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	nAPP2125655405
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party EOG Resources, Inc.	OGRID 7377
Contact Name Chase Settle	Contact Telephone 575-748-1471
Contact email Chase_Settle@eogresources.com	Incident # nAPP2125655405
Contact mailing address 104 S. 4th Street, Artesia, NM 88210	

Location of Release Source

Latitude 32.7207794 Longitude -104.4318771
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Hornbaker BA #2	Site Type Well Pad
Date Release Discovered 9/10/2021	API# 30-015-20592

Unit Letter	Section	Township	Range	County
H	25	18S	25E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* Hornbaker Estate)

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) Unknown	Volume Recovered (bbls) 0
☑ Produced Water	Volume Released (bbls) Unknown	Volume Recovered (bbls) 0
	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: Historical impacts were discovered around the wellhead during the reclamation activities. The release date and volume is unknown, the environmental consultant contracted to investigate the site determined based that the release most likely crossed the reportable threshold due the concentrations encountered and size of the impacted area.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2125655405
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: Chase Settle
Title: Rep Safety & Environmental Sr
Signature: Chase Settle
Date: 09/13/2021
email: Chase_Settle@eogresources.com
Telephone: 575-748-1471

OCD Only

Received by: Ramona Marcus
Date: 9/13/2021

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2125655405
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2125655405
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: Chase Settle Title: Rep Safety & Environmental Sr

Signature: Chase Settle Date: 01/31/2022

email: Chase_Settle@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2125655405
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: 01/31/2022

email: Chase_Settle@eogresources.com Telephone: 575-748-1471

OCD Only

Received by: _____ Date: _____

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

Signature: Jennifer Nobui Date: 02/09/2022

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

Our ref: 11228980

January 28, 2022

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

Re: Site Characterization and Remediation Work Plan
Hornbaker BA #2 Release Site
EOG Resources Inc.
Incident ID: nAPP2125655405
H-25-18S-25E, Eddy County, New Mexico

To Whom It May Concern:

1. Introduction

GHD Services, Inc. (GHD), on behalf of EOG Resources (EOG), submits this Site Characterization and Remediation Work Plan to the New Mexico Oil Conservation Division (NMOCD) District 2 Office. This Report provides documentation of delineation, sampling, and analyses in the affected area at the EOG Hornbaker BA #2 Release Site (Site). Remedial activities are also proposed for NMOCD considerations. The Site is located in Unit Letter H Section 25 of Township 18 South and Range 25 East in Eddy County, New Mexico. The GPS coordinates for the release site are 32.7207794 N latitude and 104.4318771 W longitude. The release occurred on private land owned by Hornbaker Estate. Figure 1 depicts the Site location. The EOG production facility and other site details are depicted on Figure 2, Site Assessment: Soil Analytical Results Map.

2. Background Information

A C-141 initial report for this release was submitted to the NMOCD on September 13, 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's restoration and reclamation process with this location. Soils around the dry hole marker appeared to be discolored 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 nAPP2125655405. The Release Notification and, Site Assessment/Characterization portions of Form C-141 are attached to the front of this report.

3. Groundwater and Site Characterization

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).

GHD and White Drilling Company, Inc (White), on behalf of EOG, installed a groundwater determination soil boring (DTW Well) at the following GPS coordinates, 32.71749 N latitude and 104.43004 W longitude located within 0.25 miles to the south of the Site. The DTW Well was drilled to 107.5 feet below ground surface (bgs) and was left open for 72 hours. After utilization of a water level meter it was determined groundwater was greater than 107.5 feet bgs. and the boring was plugged. No other receptors (karst potential areas, water wells, playas, wetlands, waterways, lakebeds or ordinance boundaries) were located within each specific boundary or distance from the Site.

According to the Site characterization evaluation and 19.15.29.12.C(4)(a)(i) the Site is located within an area that meets closure criteria for depth to groundwater greater than one hundred (100) feet for Table 1 in NMAC 19.15.29.12. The Site characterization documentation (DTW Well: Stratigraphic and Instrumental Log, Karst Potential, FEMA, Watercourse, Points of Diversion and Wetlands maps) are provided in Attachment A. The soil and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
No Receptors Found	>100’

Table 3.1 Closure Criteria for Soils Impacted by a Release (NMAC 19.15.29.12)

Constituent	Limits
Chloride	20,000 mg/kg
TPH (GRO+DRO+MRO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
Benzene	10 mg/kg
BTEX	50 mg/kg

4. Initial Soil Delineation Assessment Summary and Findings

On September 20 and 21, 2021, GHD Services Inc. (GHD) and EOG’s contractor Culberson Construction Energy Services (CCI), on behalf of EOG, installed sixteen (16) test pits within the suspected impacted area. Site assessment activities in the northern portion of the Site was ceased once a liner at four (4) feet bgs was discovered from a previous remediation project. Within those first 4 feet soils were non-impacted and vegetated; therefore, GHD and CCI did not agitate or disturb the soils or liner. All soil samples outside the lined area were collected from surface to (20) feet bgs. Samples were then analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8021B, Total Petroleum Hydrocarbons (TPH) by Method 8015B Modified, and chloride by EPA Method 300 by Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico. Analytical results indicated none of the soil samples exhibited benzene, BTEX, TPH or chloride concentrations above Table 1 closure criteria. Depth to groundwater was unknown during this phase of investigation.

Figure 2, Site Assessment: Soil Analytical Results Map, depicts the locations of the initial delineation samples, analytical concentrations, and the lined area with non-impacted soils in the first four (4) feet bgs located in the northern portion of the Site. Analytical results are provided in Table 1, on Figure 2, and in the Laboratory Analytical Reports provided in Attachment B.

5. nAPP2125655405 Proposed Work Plan

GHD, on behalf of EOG, proposes to excavate the areas to the following depths:

- TP-4 to one (1) foot bgs or until the soils in the first four (4) feet bgs exhibit TPH concentrations below 100 mg/kg and chloride concentrations below 600 mg/kg.
- TP-1, TP-5, TP-6, TP-8, TP-9, TP-10 and TP-16 to four (4) feet bgs or until the soils in the first four (4) feet bgs exhibit TPH concentrations below 100 mg/kg and chloride concentrations below 600 mg/kg.

The excavation in the northern portion will cease once the liner at 4 feet bgs from a previous remediation project is exposed. Sidewall samples will be collected in the unlined areas to verify TPH concentrations below 100 mg/kg and chloride concentrations below 600 mg/kg.

Confirmation samples from the bottom of the excavation will be collected by way of five (5) point composite samples. Samples collected are to ensure that soil remaining above and below four (4) feet meet the requirements set forth by NMAC 19.15.29.12 and 13 prior to the commencement of backfill activities. Sidewall confirmation samples will be collected by way of five (5) point composite samples, with one (1) sample collected for every 46.5 linear feet of the excavation sidewall when the sidewall height does not exceed four (4) feet bgs, which conforms to the requirement of no sample representing greater than two hundred (200) square feet. All confirmation samples will be taken to a certified laboratory and analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300.

Excavated soils will be transported to an NMOCD approved disposal facility for disposal. The anticipated volume of soil to be disposed of is approximately 1,070 cubic yards. The excavation will be backfilled with non-impacted soil transported to the site. The remediation will be performed within 90 days after the work plan has been approved. If confirmation soil samples exhibit benzene, BTEX, TPH and chloride concentrations below Table 1 closure criteria, 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 a new work plan will be submitted to the NMOCD for approval.

If you have any questions or comments concerning this Site Characterization and Remediation Work Plan Report, please do not hesitate to contact our Midland office at (432) 686-0086.

Sincerely,

GHD

Becky Haskell
Senior Project Manager

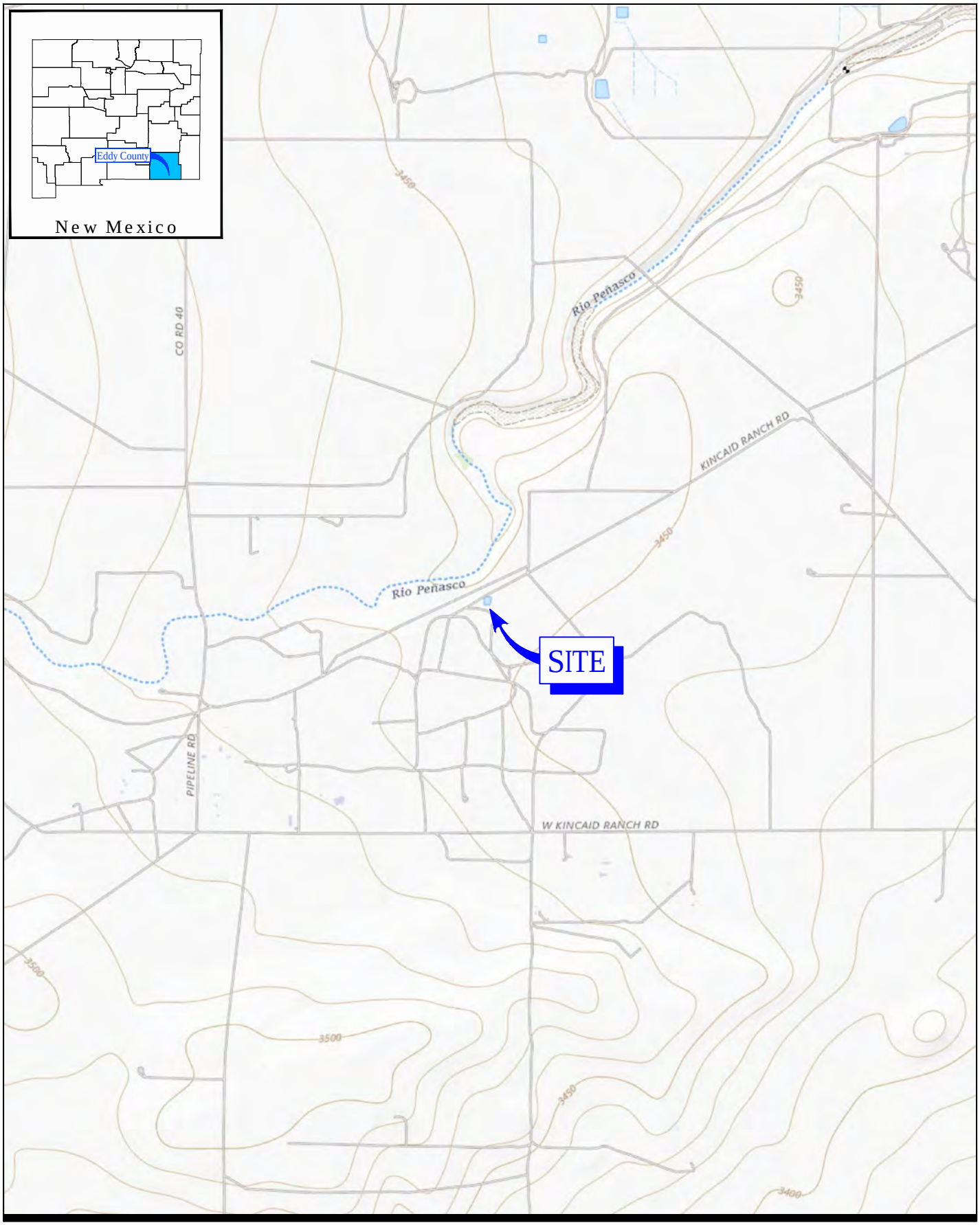
Zach H. Comino
Field Geologist

BH/ZC/1

Encl. Figure 1 – Site Location Map
Figure 2 – Site Assessment: Soil Analytical Results Map
Table 1 – Summary of Soil Analytical Data
Attachment A – Site Characterization Documentation
Attachment B – Laboratory Analytical Reports and Chain-of-Custody Documentation

cc: Chase Settle

Figures



0 1000 2000 ft

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

N

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
HORNBAKER BA **#2** BATTERY

Project No. 11228980
Date January 2022

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11228980\Digital_Design\ACAD\Figures\RPT002\11228980-GHD-0000-RPT-EN-0101_DL-002.dwg

Data Source: USGS 7.5 Minute Quad "Bond Draw and Malaga, New Mexico"
Lat/Long: 32.720982° North, 104.431683° West

