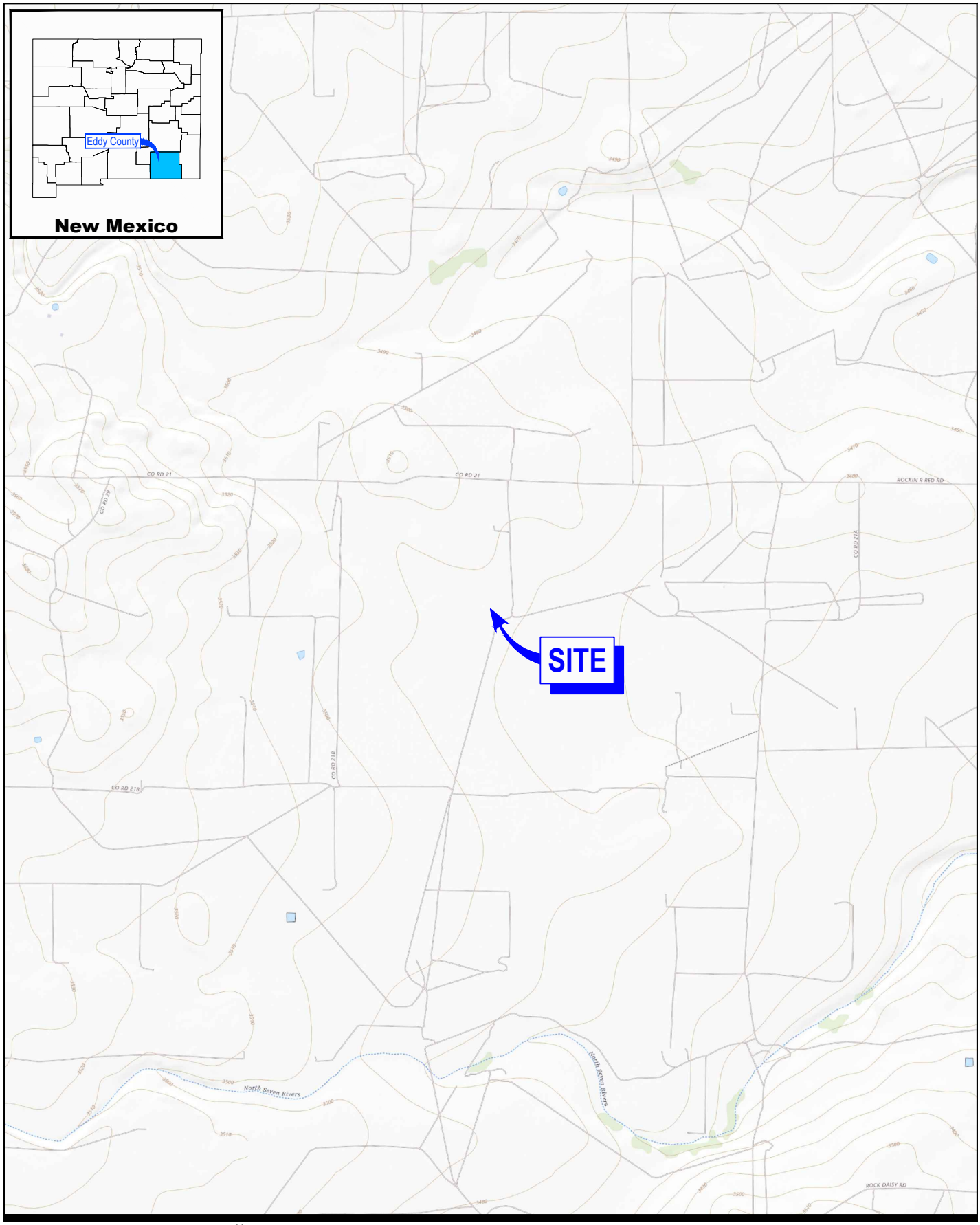
J.T. Murrey
Project Director

Moshghan Mansoori
Senior Project Manager

JTM/MM/mk/LTR-2

Encl. Figure 1 – Site Location Map
Figure 2 – Site Details Map
Figure 3 – Confirmation Soil Analytical
Table 1 – Summary of Soil Analytical Data
Attachment A – Soil Boring Logs
Attachment B – Laboratory Analytical Reports and Chain-of-Custody Documentation

cc: Chase Settle



0 1000 2000 ft

N

Coordinate System:
NAD 1983 StatePlane-
New Mexico East (US Feet)

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
RODKE AOY #1

Project No. **11230052**
Date **May 2023**

SITE LOCATION MAP

FIGURE 1

Filename: N:\US\Midland\Projects\562\11230052\Digital_Design\ACAD\Figures\PRE001\11230052-GHD-00-00-PRE-EN-D101_DL-001.dwg

Data Source: USGS 7.5 Minute Quad "Dayton, Seven Rivers, Foster Ranch, and Parish Ranch, New Mexico"
Lat/Long: 32.6481° North, 104.4880° West

LEGEND

- CONFIRMATION SOIL BORING LOCATION
- INJECTION WELL LOCATION

0 20 40 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
RODKE AOY #1

SITE DETAILS MAP

Project No. **11230052**
Date **May 2023**

FIGURE 2

Filename: N:\US\Midland\Projects\562\11230052\Digital_Design\ACAD\Figures\PRE001\11230052-GHD-00-00-PRE-EN-D101_DL-001.dwg
Plot Date: 26 May 2023 2:21 PM

Data Source: Image © 2021 Google - Imagery Date: December 21, 2019
Lat/Long: 32.6481° North, 104.4880° West

