

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	nAPP2129935504
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Plains Pipeline, L.P.	OGRID 713291
Contact Name Amber Groves	Contact Telephone 575-200-5517
Contact email algroves@paalp.com	Incident # (assigned by OCD)
Contact mailing address 1911 Connie Road, Carlsbad NM 88220	

Location of Release Source

Latitude 32.181559 Longitude -103.421514
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Endurance 6" Upstream Jacinto Tie In	Site Type Pipeline
Date Release Discovered 10/25/2021	API# (if applicable)

Unit Letter	Section	Township	Range	County
O	25	24S	34E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: Quail Ranch)

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) 42.7	Volume Recovered (bbls) 0
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

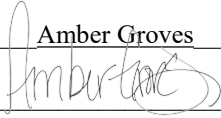
Internal Corrosion discovered during station awareness inspections.

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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? Release volume greater than 25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? Amber Groves sent initial notification e-mail on 10/26/2021 to Jim Griswold, Bradford Billings, Mike Bratcher, Robert Hamlet, Karen Collins and Chad Hensley	

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 <u>not</u> 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: <u>Amber Groves</u>	Title: <u>Remediation Coordinator</u>
Signature: <u></u>	Date: <u>10/29/2021</u>
email: <u>algroves@paalp.com</u>	Telephone: <u>(575)200-5517</u>
<u>OCD Only</u>	
Received by: _____	Date: _____

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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>Unknown</u> (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.

Oil Conservation Division

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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: Amber Groves Title: Remediation Coordinator
Signature:  Date: _____
email: algroves@paalp.com Telephone: (575)200-5517

OCD Only

Received by: _____ Date: _____

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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: Amber Groves Title: Remediation Coordinator
Signature: _____ Date: _____
email: algroves@paalp.com Telephone: (575)200-5517

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

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

Our ref: 12566934

December 17, 2021

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

Re: **Site Characterization and Remediation Work Plan
Endurance 6" Upstream Jacinto Tie-In Release Site
Plains Pipeline, L.P.
Incident ID: nAPP2129935504
O-25-24S-34E, Lea County, New Mexico**

To Whom It May Concern:

1. Introduction

GHD Services, Inc. (GHD), on behalf of Plains Pipeline, L.P. (Plains), submits this Site Characterization and Remediation Work Plan to the New Mexico Oil Conservation Division (NMOCD) District 1 Office. This Report provides documentation of excavation activities, confirmation sampling, and analyses in the affected area at the Plains Endurance 6" Upstream Jacinto Tie-In Release Site (Site). The Site is located in Unit Letter O Section 25 of Township 24 South and Range 34 East in Lea County, New Mexico. The GPS coordinates for the release site are 32.181559 N latitude and 103.421514 W longitude. The release occurred on October 25, 2021, on private land owned by Quail Ranch. Figure 1 depicts the Site location. Figure 2, Site Plan and Soil Analytical Results Map, depicts the excavated area, Battle Axe Road, access road, Conoco Phillips pad and other site details.

2. Background Information

A C-141, Release Notification, for this release was submitted to the NMOCD on October 29, 2021. The C-141 stated the release was due to internal corrosion and was discovered during station awareness inspections. The release was reported as 42.7 barrels (bbl) of crude oil with zero (0) bbl. recovered. The release falls under the jurisdiction of the NMOCD District 1 Office in Hobbs, New Mexico. The NMOCD assigned the release with Incident Number nAPP2129935504. The Release Notification, Site Assessment/Characterization and Remediation Plan 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).

According to the Site characterization evaluation and 19.15.29.12.C(4)(a)(i) the Site is located within an area of low karst potential. No groundwater data could be located within one-half mile of the Site. No receptors (water wells, playas, wetlands, waterways, lakebeds or ordinance boundaries) were located within each specific boundaries or distance from the Site. The Site characterization documentation (Karst Potential, FEMA, 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	Unknown Within A Half Mile

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

Constituent	Limits
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
TPH (GRO+DRO)	Not Applicable
Benzene	10 mg/kg
BTEX	50 mg/kg

Since no groundwater data could be located within one half mile from the site, GHD and a New Mexico licensed driller will return to the site with a drilling rig to install a groundwater determination soil boring within a half mile from the site. The groundwater determination soil boring will be drilled to 105 feet below ground surface (bgs) and will be left open for 72 hours to determine the presence or absence of groundwater by utilization of a water level meter. If groundwater is detected at fifty-one (51) feet or greater the closure criteria for this site will change accordingly with NMAC 19.15.29.12 Table 1 (Table 1).

4. Initial Soil Delineation Assessment Summary and Findings

On October 26, 2021, during initial response activities, two (2) hand auger boring were installed to assess how deep impacts were. Hand auger borings AH1 and AH2 were installed to three (3) feet and four (4) feet bgs, respectively, where refusal was encountered. Samples were collected at depths ranging from one (1) to four (4) feet bgs. All soil samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300 by Eurofins Xenco Laboratory (Eurofins) in Midland, Texas. All samples exhibited benzene, BTEX and Total TPH concentrations over Table 1 closure criteria. All samples exhibited chloride concentrations below Table 1 closure criteria.

Excavation activities began with initial response activities and continued through November 19, 2021. The excavation is approximately nineteen (19) feet in depth. On November 2, 2021, a test pit, TP-1, was installed in the bottom of the excavation to a depth of thirty-one (31) feet bgs which was the extent of the backhoe reach. Samples were collected at twenty-two (22), twenty-eight (28), and thirty-one (31) feet bgs. All soil samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300

by Eurofins in Midland, Texas. All samples exhibited benzene, BTEX and Total TPH concentrations over Table 1 closure criteria. All samples exhibited chloride concentrations below Table 1 closure criteria.

From November 15, 2021, through November 19, 2021, sidewall confirmation soil samples were collected. Twenty-seven (27), SW-1 through SW-27, confirmation samples were collected from areas representing areas no greater than 200 square feet. Additionally, one bottom hole sample was collected from an area representing 200 square feet, BH-1. All soil samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300 by Eurofins in Midland, Texas. Two (2) sidewall confirmation samples, SW-8 and SW-13, and BH-1 exhibited Total TPH concentrations above Table 1 closure criteria. TPH concentration ranged from 134 mg/kg in BH-1 to 318 mg/kg in SW-13.

On December 2 and 3, 2021, additional excavation was conducted from the sidewalls in the areas represented by SW-8 and SW-13. On December 3, 2021, the areas were resampled, SW-8A and SW-13A. The soil samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300 by Eurofins in Midland, Texas. Analytical results indicated Total TPH concentrations less than the Table 1 closure criteria of 100 mg/kg.

Since further excavation of the west wall can't be safely executed due to the Plains riser and pipelines, a test pit, TP-2, was installed next to the riser to determine the vertical and horizontal extents of impact on November 19, 2021. Samples were collected at two (2), four (4), six (6), ten (10) and twelve (12) feet bgs. The soil samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300 by Eurofins in Midland, Texas. Analytical results indicated all samples exhibited benzene, BTEX, TPH and chloride concentration below Table 1 closure criteria.

During excavation activities approximately one hundred-twenty (120) cubic yards of unimpacted overburden was segregated and stockpiled separately from the impacted soil. On December 8 and 10, 2021, three soil samples, Clean Pile, Clean Pile 2 and Clean Pile 3, were collected from the stockpile. The soil samples were analyzed for BTEX by EPA Method 8021B, TPH by Method 8015B Modified, and chloride by EPA Method 300 by Eurofins in Midland, Texas. Analytical results indicated all samples exhibited benzene, BTEX, TPH and chloride concentration below Table 1 closure criteria.

Figure 2, Site Plan and Soil Analytical Results Map, depicts the locations of the test pits, bottom hole and sidewalls confirmation samples and analytical concentrations. Analytical results are provided in Table 1, on Figure 2, and in the Laboratory Analytical Reports provided in Attachment C.

5. nAPP2129935504 Proposed Work Plan and Variance Request

The area of the excavation is limited due to the proximity of the Conoco Phillips pad located to the north, the access road to the east, Battle Axe Road to the south and the Plains riser to the west. Battle Axe Road and the access road are the only access ways to the three pads located off Battle Axe Road. A Photographic Log is included as Attachment B. Further vertical excavation can't be done so in a safe manner due to these limitations. Based on existing site conditions, Plains has determined that most likely, soil remediation utilizing a Soil Vapor Extraction (SVE) system is a viable approach to address impacts at this release site.

Prior to backfilling the site, the bottom of the excavation will be mounded to aid in SVE remediation. PVC conduits will be installed in the bottom of the excavation and extended up to above ground surface as backfilling activities continue. The PVC conduits will aid in drilling through the backfilled material. GHD, on behalf of Plains, requests to utilize the approximate one hundred-twenty (120) cubic yards of unimpacted soil which was sampled on December 8 and 10, 2021, as part of the backfill material since

the analytical results indicated benzene, BTEX, TPH and chloride concentrations below Table 1 closure criteria.