Sample ID	Sample Date	Depth (feet bgs)	Benzene	BTEX	TPH Total GRO/DRO/MRO	Chloride
			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater			
			10 mg/Kg	50 mg/Kg	2,500 mg/Kg	20,000 mg/Kg
Initial Assessment Samples - Test Pits						
TP1-2	9/20/2021	2	<0.025	<0.10	1,510	1,100
TP1-6	9/20/2021	6	<0.023	<0.093	<49	680
TP1-10	9/20/2021	10	<0.025	<0.099	<49	750
TP1-12	9/20/2021	12	<0.024	<0.094	172	530
TP1-14	9/20/2021	14	<0.024	<0.095	<50	190
TP2-2	9/20/2021	2	<0.024	<0.096	<48	410
TP3-S	9/20/2021	Surface	<0.023	<0.094	<46	<60
TP3-2	9/20/2021	2	<0.025	<0.099	<48	<60
TP4-S	9/20/2021	Surface	<0.024	<0.094	150	<60
TP4-2	9/20/2021	2	<0.024	<0.094	<49	120
TP5-2	9/20/2021	2	<0.025	<0.099	<49	1,300
TP5-6	9/20/2021	6	<0.024	<0.095	<50	710
TP5-8	9/20/2021	8	<0.024	<0.095	<48	360
TP6-2	9/20/2021	2	<0.024	<0.094	<48	1,000
TP6-6	9/20/2021	6	<0.024	<0.097	<48	390
TP7-S	9/20/2021	Surface	<0.023	<0.093	<50	<60
TP7-2	9/20/2021	2	<0.023	<0.092	<48	320
TP8-2	9/20/2021	2	<0.024	<0.096	<46	1,200
TP8-6	9/20/2021	6	<0.024	<0.098	224	1,200
TP8-12	9/20/2021	12	<0.024	<0.097	<50	610
TP8-18	9/20/2021	18	<0.024	<0.097	<46	860
TP8-20	9/20/2021	20	<0.025	<0.098	<47	470
TP9-2	9/21/21	2	<0.024	<0.094	326	2,200
TP9-6	9/21/21	6	<0.023	<0.093	<46	1,500
TP9-10	9/21/21	10	<0.025	<0.099	<47	1,300
TP9-14	9/21/21	14	<0.025	<0.098	<50	950
TP9-17	9/21/21	17	<0.024	<0.098	<47	550
TP9-19	9/21/21	19	<0.024	<0.097	<49	300
TP10-2	9/21/21	2	<0.025	<0.099	<50	1,100
TP10-6	9/21/21	6	<0.025	<0.098	<48	270
TP10-8	9/21/21	8	<0.024	<0.095	<47	380
TP10-10	9/21/21	10	<0.023	<0.093	<48	75
TP11-S	9/21/21	Surface	<0.025	<0.099	<50	<60
TP-11-2	9/21/21	2	<0.025	<0.099	<48	<60
TP12-S	9/21/21	Surface	<0.024	<0.096	<50	<60
TP12-2	9/21/21	2	<0.024	<0.097	<47	<60
TP13-2	9/21/21	2	<0.024	<0.096	<50	200
TP13-4	9/21/21	4	<0.025	<0.098	<50	240
TP14-S	9/21/21	Surface	<0.025	<0.098	11	130
TP14-2	9/21/21	2	<0.023	<0.093	<47	83
TP15-S	9/21/21	Surface	<0.025	<0.099	<50	<60
TP15-2	9/21/21	2	<0.024	<0.098	<49	99
TP16-S	9/21/21	Surface	<0.024	<0.097	<49	<60
TP16-2	9/21/21	2	<0.023	<0.093	236	<60

LEGEND

4'	PROPOSED EXCAVATED AREA AND DEPTH
	LINED AREA: NON-IMPACTED FIRST 4' BGS
	TEST PIT LOCATION
DEPTH	DEPTH OF SAMPLE (FT)
BTEX	BENZENE, TOLUENE, ETHYLBENZENE & XYLENES CONCENTRATION (MG/KG)
TPH	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. PEACH SHADED CELLS EXCEED THE NMOC 19.15.29.13 (FIRST 4 FEET) TABLE 1.

0 20 40 ft

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

N

GHD

EOG RESOURCES
EDDY COUNTY, NEW MEXICO
HORNBAKER BA #2 BATTERY

SITE ASSESSMENT:
SOIL ANALYTICAL RESULTS MAP

Project No. 11228980
Date January 2022

FIGURE 2

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11228980\Digital_Design\ACAD\Figures\RPT002\11228980-GHD-0000-RPT-EN-0101_DL-002.dwg
Plot Date: 20 January 2022 2:20 PM

Data Source: Image © 2021 Google - Imagery Date: December 29, 2019
Lat/Long: 32.720982° North, 104.431683° West

Tables

Table 1
Summary of Soil Analytical Data
Hornbaker BA Battery 2
EOG Resources
Eddy County, New Mexico

Sample ID	Sample Date	Depth (feet bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	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 <50 feet Depth to Groundwater 19.15.29 NMAC									
			10 mg/Kg	---	---	---	50 mg/Kg	1,000 mg/Kg		---	2,500 mg/Kg	20,000 mg/Kg
Initial Assessment Samples - Test Pits												
TP1-2	9/20/2021	2	<0.025	<0.050	<0.050	<0.10	<0.10	<5.0	**410**	**1,100**	**1,510**	**1,100**
TP1-6	9/20/2021	6	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.7	<49	<49	**680**
TP1-10	9/20/2021	10	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.7	<49	<49	**750**
TP1-12	9/20/2021	12	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	**74**	**98**	**172**	**530**
TP1-14	9/20/2021	14	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<10	<50	<50	**190**
TP2-2	9/20/2021	2	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.6	<48	<48	**410**
TP3-S	9/20/2021	Surface	<0.023	<0.047	<0.047	<0.094	<0.094	<4.7	<9.3	<46	<46	<60
TP3-2	9/20/2021	2	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.7	<48	<48	<60
TP4-S	9/20/2021	Surface	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	**30**	**120**	**150**	<60
TP4-2	9/20/2021	2	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.8	<49	<49	**120**
TP5-2	9/20/2021	2	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.8	<49	<49	**1,300**
TP5-6	9/20/2021	6	<0.024	<0.048	<0.048	<0.095	<0.095	<4.8	<10	<50	<50	**710**
TP5-8	9/20/2021	8	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.5	<48	<48	**360**
TP6-2	9/20/2021	2	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	<9.5	<48	<48	**1,000**
TP6-6	9/20/2021	6	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.7	<48	<48	**390**
TP7-S	9/20/2021	Surface	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<10	<50	<50	<60
TP7-2	9/20/2021	2	<0.023	<0.046	<0.046	<0.092	<0.092	<4.6	<9.7	<48	<48	**320**
TP8-2	9/20/2021	2	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.2	<46	<46	**1,200**
TP8-6	9/20/2021	6	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	**64**	**160**	**224**	**1,200**
TP8-12	9/20/2021	12	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.9	<50	<50	**610**
TP8-18	9/20/2021	18	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.2	<46	<46	**860**
TP8-20	9/20/2021	20	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.5	<47	<47	**470**
TP9-2	9/21/21	2	<0.024	<0.047	<0.047	<0.094	<0.094	<4.7	**56**	**270**	**326**	**2,200**
TP9-6	9/21/21	6	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<9.2	<46	<46	**1,500**
TP9-10	9/21/21	10	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.4	<47	<47	**1,300**
TP9-14	9/21/21	14	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.9	<50	<50	**950**
TP9-17	9/21/21	17	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.4	<47	<47	**550**
TP9-19	9/21/21	19	<0.024	<0.049	<0.049	<0.097	<0.097	<4.9	<9.8	<49	<49	**300**
TP10-2	9/21/21	2	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<10	<50	<50	**1,100**

Table 1
Summary of Soil Analytical Data
Hornbaker BA Battery 2
EOG Resources
Eddy County, New Mexico

Sample ID	Sample Date	Depth (feet bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	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 <50 feet Depth to Groundwater 19.15.29 NMAC									
			10 mg/Kg	---	---	---	50 mg/Kg	1,000 mg/Kg		---	2,500 mg/Kg	20,000 mg/Kg
TP10-6	9/21/21	6	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<9.6	<48	<48	**270**
TP10-8	9/21/21	8	<0.024	<0.047	<0.047	<0.095	<0.095	<4.7	<9.4	<47	<47	**380**
TP10-10	9/21/21	10	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	<9.7	<48	<48	**75**
TP11-S	9/21/21	Surface	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.9	<50	<50	<60
TP-11-2	9/21/21	2	<0.025	<0.050	<0.050	<0.099	<0.099	<5.0	<9.6	<48	<48	<60
TP12-S	9/21/21	Surface	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<50	<50	<60
TP12-2	9/21/21	2	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.3	<47	<47	<60
TP13-2	9/21/21	2	<0.024	<0.048	<0.048	<0.096	<0.096	<4.8	<9.9	<50	<50	**200**
TP13-4	9/21/21	4	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	<10	<50	<50	**240**
TP14-S	9/21/21	Surface	<0.025	<0.049	<0.049	<0.098	<0.098	<4.9	**11**	<48	**11**	**130**
TP14-2	9/21/21	2	<0.023	<0.046	<0.046	<0.093	<0.093	<4.6	<9.5	<47	<47	**83**
TP15-S	9/21/21	Surface	<0.025	<0.049	<0.049	<0.099	<0.099	<4.9	<9.9	<50	<50	<60
TP15-2	9/21/21	2	<0.024	<0.049	<0.049	<0.098	<0.098	<4.9	<9.9	<49	<49	**99**
TP16-S	9/21/21	Surface	<0.024	<0.048	<0.048	<0.097	<0.097	<4.8	<9.7	<49	<49	<60
TP16-2	9/21/21	2	<0.023	<0.047	<0.047	<0.093	<0.093	<4.7	**66**	**170**	**236**	<60

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.
6. GRO/DRO/MRO = Gasoline/Diesel/Motor Oil
7. J - the target analytes was positively identified below the quantitation limit and above the detection limit.

Peach shaded cells indicate analytical samples that exceed the NMOC 19.15.29.13 Table 1

Yellow shaded cells indicate analytical samples that exceed the NMOC 19.15.29.12 Table 1

~~B-BH-2~~ Sample Point Excavated

Attachment A
Site Characterization Documentation

Hornbaker BA #2

Distance from Depth to Water Well

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Nix Curtis BH Battery

PROJECT NUMBER: 11229322

CLIENT: EOG Resources

LOCATION: Artesia, New Mexico

DRILLING CONTRACTOR: White Drilling Company, Inc

HOLE DESIGNATION: DTW Well

DATE COMPLETED: December 14, 2021

DRILLING METHOD: Air Rotary/Split Spoons

FIELD PERSONNEL: L. Mullins

DRILLER: B. Adkins

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH BGS	SOIL BORING	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE CHLORIDE (mg/kg)
0	CL-SILTY CLAY, with sand, light brown, dry						
12.00	CL-SILTY CLAY, light brown, dry	12.00	Backfilled With Cement Grout				
35.00	CL-CLAY, with silt and caliche interbedded	35.00					
38.00	CL-CLAY, with fine to medium grained sand, light brown, slightly moist	38.00					
60.00	CL-SILTY CLAY, with sand and rock interbedded throughout, light brown, slightly damp	60.00					

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

File: I:\LOG DATABASE\8-CHAR\11-----\1122---\11229322 NIX\11229322-CO.GPJ Library File: GHD_ENVIRO_V06.GLB Report: OVERBURDEN LOG Date: 1/13/22

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Nix Curtis BH Battery
PROJECT NUMBER: 11229322
CLIENT: EOG Resources
LOCATION: Artesia, New Mexico
DRILLING CONTRACTOR: White Drilling Company, Inc

HOLE DESIGNATION: DTW Well
DATE COMPLETED: December 14, 2021
DRILLING METHOD: Air Rotary/Split Spoons
FIELD PERSONNEL: L. Mullins
DRILLER: B. Adkins