Sample ID	Sample Date	Depth (ft bgs)	Benzene	BTEX	Total Petroleum Hydrocarbons (TPH)	Chloride
					Total GRO/DRO/MRO	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Table I Closure Criteria for Soils between 51 and 100 feet Depth to Groundwater 19.15.29 NMAC			
			10 mg/kg	50 mg/kg	2,500 mg/kg	10,000 mg/kg
Confirmation Boring Samples						
CB-1	11/8/2022	35'	0.305	3.33	216	480
CB-1	11/8/2022	40'	0.678	21.1	232	624
CB-1	11/8/2022	45'	2.05	84.8	2,450	640
CB-1	11/8/2022	50'	1.46	48.1	1,400	896
CB-1A	4/20/2023	35'	<0.025	<0.025	44.6	2260
CB-1A	4/20/2023	40'	<0.025	<0.025	<50	510
CB-1A	4/20/2023	45'	0.258	34.37	3,600	457
CB-1A	4/20/2023	50'	1.39	50.19	4,062	267

LEGEND

- SOIL BORING
- SOIL BORING TO GROUNDWATER
- DEPTH OF SAMPLE (FT)
- BENZENE, TOLUENE, ETHYLBENZENE & XYLENES CONCENTRATION (MG/KG)
- TOTAL PETROLEUM HYDROCARBONS CONCENTRATION (MG/KG)

NOTES:

1. RESULTS IN MILLIGRAMS PER KILOGRAM (MG/KG).
2. SEE TABLE 1 FOR FULL ANALYTICAL RESULTS/DETAILS.
3. YELLOW SHADED CELLS INDICATE EXCEEDANCE.

0 20 40 ft

Coordinate System:
NAD 1983 (2011) StatePlane-
New Mexico East (US Feet)

N

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
RODKE AOY #1

CONFIRMATION SOIL ANALYTICAL

Project No. **11230052**
Date **June 2023**

FIGURE 3

Filename: N:\US\Midland\Projects\562\11230052\Digital_Design\ACAD\Figures\PRE001\11230052-GHD-00-00-PRE-EN-D101_DL-001.dwg
Plot Date: 06 June 2023 5:38 PM

Data Source: Image © 2021 Google - Imagery Date: December 21, 2019
Lat/Long: 32.6481° North, 104.4880° West

Table 1
Summary of Soil Analytical Data
Rodke AOY 1
EOG Resources
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Total Petroleum Hydrocarbons (TPH)				Chloride
								GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Table I Closure Criteria for Soils between 51 and 100 feet Depth to Groundwater 19.15.29 NMAC									
			10 mg/kg	---	---	---	50 mg/kg	1,000 mg/kg		---	2,500 mg/kg	10,000 mg/kg
Initial Assessment Samples												
TP1-8	7/19/2021	8	**300**	**640**	**260**	**250**	**1,450**	**6,700**	**9,300**	**3,600**	**19,600**	**8,300**
TP1-15	7/19/2021	15	**11**	**160**	**120**	**120**	**411**	**2,200**	**5,600**	**2,300**	**10,100**	**5,200**
TP1-20	7/19/2021	20	**29**	**210**	**140**	**160**	**539**	**3,200**	**7,200**	**2,900**	**13,300**	**4,200**
TP2-2	7/19/2021	2	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<10	<50	<50	<60
TP2-6	7/19/2021	6	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.9	<50	<50	<60
TP3-2	7/19/2021	2	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<8.9	<44	<44	**590**
TP3-4	7/19/2021	4	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<8.8	<44	<44	**300**
TP3-7	7/19/2021	7	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<8.5	<43	<43	**93**
TP4-S	7/20/21	Surface	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.4	<47	<47	<60
TP4-2	7/20/21	2	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.9	<49	<49	<60
TP5-S	7/20/21	Surface	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<8.8	<44	<44	<60
TP5-2	7/20/21	2	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.8	<49	<49	**450**
TP5-8	7/20/21	8	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<8.8	<44	<44	**390**
TP5-14	7/20/21	14	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.7	<48	<48	**66**
TP6-S	7/20/21	Surface	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.9	<49	<49	<60
TP6-2	7/20/21	2	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<9.5	<47	<47	**91**
TP7-S	8/30/21	Surface	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.7	<48	<48	<61
TP7-2	8/30/21	2	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<9.3	<47	<47	<60
TP8-S	8/30/21	Surface	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.4	<47	<47	<60
TP8-2	8/30/21	2	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.8	<49	<49	<60
TP9-S	8/30/21	Surface	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<9.9	<50	<50	<60
TP9-2	8/30/21	2	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.6	<48	<48	110
TP10-S	8/30/21	Surface	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<10	<50	<50	<60
TP10-2	8/30/21	2	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<10	<50	<50	<60
TP11-6	8/30/21	6	<0.49	<0.97	<0.97	<1.9	<1.9	**240**	**5,800**	**2,600**	**8,640**	**67**
TP11-10	8/30/21	10	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.6	<48	<48	**87**
TP11-12	8/30/21	12	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.4	<47	<47	**86**
TP11-15	8/30/21	15	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	**93**	**63**	**156**	**82**
TP11-20	8/30/21	20	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<9.9	<50	<50	**200**
TPX-1-14'	5/11/22	14	<0.100	**0.153**	**11.4**	**21.9**	**33.5**	**397**	**2,510**	**341**	**3,248**	**32.0**
TPX-1-14' SW	5/11/22	14	<0.050	<0.050	**5.66**	**6.97**	**12.6**	**495**	**4060**	**537**	**5,092**	**32.0**
TPX-1-23'	5/11/22	23	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**32.0**
TPX-1-23' SW	5/11/22	23	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	**32.0**