After backfilling activities are complete, a licenced New Mexico driller will be scheduled to install a soil boring to delineate the hydrocarbon impacts, a depth to groundwater determination soil boring and SVE wells. Samples will be obtained every five (5) feet from the delineation soil boring starting at thirty-five (35) feet bgs and will continue until field screens and observations indicate samples are below Table 1 closure criteria. Select soil 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.

Additionally, a boring will be installed in the area of TP-1 to approximately one hundred-five (105) feet bgs to determine if groundwater is greater than one hundred feet bgs to further evaluate closure criteria at this location. The soil boring will be left open for 72 hours. After 72 hours the boring will be gauged with a water level meter to determine the presence or absence of groundwater. After gauging the boring will be plugged by the licenced New Mexico driller.

GHD, on behalf of Plains, requests a variance per 19.15.29.14 to install a 20-mil liner at the bottom of the excavation at approximately nineteen (19) feet bgs prior to backfilling. The liner will act as a control measure to mitigate the deeper migration of hydrocarbons and provide a barrier to any upward migration of hydrocarbons. Additionally, the liner will allow for the accumulation of volatile organic compounds near the barrier to facilitate hydrocarbon recovery operations.

Excavated soils will be transported to a NMOCD approved disposal facility for disposal. Once the site has been delineated, another work plan will be prepared with additional details regarding the SVE system and submitted to the NMOCD for consideration. Information collected from the proposed soil boring activities including vertical delineation and depth to groundwater data will also be included at that time, along with the proposed locations and number of SVE wells to address site conditions. The activities described here are anticipated to take approximately 180 days from work plan approval.

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

Sincerely,

GHD



Becky Haskell
Senior Project Manager



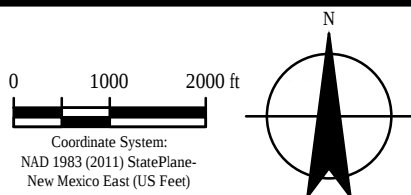
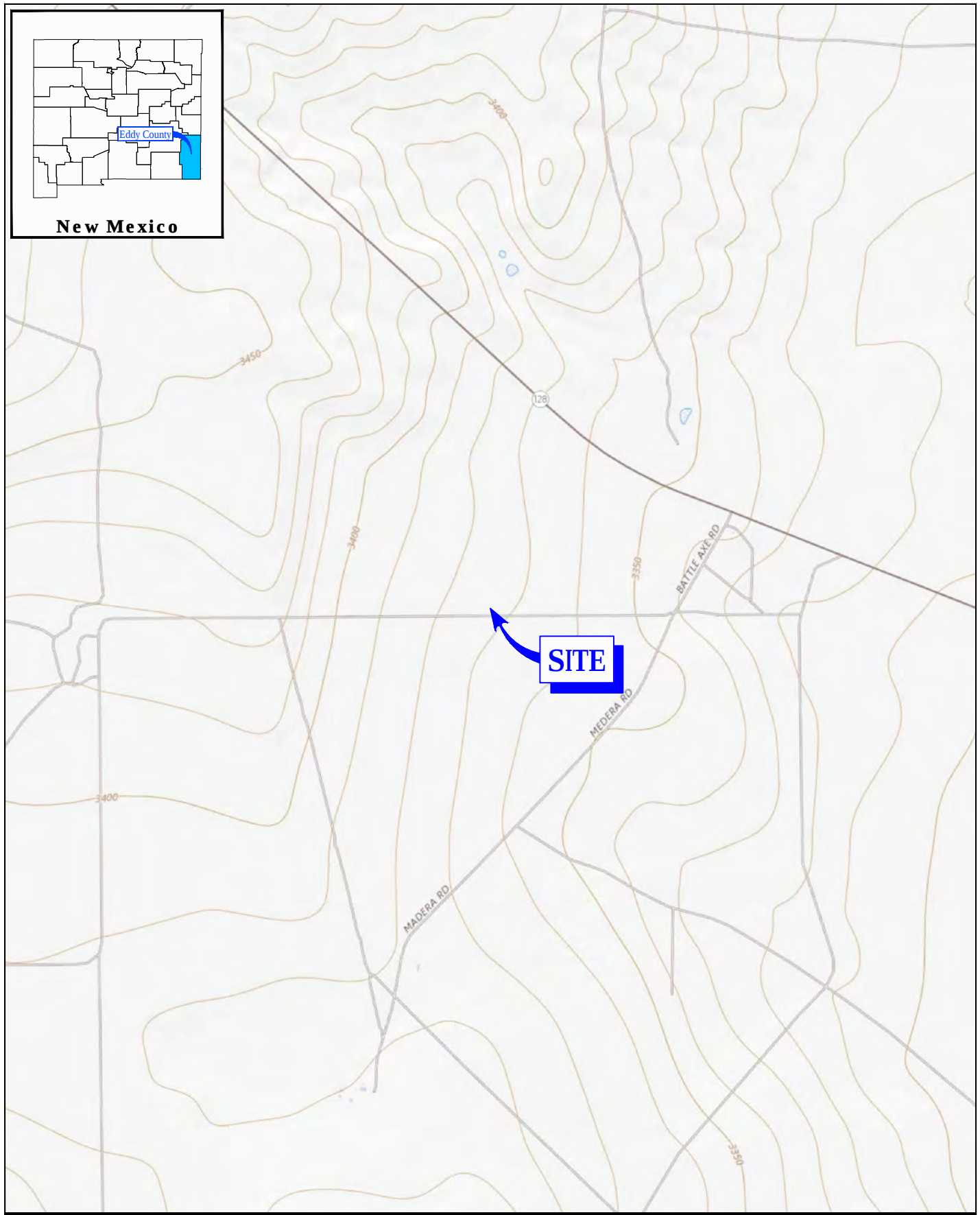
Tom Larson
Project Director

BH/ZC/1

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

cc: Amber Groves

Figures



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



PLAINS
LEA COUNTY, NEW MEXICO
ENDURANCE 6" UPSTREAM JACINTO TIE IN

SITE LOCATION MAP

Project No. 12566934
Date December 2021

FIGURE 1

Filename: \\ghdnet\ghd\US\Midland\Projects\562\12566934\Digital_Design\ACAD\Figures\RPT001\12566934-GHD-0000-RPT-EN-0101_DL-001.dwg

Data Source: USGS 7.5 Minute Quad "Woodley Flat and Custer Mountain, New Mexico"
Lat/Long: 32.181559° North, 103.421514° West

Sample ID	Sample Date	Depth (feet bgs)	Benzene	BTEX	TPH	Chloride
					Total GRO/DRO/MRO	
			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
			Table 1 Closure Criteria for Soils <50 feet Depth to			
10 mg/Kg	50 mg/Kg	100 mg/Kg	600 mg/Kg			
Initial Assessment Samples - Test Pit						
TP1-22'	11/2/21	22	163	2,500	32,100	63.3
TP1-28'	11/2/21	28	115	2,370	35,000	57.1
TP1-31'	11/2/21	31	160	1,860	41,100	104
TP2-2'	11/19/21	2	<0.000383 U	<0.00100 U	16.7 J	17.1
TP2-4'	11/19/21	4	<0.000384 U	<0.00101 U	17.1 J	20.5
TP2-6'	11/19/21	6	<0.000387 U	<0.00101 U	58.7	19.9
TP2-10'	11/19/21	10	<0.000387 U	<0.00102 U	17.8 J	35.2
TP2-12'	11/19/21	12	<0.000383 U	<0.00101 U	17.4 J B	35.8
Confirmation Samples (Sidewall Samples)						
SW-1	11/15/21	-	0.000463 J	0.00125 J	18.2 J	32.2
SW-2	11/15/21	-	<0.000386 U	<0.00101 U	17.9 J	27.7
SW-3	11/15/21	-	<0.000386 U	<0.00101 U	16.3 J	37.5
SW-4	11/15/21	-	<0.000388 U	0.00893	18.3 J	82.5
SW-5	11/18/21	-	<0.000388 U F1	<0.00102 U	31.2 J	34.1
SW-6	11/18/21	-	0.00107 J	0.00350 J	<15.0 U	86.0
SW-7	11/18/21	-	<0.000383 U	<0.00101 U	<15.0 U	49.3
SW-8	11/18/21	-	<0.000384 U	0.00147 J	288	23.0
SW-8A	11/19/21	-	<0.000383 U	<0.00101 U	65.1	92.6
SW-9	11/18/21	-	<0.000386 U	0.00128 J	38.1 J	110
SW-10	11/18/21	-	0.00114 J	0.00340 J	82.9	96.2
SW-11	11/18/21	-	0.000391 J	0.00212 J	45.2 J	109
SW-12	11/18/21	-	<0.000384 U	0.00266 J	72	50.4
SW-13	11/18/21	-	<0.000383 U	0.00113 J	318	77.6
SW-13 A	11/19/21	-	<0.000385 U	<0.00101 U	23.7 J	32.9
SW-14	11/18/21	-	0.000450 J	0.00114 J	17.4 J	17.3
SW-15	11/18/21	-	<0.000383 U	<0.00100 U	26.0 J	84.3
SW-16	11/19/21	-	<0.000388 U	<0.00102 U	63.4	19.2
SW-17	11/19/21	-	<0.000384 U	<0.00101 U	17.0 J	69.2
SW-18	11/19/21	-	<0.000383 U	<0.00101 U	16.0 J	29.0
SW-19	11/19/21	-	<0.000386 U	<0.00101 U	40.3 J	19.2
SW-20	11/19/21	-	<0.000383 U	<0.00101 U	21.5 J	45.0
SW-21	11/19/21	-	<0.000383 U	<0.00101 U	17.2 J B	19.6
SW-22	11/19/21	-	<0.000384 U	<0.00101 U	17.8 J B	20.3
SW-23	11/19/21	-	<0.000383 U	<0.00100 U	30.9 J	82.9
SW-24	11/19/21	-	<0.000381 U	<0.00100 U	28.9 J	42.3
SW-25	11/19/21	-	<0.000387 U	<0.00101 U	18.1 J	51.5
SW-26	11/19/21	-	<0.000386 U	<0.00101 U	17.7 J	102
SW-27	11/19/21	-	<0.000383 U	<0.00101 U	27.5 J	17.9
Confirmation Samples (Bottom Hole Samples)						
BH-1	11/19/21	-	<0.000385 U	<0.00101 U	134	66