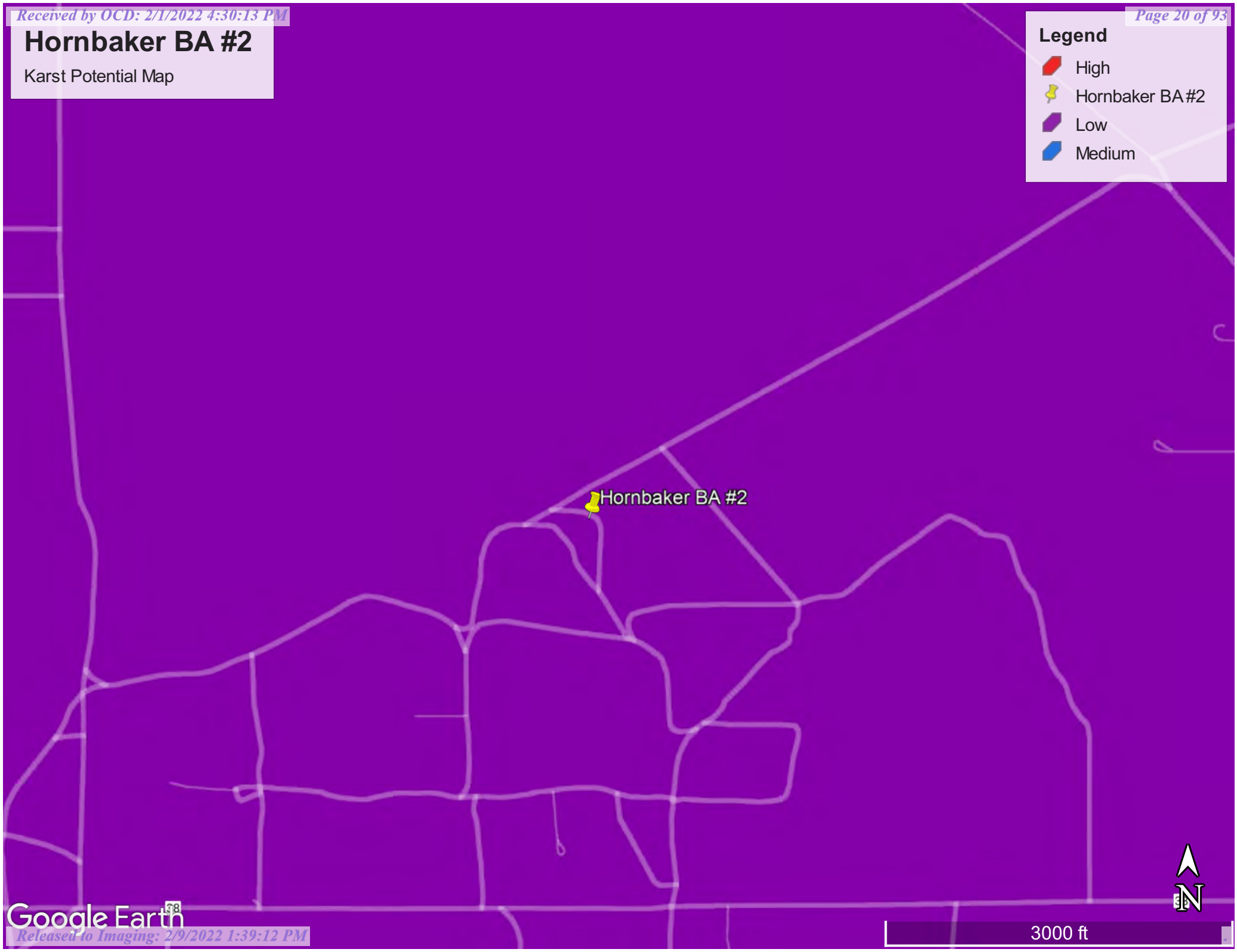
DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	DEPTH BGS	SOIL BORING	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (%)	SAMPLE CHLORIDE (mg/kg)
70	SP-SAND, with silt, fine to medium grained, light brown, slightly damp	70.00					
107.50	END OF BOREHOLE @ 107.50ft BGS DTW Well was left open for 72 hours to determine presence or absence of groundwater by utilization of a water level meter. No groundwater was present.						

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

File: I:\LOG DATABASE\8-CHAR\11-----\1122---\11229322 NIX\11229322-CO.GPJ Library File: GHD_ENVIRO_V06.GLB Report: OVERBURDEN LOG Date: 1/13/22

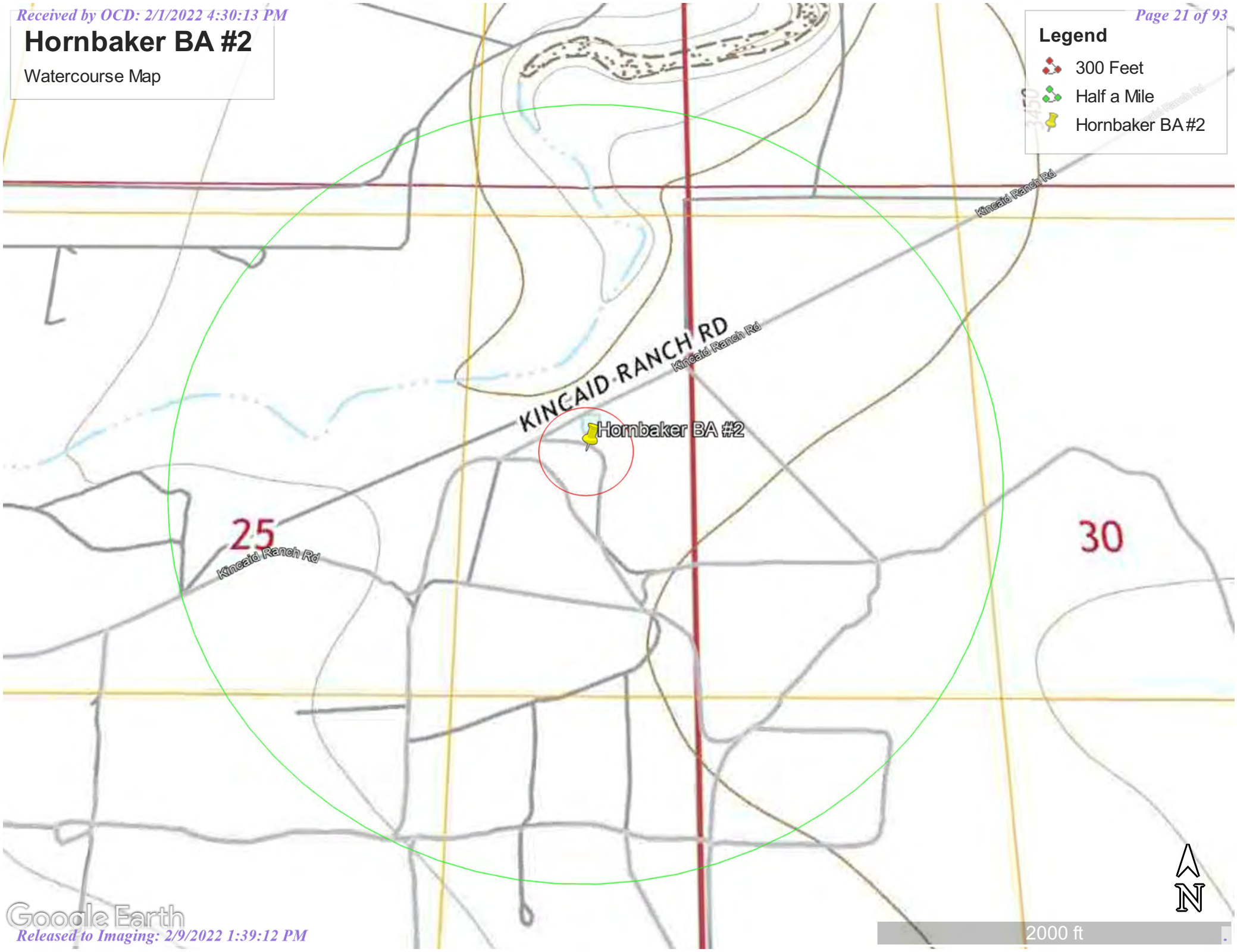
Hornbaker BA #2

Karst Potential Map

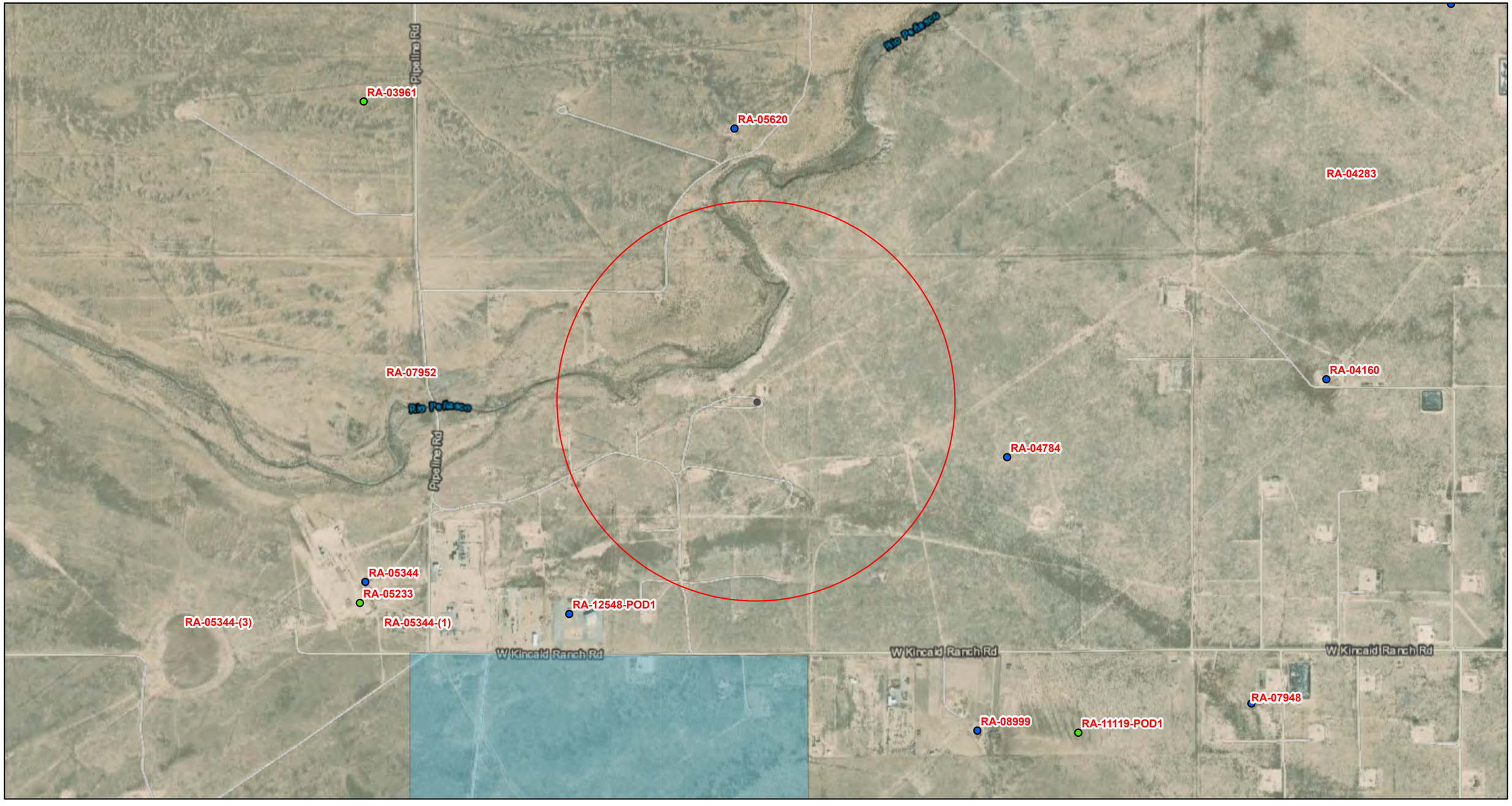


Hornbaker BA #2

Watercourse Map



Hornbaker BA #2



1/17/2022, 9:44:30 AM

GIS WATERS PODs
- Active
- Pending

OSE District Boundary

Water Right Regulations
- Closure Area

New Mexico State Trust Lands
- Both Estates
- SiteBoundaries

1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Esri, HERE, iPC, U.S. Department of Energy Office of Legacy Management, Esri, HERE, Garmin, iPC, Maxar

National Flood Hazard Layer FIRMette

FEMA

104°26'13"W 32°43'30"N

104°25'36"W 32°43'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 1/17/2022 at 10:49 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.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Hornbaker BA #2

January 17, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Attachment B
Laboratory Analytical Reports and Chain-of-Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

October 14, 2021

Tom Larson

GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX

RE: Hornbaker BA 2 OrderNo.: 2109B81

Dear Tom Larson:

Hall Environmental Analysis Laboratory received 28 sample(s) on 9/22/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-001 **Matrix:** SOIL

Client Sample ID: TP1-2
Collection Date: 9/20/2021 7:50:00 AM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	1100	60		mg/Kg	20	9/27/2021 12:03:05 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	410	98		mg/Kg	10	9/24/2021 3:56:51 PM	62781
Motor Oil Range Organics (MRO)	1100	490		mg/Kg	10	9/24/2021 3:56:51 PM	62781
Surr: DNOP	0	70-130	S	%Rec	10	9/24/2021 3:56:51 PM	62781
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/24/2021 2:04:27 AM	62766
Surr: BFB	99.0	70-130		%Rec	1	9/24/2021 2:04:27 AM	62766
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 2:04:27 AM	62766
Toluene	ND	0.050		mg/Kg	1	9/24/2021 2:04:27 AM	62766
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2021 2:04:27 AM	62766
Xylenes, Total	ND	0.10		mg/Kg	1	9/24/2021 2:04:27 AM	62766
Surr: 4-Bromofluorobenzene	87.0	70-130		%Rec	1	9/24/2021 2:04:27 AM	62766