Table 1
Summary of Soil Analytical Data
Rodke AOY 1
EOG Resources
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Total Petroleum Hydrocarbons (TPH)				Chloride
								GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Table I Closure Criteria for Soils between 51 and 100 feet Depth to Groundwater 19.15.29 NMAC									
			10 mg/kg	---	---	---	50 mg/kg	1,000 mg/kg		---	2,500 mg/kg	10,000 mg/kg
Soil Boring Samples												
SB-1-5'	12/21/2021	5	50	190	110	110	460	3,100	1,600	550	5,250	4,200
SB-1-10'	12/21/2021	10	6	59	51	60	176	1,400	3,600	1,200	6,200	4,900
SB-1-15'	12/21/2021	15	<0.48	10	17	19	46	480	4,200	1,700	6,380	2,900
SB-1-20'	12/21/2021	20	1.6	22	33	40	96.6	790	7,000	2,800	10,590	2,300
SB-1-25'	12/21/2021	25	0.046	0.21	0.54	0.64	1.436	34	130	<45	164	71
SB-1-30'	12/21/2021	30	<0.024	0.15	0.95	1.5	2.6	40	950	350	1,340	120
SB-1-35'	12/21/2021	35	0.16	2.2	3.7	4.1	10.16	96	920	350	1,366	260
SB-1-40'	12/21/2021	40	3.8	21	21	21	66.8	610	380	140	1,130	290
SB-1-45'	12/21/2021	45	53	260	170	170	653	4,400	10,000	3,500	17,900	89
SB-1-50'	12/21/2021	50	0.074	<0.050	<0.050	<0.099	0.074	<5.0	<9.6	<48	<48	<60
Composite Confirmation Samples												
CBH	4/13/2022	23	2.7	5.0	2.9	3.0	13.6	71	67	<49	138	470
SSW	4/13/2022	Sidewall	2.0	21	23	25	71	380	6,200	3,000	9,580	15,000
NSW	4/13/2022	Sidewall	2.9	51	58	63	174.9	880	6,900	2,900	10,680	7,400
WSW	4/13/2022	Sidewall	5.6	66	57	58	186.6	850	3,200	1,300	5,350	2,800
ESW	4/13/2022	Sidewall	0.76	22	47	59	128.76	700	5,400	2,800	8,900	71
Bottom Hole Confirmation Samples												
BH-1	6/2/2022	4-8	<0.12	<0.24	<0.24	<0.49	<0.49	<24	36	<47	36	62
BH-2	6/2/2022	4-8	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<14	<46	<46	690
BH-3	6/2/2022	4-8	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	<14	<47	<47	740
BH-4	6/2/2022	8-12	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<14	<48	<48	370
BH-5	6/2/2022	8-12	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<14	<48	<48	870
BH-6	6/2/2022	8-12	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<14	<48	<48	1,200
BH-7	6/2/2022	12-16	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<14	<47	<47	550
BH-8	6/2/2022	12-16	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	90	<48	90	540
BH-9	6/2/2022	12-16	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	30	<47	30	550
BH-10	6/10/2022	16-20	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	190	110	300	470
BH-11	6/10/2022	16-20	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	650	250	900	860
BH-12	6/10/2022	16-20	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	460	200	660	690
BH-13	6/10/2022	20-22	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<14	<46	<46	270
BH-14	6/10/2022	20-22	<0.12	<0.25	<0.25	<0.49	<0.49	<25	320	190	510	710
BH-15	6/10/2022	20-22	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	28	<50	28	330
BH-16	6/10/2022	22	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<14	<48	<48	<60
BH-17	6/10/2022	22	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<14	<47	<47	<60
BH-18	6/10/2022	ach	<0.12	<0.23	<0.23	<0.47	<0.47	<23	250	90	340	<60
BH-19	6/10/2022	20-22	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<15	<49	<49	250
BH-20	6/10/2022	20-22	<0.23	3.6	5.3	15	23.9	290	3,600	1,300	5,190	5,600
BH-21	6/10/2022	22	4.3	39	31	32	106.3	500	2,400	870	3,770	2,800

Table 1
Summary of Soil Analytical Data
Rodke AOY 1
EOG Resources
Eddy County, New Mexico