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. Yellow shaded cells indicate analytical samples that exceed the NMOC 1 Closure Criteria for the site.

LEGEND

EXCAVATED AREA

TEST PIT LOCATION

DEPTH DEPTH OF SAMPLE (FT)

BTEX BENZENE, TOLUENE, ETHYLBENZENE & XYLENES CONCENTRATION (MG/KG)

TPH TOTAL PETROLEUM HYDROCARBONS CONCENTRATION (MG/KG)

SAMPLE POINT EXCAVATED

INDICATES SIDE WALL COMPOSITE SAMPLE

INDICATES SIDE WALL COMPOSITE SAMPLE

- NOTES:
- RESULTS IN MILLIGRAMS PER KILOGRAM (MG/KG).

SEE TABLE 1 FOR FULL ANALYTICAL RESULTS/DETAILS.

YELLOW SHADED CELLS INDICATE EXCEEDANCE.



01530ft

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

N

GHD

PLAINS
LEA COUNTY, NEW MEXICO
ENDURANCE 6" UPSTREAM JACINTO TIE IN

SITE PLAN AND
SOIL ANALYTICAL RESULTS MAP

Project No. 12566934
Date December 2021

FIGURE 2

Tables

Table 1
Summary of Soil Analytical Data
Endurance 6" Upstream Jacinto Tie In
Plains Pipeline, L.P.
Lea County, New Mexico

Sample ID	Sample Date	Depth (feet bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH				Chloride
			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	(mg/Kg)
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC									
			10 mg/Kg	---	---	---	50 mg/Kg	---	---	---	100 mg/Kg	600 mg/Kg
Initial Assessment Samples - Hand Auger												
AH1-1'	10/26/2021	1	338	1,020	89.1	267	1,720	10,500 *1	9,190 B	<75.0	19,700	13.3
AH1-3'	10/26/2021	3	197	769	88.3	303	1,350	12,100 *1	13,600 B	<74.7	25,700	17.2
AH2-2'	10/26/2021	2	268	976	113	389	1,750	12,200 *1	13,500 B	<74.9	25,700	6.98
AH2-4'	10/26/2021	4	705	1,860	139	1,050	3,760	14,800 *1	14,500 B	<74.9	29,300	6.12
Initial Assessment Samples - Test Pit												
TP1-22'	11/2/21	22	163	1,930 b	85.4	319	2,500	16,100	14,800 *	1,150	32,100	63.3
TP1-28'	11/2/21	28	115	1,910 b	72.0	276	2,370	16,900	16,600 *	1,470	35,000	57.1
TP1-31'	11/2/21	31	160	1,300	82.0	314	1,860	20,800	18,700 *	1,640	41,100	104
TP2-2'	11/19/21	2	<0.000383 U	<0.000453 U	<0.000562 U	<0.00100 U	<0.00100 U	<15.0 U	16.7 J B	<15.0 U	16.7 J	17.1
TP2-4'	11/19/21	4	<0.000384 U	<0.000455 U	<0.000564 U	<0.00101 U	<0.00101 U	<15.0 U	17.1 J B	<15.0 U	17.1 J	20.5
TP2-6'	11/19/21	6	<0.000387 U	<0.000458 U	<0.000567 U	<0.00101 U	<0.00101 U	41.9 J	16.8 J B	<14.9 U	58.7	19.9
TP2-10'	11/19/21	10	<0.000387 U	<0.000459 U	<0.000568 U	<0.00102 U	<0.00102 U	<15.0 U	17.8 J B	<15.0 U	17.8 J	35.2
TP2-12'	11/19/21	12	<0.000383 U	<0.000454 U	<0.000563 U	<0.00101 U	<0.00101 U	<15.0 U	17.4 J B	<15.0 U	17.4 J B	35.8
Confirmation Samples (Sidewall Samples)												
SW-1	11/15/21	-	0.000463 J	<0.000453	<0.000562	<0.00100	0.00125 J	<15.0 U	18.2 J*	<15.0 U	18.2 J	32.2
SW-2	11/15/21	-	<0.000386 U	<0.000457 U	<0.000566 U	<0.00101 U	<0.00101 U	<15.0 U	17.9 J*	<15.0 U	17.9 J	27.7
SW-3	11/15/21	-	<0.000386 U	<0.000457 U	<0.000566U	<0.00101 U	<0.00101 U	<15.0 U	16.3 J*	<15.0 U	16.3 J	37.5
SW-4	11/15/21	-	<0.000388 U	0.00197 J	0.000624 J	0.00634	0.00893	<15.0 U	18.3 J*	<15.0 U	18.3 J	82.5
SW-5	11/18/21	-	<0.000388 U F1	<0.000460 U F1	<0.000570 U F1	<0.00102 U F1	<0.00102 U	<15.0 U	31.2 J	<15.0 U	31.2 J	341
SW-6	11/18/21	-	0.00107 J	0.000580 J	<0.00561 U	0.00185 J	0.00350 J	<15.0 U	<15.0 U	<15.0 U	<15.0 U	86.0
SW-7	11/18/21	-	<0.000383 U	<0.000454 U	<0.000563 U	<0.00101 U	<0.00101 U	<15.0 U	<15.0 U	<15.0 U	<15.0 U	49.3
SW-8	11/18/21	-	<0.000384 U	<0.00455 U	<0.00564 U	0.00147 J	0.00147 J	288	<15.0 U	<15.0 U	288	23.0
SW-8A	12/3/21	-	<0.000383 U	<0.000454 U	<0.000563 U	<0.00101 U	<0.00101 U	<15.0 U	26.4 J	38.7 J	65.1	92.6
SW-9	11/18/21	-	<0.00386 U	<0.000457 U	<0.000566 U	0.00128 J	0.00128 J	<14.9	38.1 J	<14.9 U	38.1 J	110
SW-10	11/18/21	-	0.00114 J	0.00147 J	0.000787 J	<0.00101 U	0.00340 J	<15.0 U	82.9	<15.0 U	82.9	96.2
SW-11	11/18/21	-	0.000391 J	0.000471 J	<0.000562 U	0.00126 J	0.00212 J	<14.9 U	45.2 J	<14.9 U	45.2 J	109
SW-12	11/18/21	-	<0.000384 U	0.000987 J	<0.000564 U	0.000167 J	0.00266 J	<15.0 U	72.3	<15.0 U	72	50.4
SW-13	11/18/21	-	<0.000383 U	<0.000454 U	0.00113 J	<0.00101 U	0.00113 J	<15.0 U	318	<15.0 U	318	77.6
SW-13 A	12/3/21	-	<0.000385 U	<0.000456 U	<0.000565 U	<0.00101 U	<0.00101 U	<15.0 U	23.7 J	<15.0 U	23.7 J	32.9
SW-14	11/18/21	-	0.000450 J	0.000688 J	<0.000564 U	<0.00101 U	0.00114 J	<15.0 U	17.4 J B	<15.0 U	17.4 J	17.3
SW-15	11/18/21	-	<0.000383 U	<0.000453 U	<0.000562 U	<0.00100 U	<0.00100 U	<14.9 U	26.0 J B	<14.9 U	26.0 J	84.3