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP1-6
Project: Hornbaker BA 2
Collection Date: 9/20/2021 8:05:00 AM
Lab ID: 2109B81-002 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**JMT**
Chloride	680	60		mg/Kg	20	10/4/2021 7:38:43 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/1/2021 6:25:46 PM	62957
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/1/2021 6:25:46 PM	62957
Surr: DNOP	77.9	70-130		%Rec	1	10/1/2021 6:25:46 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/4/2021 9:45:40 AM	62954
Surr: BFB	161	70-130	S	%Rec	1	10/4/2021 9:45:40 AM	62954
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023		mg/Kg	1	10/4/2021 9:45:40 AM	62954
Toluene	ND	0.047		mg/Kg	1	10/4/2021 9:45:40 AM	62954
Ethylbenzene	ND	0.047		mg/Kg	1	10/4/2021 9:45:40 AM	62954
Xylenes, Total	ND	0.093		mg/Kg	1	10/4/2021 9:45:40 AM	62954
Surr: 4-Bromofluorobenzene	136	70-130	S	%Rec	1	10/4/2021 9:45:40 AM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP1-10
Project: Hornbaker BA 2
Collection Date: 9/20/2021 8:20:00 AM
Lab ID: 2109B81-003 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	750	60		mg/Kg	20	10/4/2021 8:15:56 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/1/2021 7:36:39 PM	62957
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/1/2021 7:36:39 PM	62957
Surr: DNOP	80.4	70-130		%Rec	1	10/1/2021 7:36:39 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2021 10:56:09 AM	62954
Surr: BFB	103	70-130		%Rec	1	10/4/2021 10:56:09 AM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/4/2021 10:56:09 AM	62954
Toluene	ND	0.049		mg/Kg	1	10/4/2021 10:56:09 AM	62954
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2021 10:56:09 AM	62954
Xylenes, Total	ND	0.099		mg/Kg	1	10/4/2021 10:56:09 AM	62954
Surr: 4-Bromofluorobenzene	85.2	70-130		%Rec	1	10/4/2021 10:56:09 AM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP1-12
Project: Hornbaker BA 2
Collection Date: 9/20/2021 8:30:00 AM
Lab ID: 2109B81-004 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	530	60		mg/Kg	20	10/4/2021 8:53:10 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	74	9.8		mg/Kg	1	10/4/2021 11:12:49 PM	62957
Motor Oil Range Organics (MRO)	98	49		mg/Kg	1	10/4/2021 11:12:49 PM	62957
Surr: DNOP	77.1	70-130		%Rec	1	10/4/2021 11:12:49 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/4/2021 12:07:16 PM	62954
Surr: BFB	102	70-130		%Rec	1	10/4/2021 12:07:16 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/4/2021 12:07:16 PM	62954
Toluene	ND	0.047		mg/Kg	1	10/4/2021 12:07:16 PM	62954
Ethylbenzene	ND	0.047		mg/Kg	1	10/4/2021 12:07:16 PM	62954
Xylenes, Total	ND	0.094		mg/Kg	1	10/4/2021 12:07:16 PM	62954
Surr: 4-Bromofluorobenzene	84.5	70-130		%Rec	1	10/4/2021 12:07:16 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP1-14
Project: Hornbaker BA 2
Collection Date: 9/20/2021 8:45:00 AM
Lab ID: 2109B81-005 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	190	60		mg/Kg	20	10/4/2021 9:05:35 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/1/2021 8:24:01 PM	62957
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/1/2021 8:24:01 PM	62957
Surr: DNOP	81.7	70-130		%Rec	1	10/1/2021 8:24:01 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/4/2021 12:30:50 PM	62954
Surr: BFB	106	70-130		%Rec	1	10/4/2021 12:30:50 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/4/2021 12:30:50 PM	62954
Toluene	ND	0.048		mg/Kg	1	10/4/2021 12:30:50 PM	62954
Ethylbenzene	ND	0.048		mg/Kg	1	10/4/2021 12:30:50 PM	62954
Xylenes, Total	ND	0.095		mg/Kg	1	10/4/2021 12:30:50 PM	62954
Surr: 4-Bromofluorobenzene	87.6	70-130		%Rec	1	10/4/2021 12:30:50 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP2-2
Project: Hornbaker BA 2
Collection Date: 9/20/2021 9:10:00 AM
Lab ID: 2109B81-006 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	410	60		mg/Kg	20	9/27/2021 12:15:30 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/25/2021 4:37:42 AM	62781
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/25/2021 4:37:42 AM	62781
Surr: DNOP	92.0	70-130		%Rec	1	9/25/2021 4:37:42 AM	62781
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 2:28:07 AM	62766
Surr: BFB	102	70-130		%Rec	1	9/24/2021 2:28:07 AM	62766
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 2:28:07 AM	62766
Toluene	ND	0.048		mg/Kg	1	9/24/2021 2:28:07 AM	62766
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 2:28:07 AM	62766
Xylenes, Total	ND	0.096		mg/Kg	1	9/24/2021 2:28:07 AM	62766
Surr: 4-Bromofluorobenzene	89.0	70-130		%Rec	1	9/24/2021 2:28:07 AM	62766

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-011 **Matrix:** SOIL

Client Sample ID: TP3-S
Collection Date: 9/20/2021 10:20:00 AM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/27/2021 12:27:54 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/29/2021 2:43:26 PM	62781
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/29/2021 2:43:26 PM	62781
Surr: DNOP	63.0	70-130	S	%Rec	1	9/29/2021 2:43:26 PM	62781
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/24/2021 2:51:47 AM	62766
Surr: BFB	99.3	70-130		%Rec	1	9/24/2021 2:51:47 AM	62766
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	9/24/2021 2:51:47 AM	62766
Toluene	ND	0.047		mg/Kg	1	9/24/2021 2:51:47 AM	62766
Ethylbenzene	ND	0.047		mg/Kg	1	9/24/2021 2:51:47 AM	62766
Xylenes, Total	ND	0.094		mg/Kg	1	9/24/2021 2:51:47 AM	62766
Surr: 4-Bromofluorobenzene	87.6	70-130		%Rec	1	9/24/2021 2:51:47 AM	62766

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-012 **Matrix:** SOIL

Client Sample ID: TP3-2
Collection Date: 9/20/2021 10:35:00 AM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/27/2021 12:40:19 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/25/2021 5:02:06 AM	62781
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/25/2021 5:02:06 AM	62781
Surr: DNOP	74.3	70-130		%Rec	1	9/25/2021 5:02:06 AM	62781
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/24/2021 3:15:30 AM	62766
Surr: BFB	102	70-130		%Rec	1	9/24/2021 3:15:30 AM	62766
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 3:15:30 AM	62766
Toluene	ND	0.050		mg/Kg	1	9/24/2021 3:15:30 AM	62766
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2021 3:15:30 AM	62766
Xylenes, Total	ND	0.099		mg/Kg	1	9/24/2021 3:15:30 AM	62766
Surr: 4-Bromofluorobenzene	91.2	70-130		%Rec	1	9/24/2021 3:15:30 AM	62766

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-013 **Matrix:** SOIL

Client Sample ID: TP4-S
Collection Date: 9/20/2021 10:40:00 AM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/27/2021 1:17:34 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	30	9.8		mg/Kg	1	9/29/2021 2:30:58 PM	62781
Motor Oil Range Organics (MRO)	120	49		mg/Kg	1	9/29/2021 2:30:58 PM	62781
Surr: DNOP	84.9	70-130		%Rec	1	9/29/2021 2:30:58 PM	62781
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/24/2021 3:39:11 AM	62766
Surr: BFB	98.0	70-130		%Rec	1	9/24/2021 3:39:11 AM	62766
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 3:39:11 AM	62766
Toluene	ND	0.047		mg/Kg	1	9/24/2021 3:39:11 AM	62766
Ethylbenzene	ND	0.047		mg/Kg	1	9/24/2021 3:39:11 AM	62766
Xylenes, Total	ND	0.094		mg/Kg	1	9/24/2021 3:39:11 AM	62766
Surr: 4-Bromofluorobenzene	86.1	70-130		%Rec	1	9/24/2021 3:39:11 AM	62766

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP4-2
Project: Hornbaker BA 2
Collection Date: 9/20/2021 10:50:00 AM
Lab ID: 2109B81-014 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	120	60		mg/Kg	20	9/27/2021 1:29:59 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/25/2021 5:26:21 AM	62781
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/25/2021 5:26:21 AM	62781
Surr: DNOP	86.3	70-130		%Rec	1	9/25/2021 5:26:21 AM	62781
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/24/2021 4:02:38 AM	62766
Surr: BFB	101	70-130		%Rec	1	9/24/2021 4:02:38 AM	62766
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 4:02:38 AM	62766
Toluene	ND	0.047		mg/Kg	1	9/24/2021 4:02:38 AM	62766
Ethylbenzene	ND	0.047		mg/Kg	1	9/24/2021 4:02:38 AM	62766
Xylenes, Total	ND	0.094		mg/Kg	1	9/24/2021 4:02:38 AM	62766
Surr: 4-Bromofluorobenzene	89.3	70-130		%Rec	1	9/24/2021 4:02:38 AM	62766

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-015 **Matrix:** SOIL

Client Sample ID: TP5-2
Collection Date: 9/20/2021 11:00:00 AM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	1300	60		mg/Kg	20	9/27/2021 1:42:23 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/25/2021 5:50:41 AM	62781
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/25/2021 5:50:41 AM	62781
Surr: DNOP	100	70-130		%Rec	1	9/25/2021 5:50:41 AM	62781
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/24/2021 4:26:08 AM	62766
Surr: BFB	101	70-130		%Rec	1	9/24/2021 4:26:08 AM	62766
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 4:26:08 AM	62766
Toluene	ND	0.050		mg/Kg	1	9/24/2021 4:26:08 AM	62766
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2021 4:26:08 AM	62766
Xylenes, Total	ND	0.099		mg/Kg	1	9/24/2021 4:26:08 AM	62766
Surr: 4-Bromofluorobenzene	88.8	70-130		%Rec	1	9/24/2021 4:26:08 AM	62766

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-016 **Matrix:** SOIL

Client Sample ID: TP5-6
Collection Date: 9/20/2021 11:10:00 AM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	710	61		mg/Kg	20	9/27/2021 1:54:48 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/24/2021 11:11:41 AM	62799
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 11:11:41 AM	62799
Surr: DNOP	103	70-130		%Rec	1	9/24/2021 11:11:41 AM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 1:46:26 PM	62767
Surr: BFB	101	70-130		%Rec	1	9/24/2021 1:46:26 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 1:46:26 PM	62767
Toluene	ND	0.048		mg/Kg	1	9/24/2021 1:46:26 PM	62767
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 1:46:26 PM	62767
Xylenes, Total	ND	0.095		mg/Kg	1	9/24/2021 1:46:26 PM	62767
Surr: 4-Bromofluorobenzene	90.1	70-130		%Rec	1	9/24/2021 1:46:26 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP5-8
Project: Hornbaker BA 2
Collection Date: 9/20/2021 11:20:00 AM
Lab ID: 2109B81-017 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	360	60		mg/Kg	20	10/4/2021 9:42:48 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	10/1/2021 8:47:42 PM	62957
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/1/2021 8:47:42 PM	62957
Surr: DNOP	83.4	70-130		%Rec	1	10/1/2021 8:47:42 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/4/2021 12:54:33 PM	62954
Surr: BFB	106	70-130		%Rec	1	10/4/2021 12:54:33 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/4/2021 12:54:33 PM	62954
Toluene	ND	0.047		mg/Kg	1	10/4/2021 12:54:33 PM	62954
Ethylbenzene	ND	0.047		mg/Kg	1	10/4/2021 12:54:33 PM	62954
Xylenes, Total	ND	0.095		mg/Kg	1	10/4/2021 12:54:33 PM	62954
Surr: 4-Bromofluorobenzene	87.7	70-130		%Rec	1	10/4/2021 12:54:33 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-018 **Matrix:** SOIL

Client Sample ID: TP6-2
Collection Date: 9/20/2021 12:40:00 PM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	1000	61		mg/Kg	20	9/27/2021 2:07:12 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/27/2021 12:40:47 PM	62799
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/27/2021 12:40:47 PM	62799
Surr: DNOP	75.8	70-130		%Rec	1	9/27/2021 12:40:47 PM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/24/2021 2:56:55 PM	62767
Surr: BFB	102	70-130		%Rec	1	9/24/2021 2:56:55 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 2:56:55 PM	62767
Toluene	ND	0.047		mg/Kg	1	9/24/2021 2:56:55 PM	62767
Ethylbenzene	ND	0.047		mg/Kg	1	9/24/2021 2:56:55 PM	62767
Xylenes, Total	ND	0.094		mg/Kg	1	9/24/2021 2:56:55 PM	62767
Surr: 4-Bromofluorobenzene	90.4	70-130		%Rec	1	9/24/2021 2:56:55 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-019 **Matrix:** SOIL