Sample ID	Sample Date	Depth (ft bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Total Petroleum Hydrocarbons (TPH)				Chloride
								GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
			Table I Closure Criteria for Soils between 51 and 100 feet Depth to Groundwater 19.15.29 NMAC									
			10 mg/kg	---	---	---	50 mg/kg	1,000 mg/kg		---	2,500 mg/kg	10,000 mg/kg
Sidewall Confirmation Samples												
SW-1	6/2/2022	Sidewall	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<14	<47	<47	**200**
SW-2	6/2/2022	Sidewall	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<15	<50	<50	<60
SW-3	6/2/2022	Sidewall	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<15	<49	<49	**180**
SW-4	6/2/2022	Sidewall	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<15	<49	<49	<60
SW-5	6/2/2022	Sidewall	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<14	<46	<46	**100**
SW-6	6/10/2022	Sidewall	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<15	<50	<50	<60
SW-7	6/10/2022	Sidewall	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<15	<48	<48	**510**
SW-8	6/10/2022	Sidewall	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	**16**	<48	**16**	**210**
SW-9	6/10/2022	Sidewall	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	**130**	**56**	**186**	**420**
SW-10	6/10/2022	Sidewall	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	**700**	**510**	**1,210**	**610**
SW-11	6/10/2022	Sidewall	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	**250**	**110**	**360**	**340**
SW-12	6/10/2022	Sidewall	<0.12	<0.24	<0.24	<0.49	<0.49	<24	**430**	**180**	**610**	**720**
SW-13	6/10/2022	Sidewall	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	**250**	**110**	**360**	**690**
SW-14	6/10/2022	Sidewall	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	**910**	**330**	**1,240**	**740**
SW-15	6/10/2022	Sidewall	<0.12	<0.24	<0.24	<0.49	<0.49	<24	**760**	**360**	**1,120**	**1,000**
SW-16	6/10/2022	Sidewall	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	**560**	**240**	**800**	**1,100**
SW-17	6/10/2022	Sidewall	<0.12	<0.25	<0.25	<0.50	<0.50	<25	**55**	<49	**55**	**830**
ConfirmationBoring Samples												
CB-1	11/8/2022	35'	**0.305**	**0.469**	**1.51**	**1.04**	**3.33**	**10.1**	**180**	**26**	**216**	**480**
CB-1	11/8/2022	40'	**0.678**	**5.08**	**8.33**	**6.97**	**21.1**	**20.1**	**183**	**29**	**232**	**624**
CB-1	11/8/2022	45'	**2.05**	**18.5**	**32.4**	**31.8**	**84.8**	**338**	**1,870**	**242**	**2,450**	**640**
CB-1	11/8/2022	50'	**1.46**	**11.2**	**18.1**	**17.3**	**48.1**	**202**	**1,060**	**138**	**1,400**	**896**
CB-1A	4/20/2023	35'	<0.025	<0.025	<0.025	<0.025	<0.025	<20	**44.6**	<50	**44.6**	**2260**
CB-1A	4/20/2023	40'	<0.025	<0.025	<0.025	<0.025	<0.025	<20	<25	<50	<50	**510**
CB-1A	4/20/2023	45'	**0.258**	**5.51**	**13.3**	**15.3**	**34.37**	**210**	**3,390**	<1000	**3,600**	**457**
CB-1A	4/20/2023	50'	**1.39**	**10.2**	**17.8**	**20.8**	**50.19**	**272**	**3,790**	<1000	**4,062**	**267**

Notes:

1. Values reported in mg/kg
2. < = Value Less than Reporting Limit (RL)
3. Bold Indicates Analyte Detected
4 BTEX analyses by EPA Method SW 8021B.
5. TPH analyses by EPA Method SW 8015 Mod.
~~B-BH-2~~ Sample Point Excavated
6. GRO/DRO/MRO = Gasoline/Diesel/Motor Oil
7. Indicates analytical samples that exceed the NMOC 19.15.29.12 Table 1 Closure Criteria for the site.
8. Indicates analytical samples that exceed the NMOC 19.15.29.13 Table 1 Closure Criteria for the site. (Top four feet)
9. --- = not defined

Attachments

Attachment A

Soil Boring Logs

STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Rodke AOY #1
PROJECT NUMBER: 11230052
CLIENT: EOG Resources
LOCATION: Eddy County, New Mexico
DRILLING CONTRACTOR: HCI Drilling

HOLE DESIGNATION: CB-1
DATE COMPLETED: 11 August 2022
DRILLING METHOD: Air Rotary
FIELD PERSONNEL: L. Mullins
DRILLER: K. Cooper

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value	PID (ppm)
0	BACKFILL: caliche rock with sand, brown, dry						
24	CL-SILTY CLAY, reddish brown, slightly moist	24.00					
34			33-35'				926.1
36	SP-SAND, fine to medium grained, light brown, slightly moist	36.00					
40			38-40'				3551
44			43-45'				2231
47	CL-SANDY CLAY, with partially consolidated sandstone, slightly moist	47.00					

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (33-35', 38-40', 43-45')

File: \\GHDNET\GHD\US\MIDLAND\PROJECTS\562\11230052\TECH\GINT LOGS\11230052 LOGS-V01.GPJ Library File: GHD_ENVIRO_V06.GLB Report: OVERBURDEN LOG Date: 11/11/22

STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Rodke AOY #1
PROJECT NUMBER: 11230052
CLIENT: EOG Resources
LOCATION: Eddy County, New Mexico
DRILLING CONTRACTOR: HCI Drilling

HOLE DESIGNATION: CB-1
DATE COMPLETED: 11 August 2022
DRILLING METHOD: Air Rotary
FIELD PERSONNEL: L. Mullins
DRILLER: K. Cooper

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value	SAMPLE PID (ppm)
50	END OF BOREHOLE @ 50.00ft BGS	50.00	48-50'				1288

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (48-50')

File: \\GHDNET\GHD\US\MIDLAND\PROJECTS\562\11230052\TECH\GINT LOGS\11230052 LOGS-V01.GPJ Library File: GHD_ENVIRO_V06.GLB Report: OVERBURDEN LOG Date: 11/11/22

STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Rodke AOY #1
PROJECT NUMBER: 11230052
CLIENT: EOG Resources
LOCATION: Eddy County, New Mexico

HOLE DESIGNATION: CB-1A
DATE COMPLETED: 18 April 2023
DRILLING METHOD: Air Rotary
FIELD PERSONNEL: D. SPARKS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
2	BACKFILL, caliche rock with sand, brown					
4						
6						
8						
10						
12						
14						
16						
18						
20						
22						
24						
26						
28						
30	CL-SILTY CLAY, light brown/reddish brown	30.00				
32						
34			33-35'			
36						
38	SP-SAND, fine to medium grained, light brown	38.00	38-40'			
40						
42						
44			43-45'			
46	CL-SANDY CLAY, light brown	45.00				

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

File: \\GHDNET\GHD\US\MIDLAND\PROJECTS\562\11230052\TECH\GINT LOGS\11230052-WA-052023.GPJ Library File: GHD_ENVIRO_V08.GLB Report: OVERBURDEN LOG Date: 23/5/23

STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Rodke AOY #1
PROJECT NUMBER: 11230052
CLIENT: EOG Resources
LOCATION: Eddy County, New Mexico