Table 1
Summary of Soil Analytical Data
Endurance 6" Upstream Jacinto Tie In
Plains Pipeline, L.P.
Lea County, New Mexico

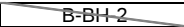
Sample ID	Sample Date	Depth (feet bgs)	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH				Chloride
			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	GRO (C6-C10)	DRO (C10-C28)	MRO (C28-C35)	Total GRO/DRO/MRO	(mg/Kg)
			Table I Closure Criteria for Soils <50 feet Depth to Groundwater 19.15.29 NMAC									
			10 mg/Kg	---	---	---	50 mg/Kg	---	---	---	100 mg/Kg	600 mg/Kg
SW-16	11/19/21	-	<0.000388 U	<0.000460 U	<0.000570 U	<0.00102 U	<0.00102 U	26.4 J	37.0 B	<15.0 U	63.4	19.2
SW-17	11/19/21	-	<0.000384 U	<0.000455 U	<0.000564 U	<0.00101 U	<0.00101 U	17.0 J	<15.0 U	<15.0 U	17.0 J	69.2
SW-18	11/19/21	-	<0.000383 U	<0.000454 U	<0.000563 U	<0.00101 U	<0.00101 U	<15.0 U	16.0 J B	<15.0	16.0 J	29.0
SW-19	11/19/21	-	<0.000386 U	<0.000457 U	<0.000566 U	<0.00101 U	<0.00101 U	15.8 J	24.5 J B	<15.0 U	40.3 J	19.2
SW-20	11/19/21	-	<0.000383 U	<0.000454 U	<0.000563 U	<0.00101 U	<0.00101 U	<15.0 U	21.5 J B	<15.0 U	21.5 J	45.0
SW-21	11/19/21	-	<0.000383 U	<0.000454 U	<0.000563 U	<0.00101 U	<0.00101 U	<14.9 U	17.2 J B	<14.9 U	17.2 J B	19.6
SW-22	11/19/21	-	<0.000384 U	<0.000455 U	<0.000564 U	<0.00101 U	<0.00101 U	<15.0 U	17.8 J B	<15.0 U	17.8 J B	20.3
SW-23	11/19/21	-	<0.000383 U	<0.000453 U	<0.000562 U	<0.00100 U	<0.00100 U	<14.9 U	30.9 J B	<14.9 U	30.9 J	82.9
SW-24	11/19/21	-	<0.000381 U	<0.000451 U	<0.000559 U	<0.00100 U	<0.00100 U	<15.0 U	28.9 J B	<15.0	28.9 J	42.3
SW-25	11/19/21	-	<0.000387 U	<0.000458 U	<0.000567 U	<0.00101 U	<0.00101 U	18.1 J	<15.0 U	<15.0 U	18.1 J	51.5
SW-26	11/19/21	-	<0.000386 U	<0.000457 U	<0.000566 U	<0.00101 U	<0.00101 U	<15.0 U	17.7 J B	<15.0 U	17.7 J	102
SW-27	11/19/21	-	<0.000383 U	<0.000454 U	<0.000563 U	<0.00101 U	<0.00101 U	<15.0 U	27.5 J B	<15.0 U	27.5 J	17.9
Confirmation Samples (Bottom Hole Samples)												
BH-1	11/19/21	-	<0.000385 U	<0.000456 U	<0.000565 U	<0.00101 U	<0.00101 U	18.0 J	98.5 B	17.3 J	134	66
Unimpacted Soil Piles												
Clean Pile	12/8/21	-	<0.000387 U	<0.000459 U	<0.000568 U	<0.00102 U	<0.00102 U	<15.0 U	<15.0 U	<15.0 U	<15.0 U	55
Clean Pile 2	12/10/21	-	<0.000383 U	<0.00454 U	<0.000563 U	<0.00101 U	<0.00101 U	<15.0 U	87.8	<15.0 U	87.8	61.8 F1
Clean Pile 3	12/10/21	-	<0.000381 U	<0.000451 U	<0.000559 U	<0.00100 U	<0.00100 U	<15.0 U	<15.0 U	<15.0 U	<15.0 U	<0.850 U

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.

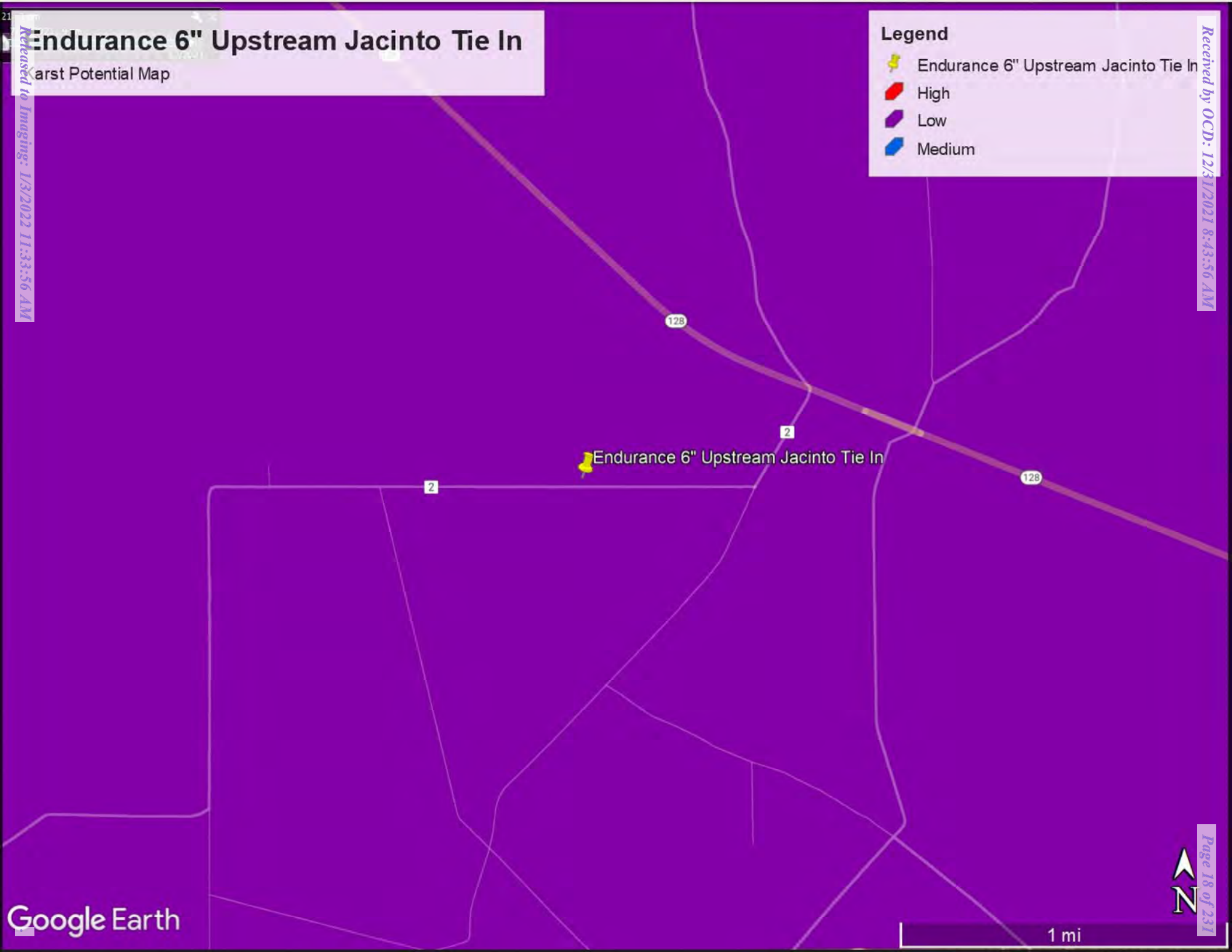
5. TPH analyses by EPA Method SW 8015 Mod.
6. GRO/DRO/MRO = Gasoline/Diesel/Motor Oil
7. Yellow shaded cells indicate analytical samples that exceed the NMOC 19.15.29.12 Table 1 Closure Criteria for the site.
8. J - the target analytes was positively identified below the quantitation limit and above the detection limit.

9. * - RPD of the LCS and LCSD exceeds the control limits.
10. b - The compound was found in the blank and sample.
11. *1 - LCS/LCSD RPD exceeds control limits.