Client Sample ID: TP6-6
Collection Date: 9/20/2021 12:50:00 PM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	390	60		mg/Kg	20	9/27/2021 2:19:37 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/24/2021 11:35:58 AM	62799
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2021 11:35:58 AM	62799
Surr: DNOP	90.7	70-130		%Rec	1	9/24/2021 11:35:58 AM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 4:07:51 PM	62767
Surr: BFB	100	70-130		%Rec	1	9/24/2021 4:07:51 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 4:07:51 PM	62767
Toluene	ND	0.048		mg/Kg	1	9/24/2021 4:07:51 PM	62767
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 4:07:51 PM	62767
Xylenes, Total	ND	0.097		mg/Kg	1	9/24/2021 4:07:51 PM	62767
Surr: 4-Bromofluorobenzene	88.7	70-130		%Rec	1	9/24/2021 4:07:51 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-021 **Matrix:** SOIL

Client Sample ID: TP7-S
Collection Date: 9/20/2021 1:10:00 PM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/27/2021 2:32:02 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/24/2021 12:00:16 PM	62799
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 12:00:16 PM	62799
Surr: DNOP	92.4	70-130		%Rec	1	9/24/2021 12:00:16 PM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/24/2021 4:31:36 PM	62767
Surr: BFB	103	70-130		%Rec	1	9/24/2021 4:31:36 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	9/24/2021 4:31:36 PM	62767
Toluene	ND	0.046		mg/Kg	1	9/24/2021 4:31:36 PM	62767
Ethylbenzene	ND	0.046		mg/Kg	1	9/24/2021 4:31:36 PM	62767
Xylenes, Total	ND	0.093		mg/Kg	1	9/24/2021 4:31:36 PM	62767
Surr: 4-Bromofluorobenzene	89.9	70-130		%Rec	1	9/24/2021 4:31:36 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-022 **Matrix:** SOIL

Client Sample ID: TP7-2
Collection Date: 9/20/2021 1:20:00 PM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	320	60		mg/Kg	20	9/27/2021 2:44:27 PM	62839
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/24/2021 12:24:26 PM	62799
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2021 12:24:26 PM	62799
Surr: DNOP	94.9	70-130		%Rec	1	9/24/2021 12:24:26 PM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/24/2021 4:55:13 PM	62767
Surr: BFB	103	70-130		%Rec	1	9/24/2021 4:55:13 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	9/24/2021 4:55:13 PM	62767
Toluene	ND	0.046		mg/Kg	1	9/24/2021 4:55:13 PM	62767
Ethylbenzene	ND	0.046		mg/Kg	1	9/24/2021 4:55:13 PM	62767
Xylenes, Total	ND	0.092		mg/Kg	1	9/24/2021 4:55:13 PM	62767
Surr: 4-Bromofluorobenzene	90.0	70-130		%Rec	1	9/24/2021 4:55:13 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-023 **Matrix:** SOIL

Client Sample ID: TP8-2
Collection Date: 9/20/2021 1:40:00 PM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	1200	60		mg/Kg	20	9/28/2021 10:16:31 AM	62867
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/24/2021 12:48:43 PM	62799
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/24/2021 12:48:43 PM	62799
Surr: DNOP	99.1	70-130		%Rec	1	9/24/2021 12:48:43 PM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 5:18:45 PM	62767
Surr: BFB	102	70-130		%Rec	1	9/24/2021 5:18:45 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 5:18:45 PM	62767
Toluene	ND	0.048		mg/Kg	1	9/24/2021 5:18:45 PM	62767
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 5:18:45 PM	62767
Xylenes, Total	ND	0.096		mg/Kg	1	9/24/2021 5:18:45 PM	62767
Surr: 4-Bromofluorobenzene	89.6	70-130		%Rec	1	9/24/2021 5:18:45 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109B81-024 **Matrix:** SOIL

Client Sample ID: TP8-6
Collection Date: 9/20/2021 1:50:00 PM
Received Date: 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	1200	60		mg/Kg	20	9/28/2021 10:53:45 AM	62867
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	64	9.7		mg/Kg	1	9/27/2021 7:05:57 PM	62799
Motor Oil Range Organics (MRO)	160	48		mg/Kg	1	9/27/2021 7:05:57 PM	62799
Surr: DNOP	89.3	70-130		%Rec	1	9/27/2021 7:05:57 PM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 6:53:03 PM	62767
Surr: BFB	102	70-130		%Rec	1	9/24/2021 6:53:03 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 6:53:03 PM	62767
Toluene	ND	0.049		mg/Kg	1	9/24/2021 6:53:03 PM	62767
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 6:53:03 PM	62767
Xylenes, Total	ND	0.098		mg/Kg	1	9/24/2021 6:53:03 PM	62767
Surr: 4-Bromofluorobenzene	89.6	70-130		%Rec	1	9/24/2021 6:53:03 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP8-12
Project: Hornbaker BA 2
Collection Date: 9/20/2021 2:10:00 PM
Lab ID: 2109B81-025 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	610	60		mg/Kg	20	9/28/2021 11:06:10 AM	62867
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/24/2021 1:37:15 PM	62799
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 1:37:15 PM	62799
Surr: DNOP	98.3	70-130		%Rec	1	9/24/2021 1:37:15 PM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 7:16:33 PM	62767
Surr: BFB	103	70-130		%Rec	1	9/24/2021 7:16:33 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 7:16:33 PM	62767
Toluene	ND	0.048		mg/Kg	1	9/24/2021 7:16:33 PM	62767
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 7:16:33 PM	62767
Xylenes, Total	ND	0.097		mg/Kg	1	9/24/2021 7:16:33 PM	62767
Surr: 4-Bromofluorobenzene	91.1	70-130		%Rec	1	9/24/2021 7:16:33 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP8-18
Project: Hornbaker BA 2
Collection Date: 9/20/2021 2:50:00 PM
Lab ID: 2109B81-027 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**JMT**
Chloride	860	61		mg/Kg	20	10/4/2021 9:55:13 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	10/1/2021 9:11:17 PM	62957
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/1/2021 9:11:17 PM	62957
Surr: DNOP	78.9	70-130		%Rec	1	10/1/2021 9:11:17 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	10/4/2021 1:18:27 PM	62954
Surr: BFB	108	70-130		%Rec	1	10/4/2021 1:18:27 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	10/4/2021 1:18:27 PM	62954
Toluene	ND	0.048		mg/Kg	1	10/4/2021 1:18:27 PM	62954
Ethylbenzene	ND	0.048		mg/Kg	1	10/4/2021 1:18:27 PM	62954
Xylenes, Total	ND	0.097		mg/Kg	1	10/4/2021 1:18:27 PM	62954
Surr: 4-Bromofluorobenzene	88.5	70-130		%Rec	1	10/4/2021 1:18:27 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109B81**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP8-20
Project: Hornbaker BA 2
Collection Date: 9/20/2021 3:05:00 PM
Lab ID: 2109B81-028 **Matrix:** SOIL **Received Date:** 9/22/2021 7:10:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	490	60		mg/Kg	20	9/28/2021 11:18:35 AM	62867
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/24/2021 2:01:32 PM	62799
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/24/2021 2:01:32 PM	62799
Surr: DNOP	98.5	70-130		%Rec	1	9/24/2021 2:01:32 PM	62799
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 7:40:02 PM	62767
Surr: BFB	102	70-130		%Rec	1	9/24/2021 7:40:02 PM	62767
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 7:40:02 PM	62767
Toluene	ND	0.049		mg/Kg	1	9/24/2021 7:40:02 PM	62767
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 7:40:02 PM	62767
Xylenes, Total	ND	0.098		mg/Kg	1	9/24/2021 7:40:02 PM	62767
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	9/24/2021 7:40:02 PM	62767

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **MB-62839** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **62839** RunNo: **81597**
Prep Date: **9/27/2021** Analysis Date: **9/27/2021** SeqNo: **2883462** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62839** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **62839** RunNo: **81597**
Prep Date: **9/27/2021** Analysis Date: **9/27/2021** SeqNo: **2883463** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	90	110			

Sample ID: **MB-62867** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **62867** RunNo: **81605**
Prep Date: **9/28/2021** Analysis Date: **9/28/2021** SeqNo: **2885988** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62867** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **62867** RunNo: **81605**
Prep Date: **9/28/2021** Analysis Date: **9/28/2021** SeqNo: **2885989** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.1	90	110			

Sample ID: **MB-62988** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **62988** RunNo: **81780**
Prep Date: **10/2/2021** Analysis Date: **10/4/2021** SeqNo: **2892413** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62988** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **62988** RunNo: **81780**
Prep Date: **10/2/2021** Analysis Date: **10/4/2021** SeqNo: **2892414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **LCS-62781** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **62781** RunNo: **81579**
Prep Date: **9/23/2021** Analysis Date: **9/25/2021** SeqNo: **2883289** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.5	68.9	135			
Surr: DNOP	4.9		5.000		98.3	70	130			

Sample ID: **LCS-62799** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **62799** RunNo: **81579**
Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2883290** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.0	68.9	135			
Surr: DNOP	4.6		5.000		91.3	70	130			

Sample ID: **MB-62781** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **62781** RunNo: **81579**
Prep Date: **9/23/2021** Analysis Date: **9/25/2021** SeqNo: **2883292** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	70	130			

Sample ID: **MB-62799** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **62799** RunNo: **81579**
Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2883293** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		100	70	130			

Sample ID: **2109B81-018AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **TP6-2** Batch ID: **62799** RunNo: **81594**
Prep Date: **9/23/2021** Analysis Date: **9/27/2021** SeqNo: **2883969** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	9.6	47.80	0	90.7	39.3	155			
Surr: DNOP	3.7		4.780		76.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **2109B81-018AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **TP6-2** Batch ID: **62799** RunNo: **81594**

Prep Date: **9/23/2021** Analysis Date: **9/27/2021** SeqNo: **2883970** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	8.9	44.60	0	95.8	39.3	155	1.45	23.4	
Surr: DNOP	4.2		4.460		94.5	70	130	0	0	

Sample ID: **MB-62957** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **62957** RunNo: **81750**

Prep Date: **9/30/2021** Analysis Date: **10/1/2021** SeqNo: **2890617** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.0	70	130			

Sample ID: **LCS-62957** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **62957** RunNo: **81750**

Prep Date: **9/30/2021** Analysis Date: **10/1/2021** SeqNo: **2890618** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.7	68.9	135			
Surr: DNOP	4.9		5.000		98.9	70	130			

Sample ID: **2109B81-002AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **TP1-6** Batch ID: **62957** RunNo: **81750**

Prep Date: **9/30/2021** Analysis Date: **10/1/2021** SeqNo: **2890626** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.7	48.50	0	77.7	39.3	155			
Surr: DNOP	3.4		4.850		69.7	70	130			S

Sample ID: **2109B81-002AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **TP1-6** Batch ID: **62957** RunNo: **81750**

Prep Date: **9/30/2021** Analysis Date: **10/1/2021** SeqNo: **2890640** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	9.6	47.76	0	85.1	39.3	155	7.51	23.4	
Surr: DNOP	3.6		4.776		75.3	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **MB-63053**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **63053**	RunNo: **81862**
Prep Date: **10/5/2021**	Analysis Date: **10/9/2021**	SeqNo: **2900885** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.9	70	130			

Sample ID: **LCS-63053**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **63053**	RunNo: **81862**
Prep Date: **10/5/2021**	Analysis Date: **10/9/2021**	SeqNo: **2900886** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.5		5.000		111	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **mb-62766**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **62766**	RunNo: **81527**
Prep Date: **9/22/2021**	Analysis Date: **9/23/2021**	SeqNo: **2880290** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	70	130			

Sample ID: **lcs-62766**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **62766**	RunNo: **81527**
Prep Date: **9/22/2021**	Analysis Date: **9/23/2021**	SeqNo: **2880291** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	118	78.6	131			
Surr: BFB	1100		1000		115	70	130			

Sample ID: **mb-62767**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **62767**	RunNo: **81560**
Prep Date: **9/22/2021**	Analysis Date: **9/24/2021**	SeqNo: **2882088** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		105	70	130			

Sample ID: **lcs-62767**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **62767**	RunNo: **81560**
Prep Date: **9/22/2021**	Analysis Date: **9/24/2021**	SeqNo: **2882089** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	78.6	131			
Surr: BFB	1200		1000		115	70	130			

Sample ID: **2109b81-016ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **TP5-6**	Batch ID: **62767**	RunNo: **81560**
Prep Date: **9/22/2021**	Analysis Date: **9/24/2021**	SeqNo: **2882091** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	24.06	0	110	61.3	114			
Surr: BFB	1100		962.5		110	70	130			