HOLE DESIGNATION: CB-1A
DATE COMPLETED: 18 April 2023
DRILLING METHOD: Air Rotary
FIELD PERSONNEL: D. SPARKS

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH BGS	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE 'N' Value
50	END OF BOREHOLE @ 50.00ft BGS	50.00	48-50'			

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (48-50')

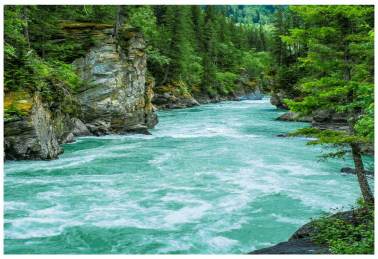
File: \\GHDNET\GHD\US\MIDLAND\PROJECTS\562\11230052\TECH\GINT LOGS\11230052-WA-052023.GPJ Library File: GHD_ENVIRO_V08.GLB Report: OVERBURDEN LOG Date: 23/5/23

Attachment B

Laboratory Analytical Reports and Chain-of-Custody Documentation

Report to:

Moshghan Mansoori



5796 U.S. Hwy 64
Farmington, NM 87401

Phone: (505) 632-1881
Envirotech-inc.com

envirotech

Practical Solutions for a Better Tomorrow

Analytical Report

GHD

Project Name:	11230052/ Rodke AOY #1
Work Order:	E304104
Job Number:	19034-0001
Received:	4/20/2023

Revision: 2

Report Reviewed By:

Walter Hinchman
Laboratory Director
4/26/23

Date Reported: 4/26/23

Moshghan Mansoori
6121 Indian School Rd. NE #200
Albuquerque, NM 87110

Project Name: 11230052/ Rodke AOY #1
Workorder: E304104
Date Received: 4/20/2023 8:15:00AM

Moshghan Mansoori,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/20/2023 8:15:00AM, under the Project Name: 11230052/ Rodke AOY #1.

The analytical test results summarized in this report with the Project Name: 11230052/ Rodke AOY #1 apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues reguarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

Walter Hinchman
Laboratory Director
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Cell: 775-287-1762
whinchman@envirotech-inc.com

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Technical Representative
Office: 505-421-LABS(5227)

Envirotech Web Address: www.envirotech-inc.com

Table of Contents

Sample Summary

GHD	Project Name:	11230052/ Rodke AOY #1	**Reported:**
6121 Indian School Rd. NE #200	Project Number:	19034-0001	
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	04/26/23 14:02

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
CB-1A (35 ft)	E304104-01A	Soil	04/18/23	04/20/23	Glass Jar, 4 oz.
CB-1A (40 ft)	E304104-02A	Soil	04/18/23	04/20/23	Glass Jar, 4 oz.
CB-1A (45 ft)	E304104-03A	Soil	04/18/23	04/20/23	Glass Jar, 4 oz.
CB-1A (50 ft)	E304104-04A	Soil	04/18/23	04/20/23	Glass Jar, 4 oz.

Sample Data

GHD	Project Name:	11230052/ Rodke AOY #1	
6121 Indian School Rd. NE #200	Project Number:	19034-0001	**Reported:**
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

CB-1A (35 ft)

E304104-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Benzene	ND	0.0250	1	04/20/23	04/22/23	
Ethylbenzene	ND	0.0250	1	04/20/23	04/22/23	
Toluene	ND	0.0250	1	04/20/23	04/22/23	
o-Xylene	ND	0.0250	1	04/20/23	04/22/23	
p,m-Xylene	ND	0.0500	1	04/20/23	04/22/23	
Total Xylenes	ND	0.0250	1	04/20/23	04/22/23	
Surrogate: Bromofluorobenzene		*101 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: Toluene-d8		*107 %*	*70-130*	*04/20/23*	*04/22/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/20/23	04/22/23	
Surrogate: Bromofluorobenzene		*101 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: 1,2-Dichloroethane-d4		*107 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: Toluene-d8		*107 %*	*70-130*	*04/20/23*	*04/22/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2316063
Diesel Range Organics (C10-C28)	**44.6**	25.0	1	04/21/23	04/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/21/23	04/22/23	
Surrogate: n-Nonane		*109 %*	*50-200*	*04/21/23*	*04/22/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2316050
Chloride	**2260**	20.0	1	04/20/23	04/22/23	

Sample Data

GHD	Project Name:	11230052/ Rodke AOY #1	
6121 Indian School Rd. NE #200	Project Number:	19034-0001	**Reported:**
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

CB-1A (40 ft)

E304104-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Benzene	ND	0.0250	1	04/20/23	04/22/23	
Ethylbenzene	ND	0.0250	1	04/20/23	04/22/23	
Toluene	ND	0.0250	1	04/20/23	04/22/23	
o-Xylene	ND	0.0250	1	04/20/23	04/22/23	
p,m-Xylene	ND	0.0500	1	04/20/23	04/22/23	
Total Xylenes	ND	0.0250	1	04/20/23	04/22/23	
Surrogate: Bromofluorobenzene		*98.6 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: Toluene-d8		*104 %*	*70-130*	*04/20/23*	*04/22/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/20/23	04/22/23	
Surrogate: Bromofluorobenzene		*98.6 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: 1,2-Dichloroethane-d4		*108 %*	*70-130*	*04/20/23*	*04/22/23*	
Surrogate: Toluene-d8		*104 %*	*70-130*	*04/20/23*	*04/22/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2316063
Diesel Range Organics (C10-C28)	ND	25.0	1	04/21/23	04/22/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/21/23	04/22/23	
Surrogate: n-Nonane		*112 %*	*50-200*	*04/21/23*	*04/22/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2316050
Chloride	**510**	20.0	1	04/20/23	04/22/23	