 Sample Point Excavated

Attachment A

Site Characterization Documentation



Endurance 6" Upstream Jacinto Tie In

Karst Potential Map

Legend



Endurance 6" Upstream Jacinto Tie In



High



Low



Medium

Released to Imaging: 1/3/2022 11:33:56 AM

Received by OCD: 12/31/2021 8:43:56 AM

OSE POD Location Map



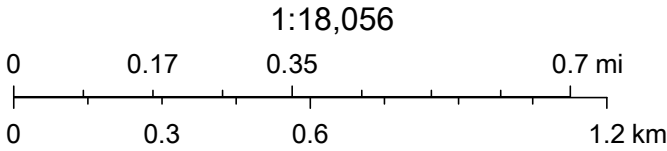
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GIS WATERS PODs OSE District Boundary SiteBoundaries

- Active

● Pending
- Water Right Regulations

Closure Area



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

Endurance 6" Upstream Jacinto Tie In

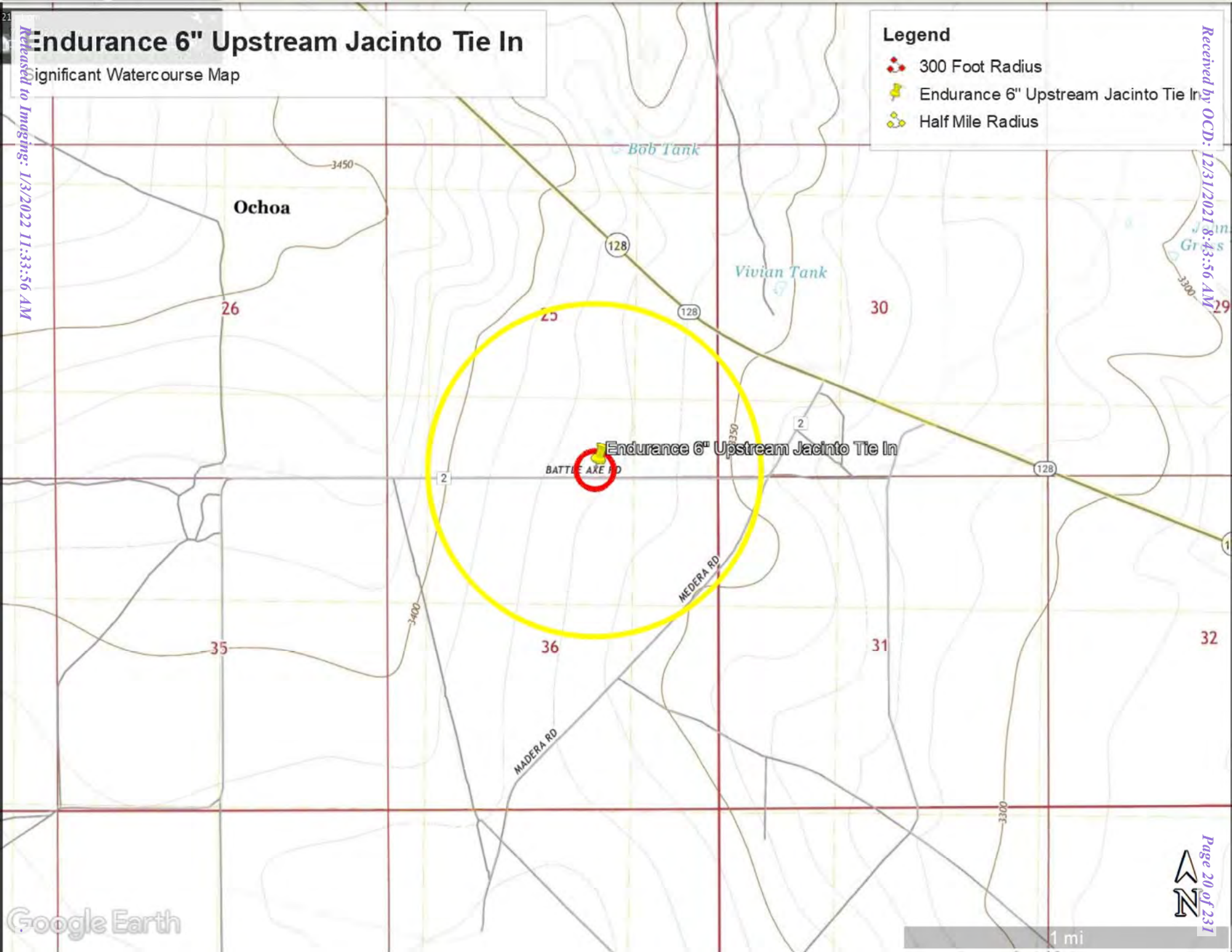
Significant Watercourse Map

Legend

 300 Foot Radius

 Endurance 6" Upstream Jacinto Tie In

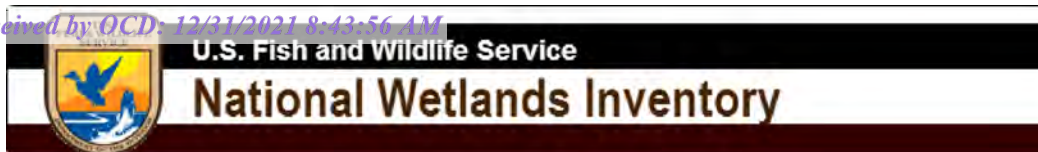
 Half Mile Radius



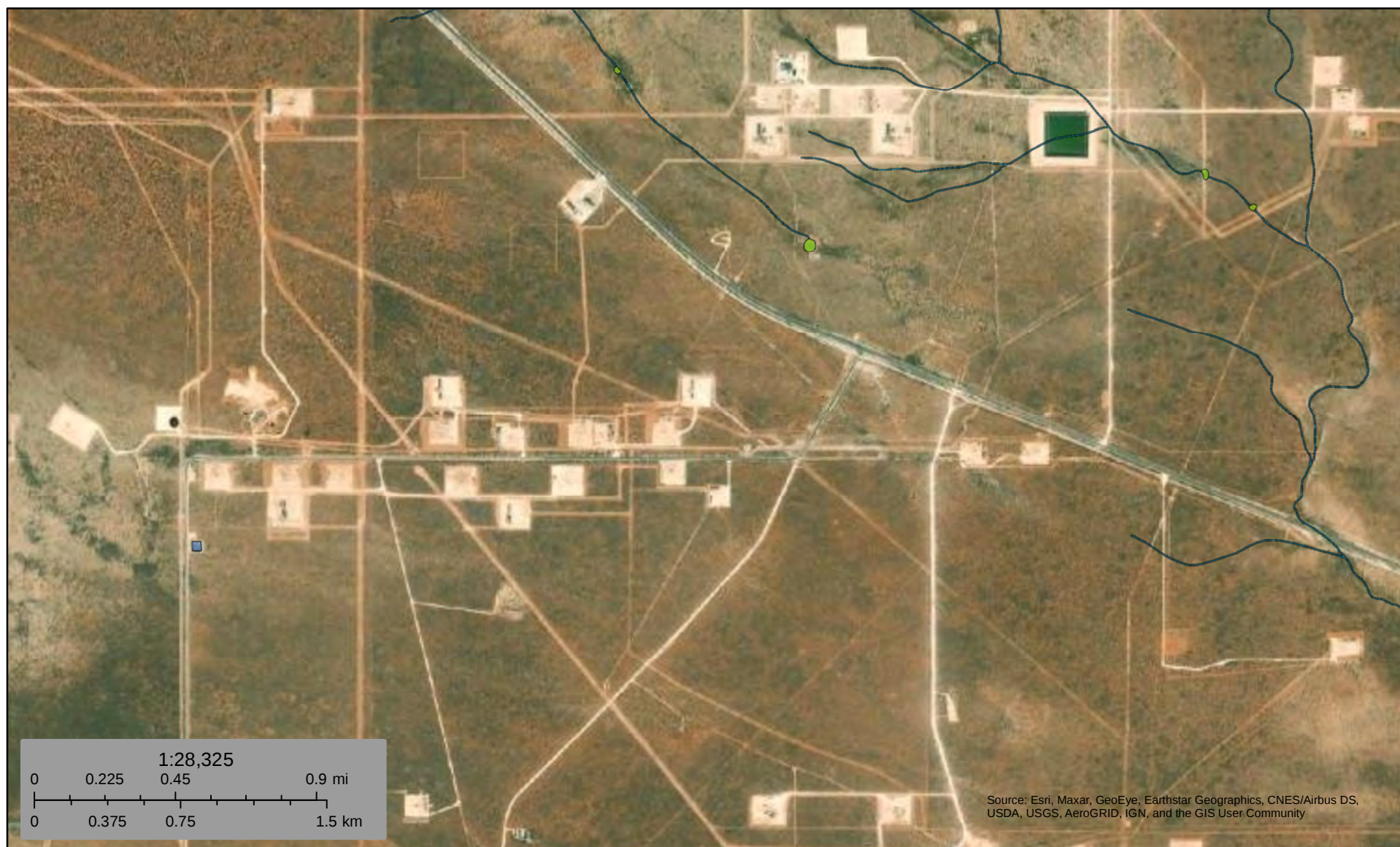
Released to Imaging: 1/3/2022 11:33:56 AM

Received by OCD: 12/31/2021 8:43:56 AM





Endurance 6" Upstream Jacinto Tie In



December 14, 2021

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 Flood Hazard Layer FIRMette



103°25'36"W 32°11'9"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000 103°24'59"W 32°10'38"N

Released to Imaging: 1/3/2022 1:33:56 AM

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 Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped



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 12/14/2021 at 4:46 PM 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.