Sample ID: **2109b81-016amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **TP5-6**	Batch ID: **62767**	RunNo: **81560**
Prep Date: **9/22/2021**	Analysis Date: **9/24/2021**	SeqNo: **2882092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **2109b81-016amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **TP5-6** Batch ID: **62767** RunNo: **81560**

Prep Date: **9/22/2021** Analysis Date: **9/24/2021** SeqNo: **2882092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.7	23.50	0	111	61.3	114	1.00	20	
Surr: BFB	1100		939.8		114	70	130	0	0	

Sample ID: **mb-62954** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891593** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	70	130			

Sample ID: **lcs-62954** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891594** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	78.6	131			
Surr: BFB	1100		1000		110	70	130			

Sample ID: **2109b81-002ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **TP1-6** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891596** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	23.88	0	108	61.3	114			
Surr: BFB	1100		955.1		118	70	130			

Sample ID: **2109b81-002amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **TP1-6** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891597** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.7	23.67	0	108	61.3	114	1.08	20	
Surr: BFB	1100		947.0		114	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **mb-62766**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **62766**	RunNo: **81527**
Prep Date: **9/22/2021**	Analysis Date: **9/23/2021**	SeqNo: **2880326** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		89.5	70	130			

Sample ID: **LCS-62766**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **62766**	RunNo: **81527**
Prep Date: **9/22/2021**	Analysis Date: **9/23/2021**	SeqNo: **2880327** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	94.6	80	120			
Toluene	0.96	0.050	1.000	0	96.2	80	120			
Ethylbenzene	0.97	0.050	1.000	0	96.7	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.4	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.3	70	130			

Sample ID: **mb-62767**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **62767**	RunNo: **81560**
Prep Date: **9/22/2021**	Analysis Date: **9/24/2021**	SeqNo: **2882133** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.93		1.000		93.3	70	130			

Sample ID: **LCS-62767**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **62767**	RunNo: **81560**
Prep Date: **9/22/2021**	Analysis Date: **9/24/2021**	SeqNo: **2882134** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.4	80	120			
Toluene	0.93	0.050	1.000	0	92.7	80	120			
Ethylbenzene	0.92	0.050	1.000	0	92.4	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.9	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		94.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **2109b81-018ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **TP6-2** Batch ID: **62767** RunNo: **81560**

Prep Date: **9/22/2021** Analysis Date: **9/24/2021** SeqNo: **2882137** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	0.9901	0	91.7	80	120			
Toluene	0.94	0.050	0.9901	0	95.3	80	120			
Ethylbenzene	0.96	0.050	0.9901	0	97.2	80	120			
Xylenes, Total	2.8	0.099	2.970	0	95.6	80	120			
Surr: 4-Bromofluorobenzene	0.90		0.9901		91.2	70	130			

Sample ID: **2109b81-018amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **TP6-2** Batch ID: **62767** RunNo: **81560**

Prep Date: **9/22/2021** Analysis Date: **9/24/2021** SeqNo: **2882138** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.86	0.025	0.9940	0	87.0	80	120	4.90	20	
Toluene	0.89	0.050	0.9940	0	89.4	80	120	5.92	20	
Ethylbenzene	0.90	0.050	0.9940	0	90.2	80	120	7.11	20	
Xylenes, Total	2.7	0.099	2.982	0	88.9	80	120	6.83	20	
Surr: 4-Bromofluorobenzene	0.93		0.9940		93.7	70	130	0	0	

Sample ID: **mb-62954** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891656** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		84.8	70	130			

Sample ID: **LCS-62954** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.1	80	120			
Toluene	0.98	0.050	1.000	0	98.2	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.1	80	120			
Surr: 4-Bromofluorobenzene	0.88		1.000		87.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109B81**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **2109b81-003ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **TP1-10** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891660** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.023	0.9390	0	89.6	80	120			
Toluene	0.86	0.047	0.9390	0	91.1	80	120			
Ethylbenzene	0.85	0.047	0.9390	0	90.4	80	120			
Xylenes, Total	2.5	0.094	2.817	0	89.1	80	120			
Surr: 4-Bromofluorobenzene	0.81		0.9390		85.9	70	130			

Sample ID: **2109b81-003amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **TP1-10** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891661** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.024	0.9606	0	86.0	80	120	1.74	20	
Toluene	0.84	0.048	0.9606	0	87.4	80	120	1.90	20	
Ethylbenzene	0.85	0.048	0.9606	0	88.0	80	120	0.456	20	
Xylenes, Total	2.5	0.096	2.882	0	86.4	80	120	0.816	20	
Surr: 4-Bromofluorobenzene	0.83		0.9606		85.9	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **GHD Midland** Work Order Number: **2109B81** RcptNo: **1**

Received By: **Cheyenne Cason** **9/22/2021 7:10:00 AM** CNC

Completed By: **Sean Livingston** **9/22/2021 9:11:15 AM** Sean Livingston

Reviewed By: CNC 9/22/21

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	# of preserved bottles checked for pH:
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	(<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: JR 9/22/21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good				

Chain-of-Custody Record

Client: GHD

Mailing Address:

324 W. Main St. Suite 108, Artesia NM 88210

Phone #: (505)377-4218

email or Fax#: Becky.Haskell@ghd.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush 5-Day

Project Name: Hawkins BA #2

Project #: 11228980

Project Manager:

Becky Haskell

Tom Larson

Sampler: Zach Comino

On Ice: X Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.2 - 0.1 = 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2109881	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride Method 300 only test if sample is above 1.5
9/20/21	0750	S	TP1-2	Jar		001	X	X								X	
	0805		TP1-6			002											X
	0820		TP1-10			003											X
	0830		TP1-12			004											X
	0845		TP1-14			005											X
	0910		TP2-2			006											X
	0940		TP2-8			007											X
	0950		TP2-10			008											X
	1000		TP2-14			009											X
	1010		TP2-15			010											X
	1020		TP3-5			011											X
↓	1035	↓	TP3-2	↓		012	↓	↓								↓	

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9/21/21	0800	Zach Comino			9/21/21	800
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			CMC courier		9/22/21	0710

Remarks: Please email: Chase_Settle@eogresources.com; Tom.Larson@ghd.com; Zach.Comino@ghd.com Matthew.Laughlin@ghd.com: Along with Becky Haskell listed above.

Direct Bill to EOG Chase Settle

2 of 3

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Client: GHD

Mailing Address:
324 W. Main St. Suite 108, Artesia NM 88210

Phone #: (505)377-4218

email or Fax#: Becky.Haskell@ghd.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush 5-day

Project Name: Hornbaker BA #2

Project #: 1122 8980

Project Manager:
Becky Haskell
Tom Larson

Sampler: Zach Comino
On Ice: X Yes ☐ No
# of Coolers: 1
Cooler Temp (including CF): 1.2-0.1=1.1

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride Method 300	Only test if sample above fails
092021	1040	S	TP4-5	J		013	X	X									X	
↓	1050	↓	TP4-2	↓		014	↓	↓									↓	
↓	1100	↓	TP5-2	↓		015	↓	↓									↓	
↓	1110	↓	TP5-6	↓		016	↓	↓									↓	
↓	1120	↓	TP5-8	↓		017	↓	↓									↓	X
↓	1240	↓	TP6-2	↓		018	↓	↓									↓	
↓	1250	↓	TP6-6	↓		019	↓	↓									↓	
↓	1300	↓	TP6-8	↓		020	↓	↓									↓	X
↓	1310	↓	TP7-5	↓		021	↓	↓									↓	
↓	1320	↓	TP7-2	↓		022	↓	↓									↓	
↓	1340	↓	TP8-2	↓		023	↓	↓									↓	
↓	1355	↓	TP8-6	↓		024	↓	↓									↓	

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
092121	0800	Zach Comino	[signature]		9/21/21	800
9/21/21	1900	[signature]	CMC	Courier	9/22/21	0710

Remarks: Please email: Chase_Settle@eogresources.com; Tom.Larson@ghd.com; Zach.Comino@ghd.com Matthew.Laughlin@ghd.com: Along with Becky Haskell listed above.
Direct Bill to EOG Chase Settle

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: GHD

Mailing Address:

324 W. Main St. Suite 108, Artesia NM 88210

Phone #: (505)377-4218

email or Fax#: Becky.Haskell@ghd.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☑ Standard ☐ Rush 5-day

Project Name: Hawkeye BA #2

Project #: 1122880

Project Manager:

Becky Haskell

Tom Larson

Sampler: Zach Comino

On Ice: X Yes ☐ No

# of Coolers: 1

Cooler Temp (including CF): 1.2 - 0.1 = 1.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride (Method 300)	only test if sample tests positive for TCs
09/20/21	1140	S	TP8-12			025	X	X									X	
↓	1420	↓	TP8-16			026	↓	↓									↓	X
↓	1450	↓	TP8-18			027	↓	↓									↓	X
↓	1505	↓	TP8-20			028	↓	↓									↓	X

Analysis Request

Relinquished by:	Date	Time	Received by:	Via:	Date	Time
Zach Comino	09/21/21	0800				
	9/21/21	1800		Omni courier	9/22/21	0710

Remarks: Please email: Chase_Settle@eogresources.com; Tom.Larson@ghd.com; Zach.Comino@ghd.com Matthew.Laughlin@ghd.com: Along with Becky Haskell listed above.

Direct Bill to EOG Chase Settle

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

October 14, 2021

Tom Larson

GHD Midland
2135 S Loop 250 W
Midland, TX 79703
TEL: (432) 686-0086
FAX

RE: Hornbaker BA 2 OrderNo.: 2109C66

Dear Tom Larson:

Hall Environmental Analysis Laboratory received 22 sample(s) on 9/23/2021 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued September 30, 2021.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-001 **Matrix:** SOIL

Client Sample ID: TP9-2
Collection Date: 9/21/2021 7:35:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	2200	150		mg/Kg	50	9/29/2021 10:16:24 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	56	9.9		mg/Kg	1	9/28/2021 4:20:07 PM	62795
Motor Oil Range Organics (MRO)	270	49		mg/Kg	1	9/28/2021 4:20:07 PM	62795
Surr: DNOP	111	70-130		%Rec	1	9/28/2021 4:20:07 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/24/2021 9:59:00 AM	62793
Surr: BFB	90.6	70-130		%Rec	1	9/24/2021 9:59:00 AM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 9:59:00 AM	62793
Toluene	ND	0.047		mg/Kg	1	9/24/2021 9:59:00 AM	62793
Ethylbenzene	ND	0.047		mg/Kg	1	9/24/2021 9:59:00 AM	62793
Xylenes, Total	ND	0.094		mg/Kg	1	9/24/2021 9:59:00 AM	62793
Surr: 4-Bromofluorobenzene	76.4	70-130		%Rec	1	9/24/2021 9:59:00 AM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-002 **Matrix:** SOIL

Client Sample ID: TP9-6
Collection Date: 9/21/2021 7:45:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	1500	59		mg/Kg	20	10/4/2021 10:07:37 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	10/1/2021 9:34:53 PM	62957
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	10/1/2021 9:34:53 PM	62957
Surr: DNOP	71.9	70-130		%Rec	1	10/1/2021 9:34:53 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	10/4/2021 1:42:08 PM	62954
Surr: BFB	106	70-130		%Rec	1	10/4/2021 1:42:08 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	10/4/2021 1:42:08 PM	62954
Toluene	ND	0.046		mg/Kg	1	10/4/2021 1:42:08 PM	62954
Ethylbenzene	ND	0.046		mg/Kg	1	10/4/2021 1:42:08 PM	62954
Xylenes, Total	ND	0.093		mg/Kg	1	10/4/2021 1:42:08 PM	62954
Surr: 4-Bromofluorobenzene	86.9	70-130		%Rec	1	10/4/2021 1:42:08 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-003 **Matrix:** SOIL

Client Sample ID: TP9-10
Collection Date: 9/21/2021 8:00:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	1300	60		mg/Kg	20	10/4/2021 10:20:02 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/1/2021 9:58:31 PM	62957
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/1/2021 9:58:31 PM	62957
Surr: DNOP	83.8	70-130		%Rec	1	10/1/2021 9:58:31 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2021 2:05:32 PM	62954
Surr: BFB	105	70-130		%Rec	1	10/4/2021 2:05:32 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/4/2021 2:05:32 PM	62954
Toluene	ND	0.049		mg/Kg	1	10/4/2021 2:05:32 PM	62954
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2021 2:05:32 PM	62954
Xylenes, Total	ND	0.099		mg/Kg	1	10/4/2021 2:05:32 PM	62954
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	10/4/2021 2:05:32 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-004 **Matrix:** SOIL