Sample Data

GHD	Project Name:	11230052/ Rodke AOY #1	
6121 Indian School Rd. NE #200	Project Number:	19034-0001	**Reported:**
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

CB-1A (45 ft)

E304104-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Benzene	**0.258**	0.125	5	04/20/23	04/24/23	
Ethylbenzene	**13.3**	0.125	5	04/20/23	04/24/23	
Toluene	**5.51**	0.125	5	04/20/23	04/24/23	
o-Xylene	**5.06**	0.125	5	04/20/23	04/24/23	
p,m-Xylene	**10.2**	0.250	5	04/20/23	04/24/23	
Total Xylenes	**15.3**	0.125	5	04/20/23	04/24/23	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: Toluene-d8		*99.4 %*	*70-130*	*04/20/23*	*04/24/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Gasoline Range Organics (C6-C10)	**210**	100	5	04/20/23	04/24/23	
Surrogate: Bromofluorobenzene		*112 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: 1,2-Dichloroethane-d4		*112 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: Toluene-d8		*99.4 %*	*70-130*	*04/20/23*	*04/24/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2316063
Diesel Range Organics (C10-C28)	**3390**	500	20	04/21/23	04/22/23	
Oil Range Organics (C28-C36)	ND	1000	20	04/21/23	04/22/23	
Surrogate: n-Nonane		*154 %*	*50-200*	*04/21/23*	*04/22/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2316050
Chloride	**457**	20.0	1	04/20/23	04/22/23	

Sample Data

GHD	Project Name:	11230052/ Rodke AOY #1	
6121 Indian School Rd. NE #200	Project Number:	19034-0001	**Reported:**
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

CB-1A (50 ft)

E304104-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
Volatile Organic Compounds by EPA 8260B	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Benzene	**1.39**	0.125	5	04/20/23	04/24/23	
Ethylbenzene	**17.8**	0.125	5	04/20/23	04/24/23	
Toluene	**10.2**	0.125	5	04/20/23	04/24/23	
o-Xylene	**6.80**	0.125	5	04/20/23	04/24/23	
p,m-Xylene	**14.0**	0.250	5	04/20/23	04/24/23	
Total Xylenes	**20.8**	0.125	5	04/20/23	04/24/23	
Surrogate: Bromofluorobenzene		*109 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*04/20/23*	*04/24/23*	
Nonhalogenated Organics by EPA 8015D - GRO	mg/kg	mg/kg	Analyst: IY			Batch: 2316038
Gasoline Range Organics (C6-C10)	**272**	100	5	04/20/23	04/24/23	
Surrogate: Bromofluorobenzene		*109 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: 1,2-Dichloroethane-d4		*113 %*	*70-130*	*04/20/23*	*04/24/23*	
Surrogate: Toluene-d8		*100 %*	*70-130*	*04/20/23*	*04/24/23*	
Nonhalogenated Organics by EPA 8015D - DRO/ORO	mg/kg	mg/kg	Analyst: JL			Batch: 2316063
Diesel Range Organics (C10-C28)	**3790**	500	20	04/21/23	04/22/23	
Oil Range Organics (C28-C36)	ND	1000	20	04/21/23	04/22/23	
Surrogate: n-Nonane		*157 %*	*50-200*	*04/21/23*	*04/22/23*	
Anions by EPA 300.0/9056A	mg/kg	mg/kg	Analyst: RAS			Batch: 2316050
Chloride	**267**	20.0	1	04/20/23	04/22/23	

QC Summary Data

GHD	Project Name:	11230052/ Rodke AOY #1	**Reported:**
6121 Indian School Rd. NE #200	Project Number:	19034-0001	
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2316038-BLK1)									Prepared: 04/20/23 Analyzed: 04/21/23
Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	*0.497*		*0.500*		*99.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.578*		*0.500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.522*		*0.500*		*104*	*70-130*			
LCS (2316038-BS1)									Prepared: 04/20/23 Analyzed: 04/21/23
Benzene	2.41	0.0250	2.50		96.3	70-130			
Ethylbenzene	2.41	0.0250	2.50		96.2	70-130			
Toluene	2.47	0.0250	2.50		98.7	70-130			
o-Xylene	2.39	0.0250	2.50		95.6	70-130			
p,m-Xylene	4.82	0.0500	5.00		96.4	70-130			
Total Xylenes	7.21	0.0250	7.50		96.2	70-130			
Surrogate: Bromofluorobenzene	*0.550*		*0.500*		*110*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.578*		*0.500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.531*		*0.500*		*106*	*70-130*			
Matrix Spike (2316038-MS1)				**Source: E304099-21**					Prepared: 04/20/23 Analyzed: 04/21/23
Benzene	2.47	0.0250	2.50	ND	98.7	48-131			
Ethylbenzene	2.46	0.0250	2.50	ND	98.3	45-135			
Toluene	2.53	0.0250	2.50	ND	101	48-130			
o-Xylene	2.46	0.0250	2.50	ND	98.5	43-135			
p,m-Xylene	4.91	0.0500	5.00	ND	98.1	43-135			
Total Xylenes	7.37	0.0250	7.50	ND	98.2	43-135			
Surrogate: Bromofluorobenzene	*0.543*		*0.500*		*109*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.544*		*0.500*		*109*	*70-130*			
Surrogate: Toluene-d8	*0.524*		*0.500*		*105*	*70-130*			
Matrix Spike Dup (2316038-MSD1)				**Source: E304099-21**					Prepared: 04/20/23 Analyzed: 04/21/23
Benzene	2.51	0.0250	2.50	ND	100	48-131	1.73	23	
Ethylbenzene	2.48	0.0250	2.50	ND	99.1	45-135	0.851	27	
Toluene	2.55	0.0250	2.50	ND	102	48-130	0.688	24	
o-Xylene	2.47	0.0250	2.50	ND	98.9	43-135	0.365	27	
p,m-Xylene	4.90	0.0500	5.00	ND	98.1	43-135	0.0408	27	
Total Xylenes	7.38	0.0250	7.50	ND	98.3	43-135	0.0950	27	
Surrogate: Bromofluorobenzene	*0.535*		*0.500*		*107*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.547*		*0.500*		*109*	*70-130*			
Surrogate: Toluene-d8	*0.516*		*0.500*		*103*	*70-130*			