Attachment B Photographic Log



Photo 1 – Excavation Facing West



Photo 2 – Excavation Facing South



**Site Photograph
Plains Endurance 6" Upstream
Jacinto Tie In Release Site.**

GHD | Report for Plains | 12566934



Photo 3 – Excavation Facing Southeast



Photo 4 – Plains Riser and Pipeline on West Side of Excavation



Site Photograph
Plains Endurance 6" Upstream
Jacinto Tie In Release Site.

GHD | Report for Plains | 12566934



Photo 5 – Excavation Facing North with Conoco Phillips Pad in the Background



**Site Photograph
Plains Endurance 6" Upstream
Jacinto Tie In Release Site.**

GHD | Report for Plains | 12566934

Attachment C

Laboratory Analytical Reports and Chain-of-Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-7702-1

Laboratory Sample Delivery Group: Eddy County NM
Client Project/Site: Endurance 6"

For:

GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

Authorized for release by:

11/4/2021 8:39:48 PM

Jessica Kramer, Project Manager
(432)704-5440

jessica.kramer@eurofinset.com

Designee for

Debbie Simmons, Project Manager
(832)986-6768

debbie.simmons@eurofinset.com

LINKS

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results through

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-7702-1
SDG: Eddy County NM

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Eurofins Xenco, Midland

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

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

Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Job ID: 880-7702-1**Laboratory: Eurofins Xenco, Midland****Narrative****Job Narrative
880-7702-1****Receipt**

The samples were received on 10/28/2021 11:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: AH1-1' (880-7702-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-11111 and analytical batch 880-11259 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: AH1-1' (880-7702-1), AH1-3' (880-7702-2), AH2-2' (880-7702-3), AH2-4' (880-7702-4), (CCV 880-11259/51), (MB 880-11111/5-A) and (890-1502-A-41-C). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-11258 and analytical batch 880-11259 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: (MB 880-11258/5-A) and (890-1499-A-10-F). Evidence of matrix interferences is not obvious.

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Client Sample ID: AH1-1'

Lab Sample ID: 880-7702-1

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	338		9.94	1.91	mg/Kg		11/02/21 15:13	11/04/21 10:46	5000
Toluene	1020		9.94	2.27	mg/Kg		11/02/21 15:13	11/04/21 10:46	5000
Ethylbenzene	89.1		0.994	0.281	mg/Kg		11/02/21 15:13	11/03/21 20:52	500
m-Xylene & p-Xylene	266		1.99	0.502	mg/Kg		11/02/21 15:13	11/03/21 20:52	500
o-Xylene	8.94		0.202	0.0347	mg/Kg		11/01/21 12:47	11/02/21 13:54	100
Xylenes, Total	267		1.99	0.502	mg/Kg		11/02/21 15:13	11/03/21 20:52	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	11/01/21 12:47	11/02/21 13:54	100
1,4-Difluorobenzene (Surr)	52	S1-	70 - 130	11/01/21 12:47	11/02/21 13:54	100

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1720		1.99	0.502	mg/Kg			11/01/21 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	19700		250	75.0	mg/Kg			11/03/21 08:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	10500	*1	250	75.0	mg/Kg		11/01/21 14:28	11/02/21 05:10	5
Diesel Range Organics (Over C10-C28)	9190	B	250	75.0	mg/Kg		11/01/21 14:28	11/02/21 05:10	5
Oil Range Organics (Over C28-C36)	<75.0	U	250	75.0	mg/Kg		11/01/21 14:28	11/02/21 05:10	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	151	S1+	70 - 130	11/01/21 14:28	11/02/21 05:10	5
o-Terphenyl	84		70 - 130	11/01/21 14:28	11/02/21 05:10	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.3		4.99	0.857	mg/Kg			11/03/21 17:33	1

Client Sample ID: AH1-3'

Lab Sample ID: 880-7702-2

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	197		1.00	0.193	mg/Kg		11/02/21 15:13	11/03/21 21:20	500
Ethylbenzene	88.3		1.00	0.284	mg/Kg		11/02/21 15:13	11/03/21 21:20	500
m-Xylene & p-Xylene	290		2.01	0.507	mg/Kg		11/02/21 15:13	11/03/21 21:20	500
o-Xylene	5.34		0.200	0.0345	mg/Kg		11/01/21 12:47	11/02/21 14:20	100
Xylenes, Total	303		2.01	0.507	mg/Kg		11/02/21 15:13	11/03/21 21:20	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	80		70 - 130	11/01/21 12:47	11/02/21 14:20	100
1,4-Difluorobenzene (Surr)	78		70 - 130	11/01/21 12:47	11/02/21 14:20	100

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Client Sample ID: AH1-3'

Lab Sample ID: 880-7702-2

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Method: 8021B - Volatile Organic Compounds (GC) - DL5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	769		10.0	2.29	mg/Kg		11/02/21 15:13	11/04/21 11:13	5000

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1350		2.01	0.507	mg/Kg			11/01/21 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	25700		249	74.7	mg/Kg			11/03/21 08:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	12100	*1	249	74.7	mg/Kg		11/01/21 14:28	11/02/21 05:38	5
Diesel Range Organics (Over C10-C28)	13600	B	249	74.7	mg/Kg		11/01/21 14:28	11/02/21 05:38	5
Oil Range Organics (Over C28-C36)	<74.7	U	249	74.7	mg/Kg		11/01/21 14:28	11/02/21 05:38	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	175	S1+	70 - 130				11/01/21 14:28	11/02/21 05:38	5
o-Terphenyl	114		70 - 130				11/01/21 14:28	11/02/21 05:38	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.2		4.98	0.855	mg/Kg			11/03/21 17:40	1

Client Sample ID: AH2-2'

Lab Sample ID: 880-7702-3

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	268		10.0	1.93	mg/Kg		11/02/21 15:13	11/04/21 11:39	5000
Toluene	976		10.0	2.28	mg/Kg		11/02/21 15:13	11/04/21 11:39	5000
Ethylbenzene	113		1.00	0.283	mg/Kg		11/02/21 15:13	11/03/21 21:48	500
m-Xylene & p-Xylene	382		2.00	0.506	mg/Kg		11/02/21 15:13	11/03/21 21:48	500
o-Xylene	14.8		0.201	0.0345	mg/Kg		11/01/21 12:47	11/02/21 14:47	100
Xylenes, Total	389		2.00	0.506	mg/Kg		11/02/21 15:13	11/03/21 21:48	500

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	73		70 - 130				11/01/21 12:47	11/02/21 14:47	100
1,4-Difluorobenzene (Surr)	87		70 - 130				11/01/21 12:47	11/02/21 14:47	100

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1750		2.00	0.506	mg/Kg			11/01/21 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	25700		250	74.9	mg/Kg			11/03/21 08:46	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Client Sample ID: AH2-2'

Lab Sample ID: 880-7702-3

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	12200	*1	250	74.9	mg/Kg		11/01/21 14:28	11/02/21 06:05	5
Diesel Range Organics (Over C10-C28)	13500	B	250	74.9	mg/Kg		11/01/21 14:28	11/02/21 06:05	5
Oil Range Organics (Over C28-C36)	<74.9	U	250	74.9	mg/Kg		11/01/21 14:28	11/02/21 06:05	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	173	S1+	70 - 130	11/01/21 14:28	11/02/21 06:05	5
o-Terphenyl	103		70 - 130	11/01/21 14:28	11/02/21 06:05	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.98		4.98	0.855	mg/Kg			11/03/21 17:47	1

Client Sample ID: AH2-4'

Lab Sample ID: 880-7702-4

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	705		9.98	1.92	mg/Kg		11/02/21 15:13	11/04/21 12:06	5000
Toluene	1860		9.98	2.28	mg/Kg		11/02/21 15:13	11/04/21 12:06	5000
Ethylbenzene	139		0.998	0.282	mg/Kg		11/02/21 15:13	11/03/21 22:15	500
m-Xylene & p-Xylene	1040		20.0	5.04	mg/Kg		11/02/21 15:13	11/04/21 12:06	5000
o-Xylene	18.1		0.201	0.0345	mg/Kg		11/01/21 12:47	11/02/21 15:13	100
Xylenes, Total	1050		20.0	5.04	mg/Kg		11/02/21 15:13	11/04/21 12:06	5000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	82		70 - 130	11/01/21 12:47	11/02/21 15:13	100
1,4-Difluorobenzene (Surr)	85		70 - 130	11/01/21 12:47	11/02/21 15:13	100