Client Sample ID: TP9-14
Collection Date: 9/21/2021 8:20:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	950	60		mg/Kg	20	10/4/2021 10:32:26 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/1/2021 10:22:11 PM	62957
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/1/2021 10:22:11 PM	62957
Surr: DNOP	76.0	70-130		%Rec	1	10/1/2021 10:22:11 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2021 2:29:01 PM	62954
Surr: BFB	107	70-130		%Rec	1	10/4/2021 2:29:01 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/4/2021 2:29:01 PM	62954
Toluene	ND	0.049		mg/Kg	1	10/4/2021 2:29:01 PM	62954
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2021 2:29:01 PM	62954
Xylenes, Total	ND	0.098		mg/Kg	1	10/4/2021 2:29:01 PM	62954
Surr: 4-Bromofluorobenzene	88.6	70-130		%Rec	1	10/4/2021 2:29:01 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-005 **Matrix:** SOIL

Client Sample ID: TP9-17
Collection Date: 9/21/2021 8:40:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	550	60		mg/Kg	20	10/4/2021 10:44:52 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/1/2021 10:45:48 PM	62957
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/1/2021 10:45:48 PM	62957
Surr: DNOP	79.8	70-130		%Rec	1	10/1/2021 10:45:48 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2021 4:03:05 PM	62954
Surr: BFB	103	70-130		%Rec	1	10/4/2021 4:03:05 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/4/2021 4:03:05 PM	62954
Toluene	ND	0.049		mg/Kg	1	10/4/2021 4:03:05 PM	62954
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2021 4:03:05 PM	62954
Xylenes, Total	ND	0.098		mg/Kg	1	10/4/2021 4:03:05 PM	62954
Surr: 4-Bromofluorobenzene	85.1	70-130		%Rec	1	10/4/2021 4:03:05 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-006 **Matrix:** SOIL

Client Sample ID: TP9-19
Collection Date: 9/21/2021 9:00:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	300	59		mg/Kg	20	10/4/2021 10:57:17 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/1/2021 11:09:24 PM	62957
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/1/2021 11:09:24 PM	62957
Surr: DNOP	93.4	70-130		%Rec	1	10/1/2021 11:09:24 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2021 4:26:36 PM	62954
Surr: BFB	104	70-130		%Rec	1	10/4/2021 4:26:36 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/4/2021 4:26:36 PM	62954
Toluene	ND	0.049		mg/Kg	1	10/4/2021 4:26:36 PM	62954
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2021 4:26:36 PM	62954
Xylenes, Total	ND	0.097		mg/Kg	1	10/4/2021 4:26:36 PM	62954
Surr: 4-Bromofluorobenzene	86.6	70-130		%Rec	1	10/4/2021 4:26:36 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-007 **Matrix:** SOIL

Client Sample ID: TP10-2
Collection Date: 9/21/2021 9:40:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	1100	60		mg/Kg	20	9/29/2021 12:57:46 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/28/2021 6:26:34 PM	62795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/28/2021 6:26:34 PM	62795
Surr: DNOP	91.3	70-130		%Rec	1	9/28/2021 6:26:34 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 11:56:00 AM	62793
Surr: BFB	91.8	70-130		%Rec	1	9/24/2021 11:56:00 AM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 11:56:00 AM	62793
Toluene	ND	0.049		mg/Kg	1	9/24/2021 11:56:00 AM	62793
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 11:56:00 AM	62793
Xylenes, Total	ND	0.099		mg/Kg	1	9/24/2021 11:56:00 AM	62793
Surr: 4-Bromofluorobenzene	76.6	70-130		%Rec	1	9/24/2021 11:56:00 AM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Client Sample ID: TP10-6
Project: Hornbaker BA 2
Collection Date: 9/21/2021 9:50:00 AM
Lab ID: 2109C66-008 **Matrix:** SOIL **Received Date:** 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	270	61		mg/Kg	20	10/4/2021 11:09:41 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/1/2021 11:33:00 PM	62957
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/1/2021 11:33:00 PM	62957
Surr: DNOP	88.0	70-130		%Rec	1	10/1/2021 11:33:00 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/4/2021 4:50:03 PM	62954
Surr: BFB	103	70-130		%Rec	1	10/4/2021 4:50:03 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	10/4/2021 4:50:03 PM	62954
Toluene	ND	0.049		mg/Kg	1	10/4/2021 4:50:03 PM	62954
Ethylbenzene	ND	0.049		mg/Kg	1	10/4/2021 4:50:03 PM	62954
Xylenes, Total	ND	0.098		mg/Kg	1	10/4/2021 4:50:03 PM	62954
Surr: 4-Bromofluorobenzene	86.0	70-130		%Rec	1	10/4/2021 4:50:03 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-009 **Matrix:** SOIL

Client Sample ID: TP10-8
Collection Date: 9/21/2021 10:00:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	380	60		mg/Kg	20	10/4/2021 11:22:05 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	10/1/2021 11:56:37 PM	62957
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	10/1/2021 11:56:37 PM	62957
Surr: DNOP	97.4	70-130		%Rec	1	10/1/2021 11:56:37 PM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/4/2021 5:13:48 PM	62954
Surr: BFB	102	70-130		%Rec	1	10/4/2021 5:13:48 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	10/4/2021 5:13:48 PM	62954
Toluene	ND	0.047		mg/Kg	1	10/4/2021 5:13:48 PM	62954
Ethylbenzene	ND	0.047		mg/Kg	1	10/4/2021 5:13:48 PM	62954
Xylenes, Total	ND	0.095		mg/Kg	1	10/4/2021 5:13:48 PM	62954
Surr: 4-Bromofluorobenzene	83.6	70-130		%Rec	1	10/4/2021 5:13:48 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-010 **Matrix:** SOIL

Client Sample ID: TP10-10
Collection Date: 9/21/2021 10:10:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	75	60		mg/Kg	20	10/4/2021 11:34:30 AM	62988
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/2/2021 12:20:14 AM	62957
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/2/2021 12:20:14 AM	62957
Surr: DNOP	73.1	70-130		%Rec	1	10/2/2021 12:20:14 AM	62957
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	10/4/2021 5:37:18 PM	62954
Surr: BFB	105	70-130		%Rec	1	10/4/2021 5:37:18 PM	62954
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	10/4/2021 5:37:18 PM	62954
Toluene	ND	0.047		mg/Kg	1	10/4/2021 5:37:18 PM	62954
Ethylbenzene	ND	0.047		mg/Kg	1	10/4/2021 5:37:18 PM	62954
Xylenes, Total	ND	0.093		mg/Kg	1	10/4/2021 5:37:18 PM	62954
Surr: 4-Bromofluorobenzene	87.0	70-130		%Rec	1	10/4/2021 5:37:18 PM	62954

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-011 **Matrix:** SOIL

Client Sample ID: TP11-S
Collection Date: 9/21/2021 10:20:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/29/2021 1:35:00 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/24/2021 12:28:04 PM	62795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 12:28:04 PM	62795
Surr: DNOP	81.0	70-130		%Rec	1	9/24/2021 12:28:04 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 12:16:00 PM	62793
Surr: BFB	86.4	70-130		%Rec	1	9/24/2021 12:16:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 12:16:00 PM	62793
Toluene	ND	0.049		mg/Kg	1	9/24/2021 12:16:00 PM	62793
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 12:16:00 PM	62793
Xylenes, Total	ND	0.099		mg/Kg	1	9/24/2021 12:16:00 PM	62793
Surr: 4-Bromofluorobenzene	75.7	70-130		%Rec	1	9/24/2021 12:16:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-012 **Matrix:** SOIL

Client Sample ID: TP11-2
Collection Date: 9/21/2021 10:30:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/29/2021 1:47:24 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/24/2021 12:40:30 PM	62795
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2021 12:40:30 PM	62795
Surr: DNOP	101	70-130		%Rec	1	9/24/2021 12:40:30 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/24/2021 12:36:00 PM	62793
Surr: BFB	91.0	70-130		%Rec	1	9/24/2021 12:36:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 12:36:00 PM	62793
Toluene	ND	0.050		mg/Kg	1	9/24/2021 12:36:00 PM	62793
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2021 12:36:00 PM	62793
Xylenes, Total	ND	0.099		mg/Kg	1	9/24/2021 12:36:00 PM	62793
Surr: 4-Bromofluorobenzene	78.2	70-130		%Rec	1	9/24/2021 12:36:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-013 **Matrix:** SOIL

Client Sample ID: TP12-S
Collection Date: 9/21/2021 10:35:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/29/2021 1:59:49 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/24/2021 12:52:56 PM	62795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 12:52:56 PM	62795
Surr: DNOP	112	70-130		%Rec	1	9/24/2021 12:52:56 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 12:55:00 PM	62793
Surr: BFB	90.4	70-130		%Rec	1	9/24/2021 12:55:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 12:55:00 PM	62793
Toluene	ND	0.048		mg/Kg	1	9/24/2021 12:55:00 PM	62793
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 12:55:00 PM	62793
Xylenes, Total	ND	0.096		mg/Kg	1	9/24/2021 12:55:00 PM	62793
Surr: 4-Bromofluorobenzene	78.0	70-130		%Rec	1	9/24/2021 12:55:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-014 **Matrix:** SOIL

Client Sample ID: TP12-2
Collection Date: 9/21/2021 10:40:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/29/2021 2:12:14 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/28/2021 6:02:46 PM	62795
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/28/2021 6:02:46 PM	62795
Surr: DNOP	81.0	70-130		%Rec	1	9/28/2021 6:02:46 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 1:15:00 PM	62793
Surr: BFB	91.3	70-130		%Rec	1	9/24/2021 1:15:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 1:15:00 PM	62793
Toluene	ND	0.048		mg/Kg	1	9/24/2021 1:15:00 PM	62793
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 1:15:00 PM	62793
Xylenes, Total	ND	0.097		mg/Kg	1	9/24/2021 1:15:00 PM	62793
Surr: 4-Bromofluorobenzene	79.2	70-130		%Rec	1	9/24/2021 1:15:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-015 **Matrix:** SOIL

Client Sample ID: TP13-2
Collection Date: 9/21/2021 10:50:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	200	60		mg/Kg	20	9/29/2021 2:24:39 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/24/2021 1:17:33 PM	62795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 1:17:33 PM	62795
Surr: DNOP	90.5	70-130		%Rec	1	9/24/2021 1:17:33 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 2:14:00 PM	62793
Surr: BFB	90.2	70-130		%Rec	1	9/24/2021 2:14:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 2:14:00 PM	62793
Toluene	ND	0.048		mg/Kg	1	9/24/2021 2:14:00 PM	62793
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 2:14:00 PM	62793
Xylenes, Total	ND	0.096		mg/Kg	1	9/24/2021 2:14:00 PM	62793
Surr: 4-Bromofluorobenzene	75.7	70-130		%Rec	1	9/24/2021 2:14:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-016 **Matrix:** SOIL

Client Sample ID: TP13-4
Collection Date: 9/21/2021 11:00:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	240	60		mg/Kg	20	9/29/2021 2:37:04 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/24/2021 1:29:56 PM	62795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 1:29:56 PM	62795
Surr: DNOP	82.2	70-130		%Rec	1	9/24/2021 1:29:56 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 2:34:00 PM	62793
Surr: BFB	85.5	70-130		%Rec	1	9/24/2021 2:34:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 2:34:00 PM	62793
Toluene	ND	0.049		mg/Kg	1	9/24/2021 2:34:00 PM	62793
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 2:34:00 PM	62793
Xylenes, Total	ND	0.098		mg/Kg	1	9/24/2021 2:34:00 PM	62793
Surr: 4-Bromofluorobenzene	77.0	70-130		%Rec	1	9/24/2021 2:34:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-017 **Matrix:** SOIL

Client Sample ID: TP14-S
Collection Date: 9/21/2021 11:05:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	130	60		mg/Kg	20	9/29/2021 2:49:29 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	11	9.6		mg/Kg	1	9/24/2021 1:42:19 PM	62795
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/24/2021 1:42:19 PM	62795
Surr: DNOP	72.4	70-130		%Rec	1	9/24/2021 1:42:19 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 3:33:00 PM	62793
Surr: BFB	89.7	70-130		%Rec	1	9/24/2021 3:33:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 3:33:00 PM	62793
Toluene	ND	0.049		mg/Kg	1	9/24/2021 3:33:00 PM	62793
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 3:33:00 PM	62793
Xylenes, Total	ND	0.098		mg/Kg	1	9/24/2021 3:33:00 PM	62793
Surr: 4-Bromofluorobenzene	77.2	70-130		%Rec	1	9/24/2021 3:33:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-018 **Matrix:** SOIL