QC Summary Data

GHD	Project Name:	11230052/ Rodke AOY #1	**Reported:**
6121 Indian School Rd. NE #200	Project Number:	19034-0001	
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2316038-BLK1)									Prepared: 04/20/23 Analyzed: 04/21/23
Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	*0.497*		*0.500*		*99.4*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.578*		*0.500*		*116*	*70-130*			
Surrogate: Toluene-d8	*0.522*		*0.500*		*104*	*70-130*			
LCS (2316038-BS2)									Prepared: 04/20/23 Analyzed: 04/21/23
Gasoline Range Organics (C6-C10)	51.9	20.0	50.0		104	70-130			
Surrogate: Bromofluorobenzene	*0.519*		*0.500*		*104*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.551*		*0.500*		*110*	*70-130*			
Surrogate: Toluene-d8	*0.536*		*0.500*		*107*	*70-130*			
Matrix Spike (2316038-MS2)				**Source: E304099-21**					Prepared: 04/20/23 Analyzed: 04/21/23
Gasoline Range Organics (C6-C10)	54.8	20.0	50.0	ND	110	70-130			
Surrogate: Bromofluorobenzene	*0.503*		*0.500*		*101*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.524*		*0.500*		*105*	*70-130*			
Surrogate: Toluene-d8	*0.535*		*0.500*		*107*	*70-130*			
Matrix Spike Dup (2316038-MSD2)				**Source: E304099-21**					Prepared: 04/20/23 Analyzed: 04/21/23
Gasoline Range Organics (C6-C10)	51.4	20.0	50.0	ND	103	70-130	6.38	20	
Surrogate: Bromofluorobenzene	*0.501*		*0.500*		*100*	*70-130*			
Surrogate: 1,2-Dichloroethane-d4	*0.536*		*0.500*		*107*	*70-130*			
Surrogate: Toluene-d8	*0.533*		*0.500*		*107*	*70-130*			

QC Summary Data

GHD	Project Name:	11230052/ Rodke AOY #1	**Reported:**
6121 Indian School Rd. NE #200	Project Number:	19034-0001	
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2316063-BLK1)									Prepared: 04/21/23 Analyzed: 04/22/23
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	*57.3*		*50.0*		*115*	*50-200*			
LCS (2316063-BS1)									Prepared: 04/21/23 Analyzed: 04/22/23
Diesel Range Organics (C10-C28)	281	25.0	250		112	38-132			
Surrogate: n-Nonane	*54.9*		*50.0*		*110*	*50-200*			
Matrix Spike (2316063-MS1)				**Source: E304103-01**					Prepared: 04/21/23 Analyzed: 04/22/23
Diesel Range Organics (C10-C28)	587	25.0	250	353	93.8	38-132			
Surrogate: n-Nonane	*54.8*		*50.0*		*110*	*50-200*			
Matrix Spike Dup (2316063-MSD1)				**Source: E304103-01**					Prepared: 04/21/23 Analyzed: 04/22/23
Diesel Range Organics (C10-C28)	591	25.0	250	353	95.4	38-132	0.663	20	
Surrogate: n-Nonane	*55.1*		*50.0*		*110*	*50-200*			

QC Summary Data

GHD	Project Name:	11230052/ Rodke AOY #1	**Reported:**
6121 Indian School Rd. NE #200	Project Number:	19034-0001	
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	4/26/2023 2:02:23PM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	
Blank (2316050-BLK1)									Prepared: 04/20/23 Analyzed: 04/22/23
Chloride	ND	20.0							
LCS (2316050-BS1)									Prepared: 04/20/23 Analyzed: 04/22/23
Chloride	254	20.0	250		101	90-110			
Matrix Spike (2316050-MS1)				**Source: E304102-01**					Prepared: 04/20/23 Analyzed: 04/22/23
Chloride	681	20.0	250	440	96.2	80-120			
Matrix Spike Dup (2316050-MSD1)				**Source: E304102-01**					Prepared: 04/20/23 Analyzed: 04/22/23
Chloride	655	20.0	250	440	86.1	80-120	3.79	20	

QC Summary Report Comment:
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Definitions and Notes

GHD	Project Name:	11230052/ Rodke AOY #1	
6121 Indian School Rd. NE #200	Project Number:	19034-0001	**Reported:**
Albuquerque NM, 87110	Project Manager:	Moshghan Mansoori	04/26/23 14:02

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference
DNI	Did Not Ignite

Note (1): Methods marked with ** are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.