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	3760		20.0	5.04	mg/Kg			11/01/21 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	29300		250	74.9	mg/Kg			11/03/21 08:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	14800	*1	250	74.9	mg/Kg		11/01/21 14:28	11/02/21 06:32	5
Diesel Range Organics (Over C10-C28)	14500	B	250	74.9	mg/Kg		11/01/21 14:28	11/02/21 06:32	5
Oil Range Organics (Over C28-C36)	<74.9	U	250	74.9	mg/Kg		11/01/21 14:28	11/02/21 06:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	183	S1+	70 - 130	11/01/21 14:28	11/02/21 06:32	5
o-Terphenyl	105		70 - 130	11/01/21 14:28	11/02/21 06:32	5

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Client Sample ID: AH2-4'
Date Collected: 10/26/21 00:00
Date Received: 10/28/21 11:50

Lab Sample ID: 880-7702-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.12		4.95	0.850	mg/Kg			11/03/21 17:54	1

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

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-7702-1	AH1-1'	107	52 S1-
880-7702-2	AH1-3'	80	78
880-7702-3	AH2-2'	73	87
880-7702-4	AH2-4'	82	85
880-7765-A-21-A MS	Matrix Spike	73	194 S1+
880-7765-A-21-B MSD	Matrix Spike Duplicate	72	231 S1+
890-1499-A-10-D MS	Matrix Spike	81	200 S1+
890-1499-A-10-E MSD	Matrix Spike Duplicate	87	250 S1+
890-1502-A-41-A MS	Matrix Spike	66 S1-	179 S1+
890-1502-A-41-B MSD	Matrix Spike Duplicate	70	216 S1+
LCS 880-11111/1-A	Lab Control Sample	87	223 S1+
LCS 880-11123/1-A	Lab Control Sample	83	207 S1+
LCS 880-11258/1-A	Lab Control Sample	84	137 S1+
LCSD 880-11258/2-A	Lab Control Sample Dup	77	177 S1+
MB 880-11059/5-A	Method Blank	63 S1-	133 S1+
MB 880-11111/5-A	Method Blank	58 S1-	189 S1+
MB 880-11123/5-A	Method Blank	65 S1-	192 S1+
MB 880-11258/5-A	Method Blank	54 S1-	182 S1+
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1	DFBZ1
LCSD 880-11111/2-A	Lab Control Sample Dup		
LCSD 880-11123/2-A	Lab Control Sample Dup		
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-7562-A-17-I MS	Matrix Spike	87	88
880-7562-A-17-J MSD	Matrix Spike Duplicate	87	89
880-7702-1	AH1-1'	151 S1+	84
880-7702-2	AH1-3'	175 S1+	114
880-7702-3	AH2-2'	173 S1+	103
880-7702-4	AH2-4'	183 S1+	105
LCS 880-11155/2-A	Lab Control Sample	81	92
LCSD 880-11155/3-A	Lab Control Sample Dup	76	86
MB 880-11155/1-A	Method Blank	92	105

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

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

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11059/5-A

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11059

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/01/21 10:32	11/01/21 13:19	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/01/21 10:32	11/01/21 13:19	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/01/21 10:32	11/01/21 13:19	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/01/21 10:32	11/01/21 13:19	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/01/21 10:32	11/01/21 13:19	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/01/21 10:32	11/01/21 13:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	63	S1-	70 - 130	11/01/21 10:32	11/01/21 13:19	1
1,4-Difluorobenzene (Surr)	133	S1+	70 - 130	11/01/21 10:32	11/01/21 13:19	1

Lab Sample ID: MB 880-11111/5-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11111

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/01/21 12:11	11/04/21 01:52	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/01/21 12:11	11/04/21 01:52	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/01/21 12:11	11/04/21 01:52	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/01/21 12:11	11/04/21 01:52	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/01/21 12:11	11/04/21 01:52	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/01/21 12:11	11/04/21 01:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	58	S1-	70 - 130	11/01/21 12:11	11/04/21 01:52	1
1,4-Difluorobenzene (Surr)	189	S1+	70 - 130	11/01/21 12:11	11/04/21 01:52	1

Lab Sample ID: LCS 880-11111/1-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11111

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1068		mg/Kg		107	70 - 130
Toluene	0.100	0.1000		mg/Kg		100	70 - 130
Ethylbenzene	0.100	0.08895		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1848		mg/Kg		92	70 - 130
o-Xylene	0.100	0.1111		mg/Kg		111	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	223	S1+	70 - 130

Lab Sample ID: LCSD 880-11111/2-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11111

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1167		mg/Kg					

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-11111/2-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11111

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.1109		mg/Kg					
Ethylbenzene	0.100	0.1068		mg/Kg					
m-Xylene & p-Xylene	0.200	0.2116		mg/Kg					
o-Xylene	0.100	0.1243		mg/Kg					

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)			
1,4-Difluorobenzene (Surr)			

Lab Sample ID: 890-1502-A-41-A MS

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11111

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00110	J F2 F1	0.101	0.01309	F1	mg/Kg		12	70 - 130		
Toluene	0.000696	J F2 F1	0.101	0.005176	F1	mg/Kg		4	70 - 130		
Ethylbenzene	0.000614	J F2 F1	0.101	0.006767	F1	mg/Kg		6	70 - 130		
m-Xylene & p-Xylene	0.00105	J F1	0.202	<0.00102	U F1	mg/Kg		0	70 - 130		
o-Xylene	0.000559	J F2 F1	0.101	0.01517	F1	mg/Kg		14	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	66	S1-	70 - 130
1,4-Difluorobenzene (Surr)	179	S1+	70 - 130

Lab Sample ID: 890-1502-A-41-B MSD

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 11111

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00110	J F2 F1	0.0994	0.02353	F2 F1	mg/Kg		23	70 - 130	57	35
Toluene	0.000696	J F2 F1	0.0994	0.01239	F2 F1	mg/Kg		12	70 - 130	82	35
Ethylbenzene	0.000614	J F2 F1	0.0994	0.01841	F2 F1	mg/Kg		18	70 - 130	92	35
m-Xylene & p-Xylene	0.00105	J F1	0.199	0.006042	F1	mg/Kg		3	70 - 130	NC	35
o-Xylene	0.000559	J F2 F1	0.0994	0.03039	F2 F1	mg/Kg		30	70 - 130	67	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	70		70 - 130
1,4-Difluorobenzene (Surr)	216	S1+	70 - 130

Lab Sample ID: MB 880-11123/5-A

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11123

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/01/21 12:47	11/02/21 03:23	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/01/21 12:47	11/02/21 03:23	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/01/21 12:47	11/02/21 03:23	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/01/21 12:47	11/02/21 03:23	1

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

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

Lab Sample ID: MB 880-11123/5-A

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11123

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/01/21 12:47	11/02/21 03:23	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/01/21 12:47	11/02/21 03:23	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	65	S1-	70 - 130				11/01/21 12:47	11/02/21 03:23	1
1,4-Difluorobenzene (Surr)	192	S1+	70 - 130				11/01/21 12:47	11/02/21 03:23	1

Lab Sample ID: LCS 880-11123/1-A

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11123

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1103		mg/Kg		110	70 - 130
Toluene	0.100	0.1108		mg/Kg		111	70 - 130
Ethylbenzene	0.100	0.1072		mg/Kg		107	70 - 130
m-Xylene & p-Xylene	0.200	0.2101		mg/Kg		105	70 - 130
o-Xylene	0.100	0.1216		mg/Kg		122	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	83		70 - 130				
1,4-Difluorobenzene (Surr)	207	S1+	70 - 130				

Lab Sample ID: LCSD 880-11123/2-A

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11123

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.1036		mg/Kg					
Toluene	0.100	0.001183	J	mg/Kg					
Ethylbenzene	0.100	0.09202		mg/Kg					
m-Xylene & p-Xylene	0.200	0.02481		mg/Kg					
o-Xylene	0.100	0.1013		mg/Kg					
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)									
1,4-Difluorobenzene (Surr)									

Lab Sample ID: 880-7765-A-21-A MS

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11123

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.000388	U F1	0.0998	0.03948	F1	mg/Kg		40	70 - 130
Toluene	<0.000460	U F1	0.0998	0.04463	F1	mg/Kg		45	70 - 130
Ethylbenzene	<0.000570	U F1	0.0998	0.07329		mg/Kg		73	70 - 130
m-Xylene & p-Xylene	<0.00102	U F1	0.200	0.1004	F1	mg/Kg		50	70 - 130
o-Xylene	<0.000347	U F1	0.0998	0.06218	F1	mg/Kg		62	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