Client Sample ID: TP14-2
Collection Date: 9/21/2021 11:10:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	83	59		mg/Kg	20	9/29/2021 3:01:54 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/24/2021 1:54:56 PM	62795
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/24/2021 1:54:56 PM	62795
Surr: DNOP	73.7	70-130		%Rec	1	9/24/2021 1:54:56 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/24/2021 3:52:00 PM	62793
Surr: BFB	92.6	70-130		%Rec	1	9/24/2021 3:52:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.023		mg/Kg	1	9/24/2021 3:52:00 PM	62793
Toluene	ND	0.046		mg/Kg	1	9/24/2021 3:52:00 PM	62793
Ethylbenzene	ND	0.046		mg/Kg	1	9/24/2021 3:52:00 PM	62793
Xylenes, Total	ND	0.093		mg/Kg	1	9/24/2021 3:52:00 PM	62793
Surr: 4-Bromofluorobenzene	78.6	70-130		%Rec	1	9/24/2021 3:52:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-019 **Matrix:** SOIL

Client Sample ID: TP15-S
Collection Date: 9/21/2021 11:20:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/29/2021 3:14:19 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/24/2021 2:07:19 PM	62795
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/24/2021 2:07:19 PM	62795
Surr: DNOP	81.4	70-130		%Rec	1	9/24/2021 2:07:19 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 4:12:00 PM	62793
Surr: BFB	91.6	70-130		%Rec	1	9/24/2021 4:12:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.025		mg/Kg	1	9/24/2021 4:12:00 PM	62793
Toluene	ND	0.049		mg/Kg	1	9/24/2021 4:12:00 PM	62793
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 4:12:00 PM	62793
Xylenes, Total	ND	0.099		mg/Kg	1	9/24/2021 4:12:00 PM	62793
Surr: 4-Bromofluorobenzene	77.9	70-130		%Rec	1	9/24/2021 4:12:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-020 **Matrix:** SOIL

Client Sample ID: TP15-2
Collection Date: 9/21/2021 11:25:00 AM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	99	60		mg/Kg	20	9/29/2021 3:26:44 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/24/2021 2:19:55 PM	62795
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/24/2021 2:19:55 PM	62795
Surr: DNOP	91.2	70-130		%Rec	1	9/24/2021 2:19:55 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/24/2021 4:32:00 PM	62793
Surr: BFB	91.1	70-130		%Rec	1	9/24/2021 4:32:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 4:32:00 PM	62793
Toluene	ND	0.049		mg/Kg	1	9/24/2021 4:32:00 PM	62793
Ethylbenzene	ND	0.049		mg/Kg	1	9/24/2021 4:32:00 PM	62793
Xylenes, Total	ND	0.098		mg/Kg	1	9/24/2021 4:32:00 PM	62793
Surr: 4-Bromofluorobenzene	79.4	70-130		%Rec	1	9/24/2021 4:32:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-021 **Matrix:** SOIL

Client Sample ID: TP16-S
Collection Date: 9/21/2021 12:40:00 PM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **VP**	
Chloride	ND	60		mg/Kg	20	9/29/2021 4:03:58 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/24/2021 2:32:22 PM	62795
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/24/2021 2:32:22 PM	62795
Surr: DNOP	78.2	70-130		%Rec	1	9/24/2021 2:32:22 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **mb**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/24/2021 4:52:00 PM	62793
Surr: BFB	93.2	70-130		%Rec	1	9/24/2021 4:52:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst: **mb**	
Benzene	ND	0.024		mg/Kg	1	9/24/2021 4:52:00 PM	62793
Toluene	ND	0.048		mg/Kg	1	9/24/2021 4:52:00 PM	62793
Ethylbenzene	ND	0.048		mg/Kg	1	9/24/2021 4:52:00 PM	62793
Xylenes, Total	ND	0.097		mg/Kg	1	9/24/2021 4:52:00 PM	62793
Surr: 4-Bromofluorobenzene	78.9	70-130		%Rec	1	9/24/2021 4:52:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2109C66**
Date Reported: **10/14/2021**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD Midland
Project: Hornbaker BA 2
Lab ID: 2109C66-022 **Matrix:** SOIL

Client Sample ID: TP16-2
Collection Date: 9/21/2021 12:50:00 PM
Received Date: 9/23/2021 7:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**VP**
Chloride	ND	60		mg/Kg	20	9/29/2021 4:16:23 AM	62881
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**SB**
Diesel Range Organics (DRO)	66	9.9		mg/Kg	1	9/27/2021 8:33:44 PM	62795
Motor Oil Range Organics (MRO)	170	50		mg/Kg	1	9/27/2021 8:33:44 PM	62795
Surr: DNOP	87.7	70-130		%Rec	1	9/27/2021 8:33:44 PM	62795
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**mb**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/24/2021 5:12:00 PM	62793
Surr: BFB	92.1	70-130		%Rec	1	9/24/2021 5:12:00 PM	62793
EPA METHOD 8021B: VOLATILES						Analyst:	**mb**
Benzene	ND	0.023		mg/Kg	1	9/24/2021 5:12:00 PM	62793
Toluene	ND	0.047		mg/Kg	1	9/24/2021 5:12:00 PM	62793
Ethylbenzene	ND	0.047		mg/Kg	1	9/24/2021 5:12:00 PM	62793
Xylenes, Total	ND	0.093		mg/Kg	1	9/24/2021 5:12:00 PM	62793
Surr: 4-Bromofluorobenzene	77.8	70-130		%Rec	1	9/24/2021 5:12:00 PM	62793

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109C66**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **MB-62881** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **62881** RunNo: **81605**
Prep Date: **9/28/2021** Analysis Date: **9/29/2021** SeqNo: **2886065** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62881** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **62881** RunNo: **81605**
Prep Date: **9/28/2021** Analysis Date: **9/29/2021** SeqNo: **2886066** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.1	90	110			

Sample ID: **MB-62988** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **62988** RunNo: **81780**
Prep Date: **10/2/2021** Analysis Date: **10/4/2021** SeqNo: **2892413** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-62988** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **62988** RunNo: **81780**
Prep Date: **10/2/2021** Analysis Date: **10/4/2021** SeqNo: **2892414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.4	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109C66**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **MB-62795**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **62795**	RunNo: **81548**
Prep Date: **9/23/2021**	Analysis Date: **9/24/2021**	SeqNo: **2881822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	70	130			

Sample ID: **LCS-62795**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **62795**	RunNo: **81548**
Prep Date: **9/23/2021**	Analysis Date: **9/24/2021**	SeqNo: **2881823** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.2	68.9	135			
Surr: DNOP	4.8		5.000		96.4	70	130			

Sample ID: **MB-62957**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **62957**	RunNo: **81750**
Prep Date: **9/30/2021**	Analysis Date: **10/1/2021**	SeqNo: **2890617** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.8		10.00		98.0	70	130			

Sample ID: **LCS-62957**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **62957**	RunNo: **81750**
Prep Date: **9/30/2021**	Analysis Date: **10/1/2021**	SeqNo: **2890618** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.7	68.9	135			
Surr: DNOP	4.9		5.000		98.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109C66**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **lcs-62793** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **62793** RunNo: **81547**

Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2881959** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	78.6	131			
Surr: BFB	1000		1000		101	70	130			

Sample ID: **mb-62793** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **62793** RunNo: **81547**

Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2881960** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.6	70	130			

Sample ID: **mb-62954** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **PBS** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891593** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	70	130			

Sample ID: **lcs-62954** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**

Client ID: **LCSS** Batch ID: **62954** RunNo: **81769**

Prep Date: **9/30/2021** Analysis Date: **10/4/2021** SeqNo: **2891594** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	78.6	131			
Surr: BFB	1100		1000		110	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109C66**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **lcs-62793** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **62793** RunNo: **81547**

Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2881994** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.9	80	120			
Toluene	0.89	0.050	1.000	0	89.1	80	120			
Ethylbenzene	0.90	0.050	1.000	0	90.1	80	120			
Xylenes, Total	2.7	0.10	3.000	0	90.4	80	120			
Surr: 4-Bromofluorobenzene	0.79		1.000		78.9	70	130			

Sample ID: **mb-62793** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **62793** RunNo: **81547**

Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2881995** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.81		1.000		81.0	70	130			

Sample ID: **2109C66-001ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **TP9-2** Batch ID: **62793** RunNo: **81547**

Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2881999** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.025	0.9990	0	97.7	80	120			
Toluene	1.0	0.050	0.9990	0	102	80	120			
Ethylbenzene	1.1	0.050	0.9990	0	106	80	120			
Xylenes, Total	3.2	0.10	2.997	0	106	80	120			
Surr: 4-Bromofluorobenzene	0.75		0.9990		74.9	70	130			

Sample ID: **2109C66-001amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **TP9-2** Batch ID: **62793** RunNo: **81547**

Prep Date: **9/23/2021** Analysis Date: **9/24/2021** SeqNo: **2882000** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.024	0.9756	0	98.9	80	120	1.15	20	
Toluene	1.0	0.049	0.9756	0	104	80	120	0.412	20	
Ethylbenzene	1.1	0.049	0.9756	0	108	80	120	0.577	20	
Xylenes, Total	3.2	0.098	2.927	0	108	80	120	0.140	20	
Surr: 4-Bromofluorobenzene	0.75		0.9756		76.7	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2109C66**

14-Oct-21

Client: GHD Midland

Project: Hornbaker BA 2

Sample ID: **mb-62954**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **62954**	RunNo: **81769**
Prep Date: **9/30/2021**	Analysis Date: **10/4/2021**	SeqNo: **2891656** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.85		1.000		84.8	70	130			

Sample ID: **LCS-62954**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **62954**	RunNo: **81769**
Prep Date: **9/30/2021**	Analysis Date: **10/4/2021**	SeqNo: **2891657** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	97.1	80	120			
Toluene	0.98	0.050	1.000	0	98.2	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.1	80	120			
Surr: 4-Bromofluorobenzene	0.88		1.000		87.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **GHD Midland** Work Order Number: **2109C66** RcptNo: **1**

Received By: **Cheyenne Cason** **9/23/2021 7:30:00 AM** Chel

Completed By: **Sean Livingston** **9/23/2021 8:27:21 AM** Sean Livingston

Reviewed By: JN 9/23/21

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by: TNL 9.23.21

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good				
2	2.9	Good				

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: GHD

Mailing Address: 324 W. Main St. Suite 108, Artesia NM 88210

Phone #: (505)377-4218

email or Fax#: Becky.Haskell@ghd.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush 5-Day

Project Name: Hawkaker BA #2

Project #: 11228980

Project Manager: Becky Haskell, Tom Larson

Sampler: Zach Comino

On Ice: X Yes ☐ No

# of Coolers: 2 2.7-0.1=2.6

Cooler Temp(including CF): 3.0-0.1=2.9

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2109606	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride (Method 300.0)	Only test if sample fails
09/23/21	0735	S	TP9-2	Jar		001	2	2									A	
	0745		TP9-6			002												X
	0800		TP9-10			003												X
	0820		TP9-14			004												X
	0840		TP9-17			005												X
	0900		TP9-19			006												X
	0940		TP10-2			007												X
	0950		TP10-6			008												X
	1000		TP10-8			009												X
	1010		TP10-10			010												X
	1020		TP11-5			011												
	1030		TP11-2			012												

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
09/23/21	0800	Zach Comino			9/23/21	800
9/23/21	1900		Chris Comino		9/23/21	0730

Remarks: Please email: Chase_Settle@eogresources.com; Tom.Larson@ghd.com; Zach.Comino@ghd.com Matthew.Laughlin@ghd.com: Along with Becky Haskell listed above.

Direct Bill to EOG Chase Settle

Chain-of-Custody Record

Client: GHD

Mailing Address:

324 W. Main St. Suite 108, Artesia NM 88210

Phone #: (505)377-4218

email or Fax#: Becky.Haskell@ghd.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush 5-Day

Project Name: Hanbaker BA #2

Project #: 11228980

Project Manager:

Becky Haskell

Tom Larson

Sampler: Zach Comino

On Ice: X Yes ☐ No

# of Coolers: 2 2.7 -0.2 -0.1 = 2.6 Cm 4/23/21

Cooler Temp(including CF): 3.0 -0.1 = 2.4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Chloride Method 300
09/22/21	1035	S	TP12-S	Jar		013	✓	✓									✓
	1040		TP12-2			014											
	1050		TP13-2			015											
	1100		TP13-4			016											
	1105		TP14-S			017											
	1110		TP14-2			018											
	1120		TP15-S			019											
	1125		TP15-2			020											
	1240		TP16-S			021											
	1250		TP16-2			022	✓	✓									✓

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
09/22/21	0800	Zach Comino				
9/22/21	1900				9/22/21	800
9/22/21	1900		One Carrier		9/23/21	0730

Remarks: Please email: Chase_Settle@eogresources.com; Tom.Larson@ghd.com; Zach.Comino@ghd.com Matthew.Laughlin@ghd.com: Along with Becky Haskell listed above.

Direct Bill to EOG Chase Settle

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

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 77442

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 77442
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	None	2/9/2022