Project Information | Chain of Custody | Page 1 of 1

Client: GHD	Bill To	Lab Use Only
Project: 11230052/ Rodke AOY #1	Attention: EOG Amber Griffin	Lab WO# E304104
Project Manager: Moshghan Mansoori/ JT Murrey	Address: 1045 4th St.	Job Number 19034-0001
Address:6121 Indian School Rd. NE St. 200	City, State, Zip: Artesia, NM 88210	
City, State, Zip: Albuquerque, NM 87110	Phone:	
Phone:+1 (425) 563-6516	Email: amber_griffin@eogresources.com	
Email: Moshghan.mansoori@ghd.com		
Report due by:		

TAT				EPA Program	
1D	2D	3D	Standard	CWA	SDWA
			X		

RCRA

State: NM | CO | UT | AZ | TX

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
	4/18/2023	SO	1	CB-1A (35 ft)	1	X	X			X			
	4/18/2023	SO	1	CB-1A (40 ft)	2	X	X			X			
	4/18/2023	SO	1	CB-2A (35 ft)	3	X	X			X			
	4/18/2023	SO	1	CB-2A (40 ft)	4	X	X			X			

Analysis and Method

Additional Instructions: Please email results to: amber_griffin@eogresources.com; chase_settle@eogresources.com; jt.murrey@ghd.com; daniel.sparks@ghd.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Daniel Sparks

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
D Sparks	4-19-23	4:30		4-19-25	4:30
	4-19-23	4:30		4/20/23	8:15

Lab Use Only
Received on ice: (Y) / N
T1 T2 T3
AVG Temp °C 4

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

Envirotech Analytical Laboratory

Printed: 4/20/2023 12:21:12PM

Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.
If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	GHD	Date Received:	04/20/23 08:15	Work Order ID:	E304104
Phone:	(505) 884-0672	Date Logged In:	04/20/23 09:37	Logged In By:	Caitlin Christian
Email:	moshghan.mansoori@ghd.com	Due Date:	04/26/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC?	No	
2. Does the number of samples per sampling site location match the COC	Yes	
3. Were samples dropped off by client or carrier?	Yes	Carrier: Courier
4. Was the COC complete, i.e., signatures, dates/times, requested analyses?	No	
5. Were all samples received within holding time? Note: Analysis, such as pH which should be conducted in the field, i.e, 15 minute hold time, are not included in this disucssion.	Yes	

Sample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT?	Yes	

Sample Cooler

7. Was a sample cooler received?	Yes	
8. If yes, was cooler received in good condition?	Yes	
9. Was the sample(s) received intact, i.e., not broken?	Yes	
10. Were custody/security seals present?	No	
11. If yes, were custody/security seals intact?	NA	
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling	Yes	
13. If no visible ice, record the temperature. Actual sample temperature: 4°C		

Sample Container

14. Are aqueous VOC samples present?	No	
15. Are VOC samples collected in VOA Vials?	NA	
16. Is the head space less than 6-8 mm (pea sized or less)?	NA	
17. Was a trip blank (TB) included for VOC analyses?	NA	
18. Are non-VOC samples collected in the correct containers?	Yes	
19. Is the appropriate volume/weight or number of sample containers collected?	Yes	

Field Label

20. Were field sample labels filled out with the minimum information:		
Sample ID?	Yes	
Date/Time Collected?	Yes	
Collectors name?	Yes	

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved?	No	
22. Are sample(s) correctly preserved?	NA	
24. Is lab filteration required and/or requested for dissolved metals?	No	

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase?	No	
27. If yes, does the COC specify which phase(s) is to be analyzed?	NA	

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory?	No	
29. Was a subcontract laboratory specified by the client and if so who?	NA	Subcontract Lab: NA

Comments/Resolution

Samples 3 & 4 sample ID were incorrect on the COC . Daniel confirmed the sample name for #3 to be CB-1A (45ft) and sample #4 name to be CB-1A (50ft) as labeled on the physical jar sample. Corrections have been made on green COC.Time sampled was not on COC

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date

envirotech Inc.

Project Information | Chain of Custody | Page 1 of 1

Client: GHD	**Bill To**	**Lab Use Only**
Project: 11230052/ Rodke AOY #1	Attention: EOG Amber Griffin	Lab WO# E304104 / Job Number 19034-0041
Project Manager: Moshghan Mansoori/ JT Murrey	Address: 1045 4th St.	**TAT**: 1D 2D 3D Standard: X
Address:6121 Indian School Rd. NE St. 200	City, State, Zip: Artesia, NM 88210	**EPA Program**: CWA / SDWA / RCRA
City, State, Zip: Albuquerque, NM 87110	Phone:	State: NM CO UT AZ TX
Phone:+1 (425) 563-6516	Email: amber_griffin@eogresources.com	
Email: Moshghan.mansoori@ghd.com		
Report due by:		

Analysis and Method

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	GDOC TX	Remarks
	4/18/2023	SO	1	CB-1A (35 ft)	1	X	X			X			
	4/18/2023	SO	1	CB-1A (40 ft)	2	X	X			X			
	4/18/2023	SO	1	~~CB-2A (35 ft)~~ CB-1A (45ft)	3	X	X			X			4/20/23 per. Client
	4/18/2023	SO	1	~~CB-2A (40 ft)~~ CB-1A (50ft)	4	X	X			X			

Additional Instructions: Please email results to: amber_griffin@eogresources.com; chase_settle@eogresources.com; jt.murrey@ghd.com; daniel.sparks@ghd.com

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Daniel Sparks

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
D Sparks	4-19-23	4:30		4-19-25	4:30
	4-19-23	4:30		4/20/23	8:15

Lab Use Only: Received on ice: (Y) / N; T1 ____ T2 ____ T3 ____; AVG Temp °C 4

Sample Matrix: **S** - Soil, **Sd** - Solid, **Sg** - Sludge, **A** - Aqueous, **O** - Other ____

Container Type: **g** - glass, **p** - poly/plastic, **ag** - amber glass, **v** - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

envirotech

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

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 240342
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	Thank you for the update on the progress of the remediation work. Please continue to conduct treatment injections at the site. Keep the OCD updated on the bioremediation treatment. Once the bioremediation treatment is completed and all remediation work is final, please complete a Remediation Closure Report and upload it to the OCD Permitting website for review.	1/10/2024