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

Lab Sample ID: 880-7765-A-21-A MS

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11123

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	73		70 - 130
1,4-Difluorobenzene (Surr)	194	S1+	70 - 130

Lab Sample ID: 880-7765-A-21-B MSD

Matrix: Solid

Analysis Batch: 11027

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 11123

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.000388	U F1	0.100	0.04279	F1	mg/Kg		43	70 - 130	8	35
Toluene	<0.000460	U F1	0.100	0.04136	F1	mg/Kg		41	70 - 130	8	35
Ethylbenzene	<0.000570	U F1	0.100	0.05184	F1	mg/Kg		52	70 - 130	34	35
m-Xylene & p-Xylene	<0.00102	U F1	0.201	0.09707	F1	mg/Kg		48	70 - 130	3	35
o-Xylene	<0.000347	U F1	0.100	0.05910	F1	mg/Kg		59	70 - 130	5	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	72		70 - 130
1,4-Difluorobenzene (Surr)	231	S1+	70 - 130

Lab Sample ID: MB 880-11258/5-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11258

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/02/21 15:13	11/03/21 12:01	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/02/21 15:13	11/03/21 12:01	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/02/21 15:13	11/03/21 12:01	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/02/21 15:13	11/03/21 12:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	54	S1-	70 - 130	11/02/21 15:13	11/03/21 12:01	1
1,4-Difluorobenzene (Surr)	182	S1+	70 - 130	11/02/21 15:13	11/03/21 12:01	1

Lab Sample ID: LCS 880-11258/1-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11258

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.1087		mg/Kg		109	70 - 130
Toluene	0.100	0.09796		mg/Kg		98	70 - 130
Ethylbenzene	0.100	0.08267		mg/Kg		83	70 - 130
m-Xylene & p-Xylene	0.200	0.1691		mg/Kg		85	70 - 130
o-Xylene	0.100	0.09889		mg/Kg		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

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

Lab Sample ID: LCS 880-11258/1-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11258

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,4-Difluorobenzene (Surr)	137	S1+	70 - 130

Lab Sample ID: LCSD 880-11258/2-A

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11258

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.100	0.1014		mg/Kg		101	70 - 130	7	35
Toluene			0.100	0.1035		mg/Kg		103	70 - 130	5	35
Ethylbenzene			0.100	0.09505		mg/Kg		95	70 - 130	14	35
m-Xylene & p-Xylene			0.200	0.1933		mg/Kg		97	70 - 130	13	35
o-Xylene			0.100	0.1102		mg/Kg		110	70 - 130	11	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	77		70 - 130
1,4-Difluorobenzene (Surr)	177	S1+	70 - 130

Lab Sample ID: 890-1499-A-10-D MS

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11258

	Sample	Sample									
Analyte	Result	Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	<0.000384	U	0.0994	0.09981		mg/Kg		100	70 - 130		
Toluene	<0.000455	U	0.0994	0.09309		mg/Kg		94	70 - 130		
Ethylbenzene	<0.000564	U	0.0994	0.07982		mg/Kg		80	70 - 130		
m-Xylene & p-Xylene	<0.00101	U F1	0.199	0.1570		mg/Kg		79	70 - 130		
o-Xylene	<0.000343	U	0.0994	0.09041		mg/Kg		91	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	81		70 - 130
1,4-Difluorobenzene (Surr)	200	S1+	70 - 130

Lab Sample ID: 890-1499-A-10-E MSD

Matrix: Solid

Analysis Batch: 11259

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 11258

	Sample	Sample									
Analyte	Result	Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.000384	U	0.101	0.08457		mg/Kg		84	70 - 130	17	35
Toluene	<0.000455	U	0.101	0.07932		mg/Kg		79	70 - 130	16	35
Ethylbenzene	<0.000564	U	0.101	0.07211		mg/Kg		72	70 - 130	10	35
m-Xylene & p-Xylene	<0.00101	U F1	0.202	0.1394	F1	mg/Kg		69	70 - 130	12	35
o-Xylene	<0.000343	U	0.101	0.08163		mg/Kg		81	70 - 130	10	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	87		70 - 130
1,4-Difluorobenzene (Surr)	250	S1+	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

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

Lab Sample ID: MB 880-11155/1-A

Matrix: Solid

Analysis Batch: 11030

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11155

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/01/21 14:28	11/01/21 21:24	1
Diesel Range Organics (Over C10-C28)	17.88	J	50.0	15.0	mg/Kg		11/01/21 14:28	11/01/21 21:24	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/01/21 14:28	11/01/21 21:24	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130				11/01/21 14:28	11/01/21 21:24	1
o-Terphenyl	105		70 - 130				11/01/21 14:28	11/01/21 21:24	1

Lab Sample ID: LCS 880-11155/2-A

Matrix: Solid

Analysis Batch: 11030

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11155

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	786.0		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	1000	812.9		mg/Kg		81	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	81		70 - 130				
o-Terphenyl	92		70 - 130				

Lab Sample ID: LCSD 880-11155/3-A

Matrix: Solid

Analysis Batch: 11030

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11155

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1123	*1	mg/Kg		112	70 - 130	35	20
Diesel Range Organics (Over C10-C28)	1000	856.1		mg/Kg		86	70 - 130	5	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	76		70 - 130						
o-Terphenyl	86		70 - 130						

Lab Sample ID: 880-7562-A-17-I MS

Matrix: Solid

Analysis Batch: 11030

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11155

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	18.7	J *1	997	980.3		mg/Kg		96	70 - 130
Diesel Range Organics (Over C10-C28)	22.0	J B	997	784.9		mg/Kg		77	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

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

Lab Sample ID: 880-7562-A-17-I MS

Matrix: Solid

Analysis Batch: 11030

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 11155

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-7562-A-17-J MSD

Matrix: Solid

Analysis Batch: 11030

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 11155

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	18.7	J *1	1000	983.7		mg/Kg		96	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	22.0	J B	1000	808.4		mg/Kg		79	70 - 130	3	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	87		70 - 130								
o-Terphenyl	89		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-10936/1-A

Matrix: Solid

Analysis Batch: 11209

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<0.858	U	5.00	0.858	mg/Kg			11/03/21 14:33	1	

Lab Sample ID: LCS 880-10936/2-A

Matrix: Solid

Analysis Batch: 11209

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	257.8		mg/Kg		103	90 - 110			

Lab Sample ID: LCSD 880-10936/3-A

Matrix: Solid

Analysis Batch: 11209

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD					%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	256.9		mg/Kg		103	90 - 110	0	20	

Lab Sample ID: 880-7699-A-2-E MS

Matrix: Solid

Analysis Batch: 11209

Client Sample ID: Matrix Spike

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	6060		2500	8475		mg/Kg		96	90 - 110	

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-7699-A-2-F MSD					Client Sample ID: Matrix Spike Duplicate							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 11209												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	6060		2500	8631		mg/Kg		103	90 - 110	2	20	

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

GC VOA

Analysis Batch: 11027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	8021B	11123
880-7702-2	AH1-3'	Total/NA	Solid	8021B	11123
880-7702-3	AH2-2'	Total/NA	Solid	8021B	11123
880-7702-4	AH2-4'	Total/NA	Solid	8021B	11123
MB 880-11059/5-A	Method Blank	Total/NA	Solid	8021B	11059
MB 880-11123/5-A	Method Blank	Total/NA	Solid	8021B	11123
LCS 880-11123/1-A	Lab Control Sample	Total/NA	Solid	8021B	11123
LCSD 880-11123/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11123
880-7765-A-21-A MS	Matrix Spike	Total/NA	Solid	8021B	11123
880-7765-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11123

Prep Batch: 11059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11059/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11111/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11111/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11111/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1502-A-41-A MS	Matrix Spike	Total/NA	Solid	5035	
890-1502-A-41-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 11123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	5035	
880-7702-2	AH1-3'	Total/NA	Solid	5035	
880-7702-3	AH2-2'	Total/NA	Solid	5035	
880-7702-4	AH2-4'	Total/NA	Solid	5035	
MB 880-11123/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11123/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11123/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-7765-A-21-A MS	Matrix Spike	Total/NA	Solid	5035	
880-7765-A-21-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	Total BTEX	
880-7702-2	AH1-3'	Total/NA	Solid	Total BTEX	
880-7702-3	AH2-2'	Total/NA	Solid	Total BTEX	
880-7702-4	AH2-4'	Total/NA	Solid	Total BTEX	

Prep Batch: 11258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	5035	
880-7702-2	AH1-3'	Total/NA	Solid	5035	
880-7702-2 - DL5	AH1-3'	Total/NA	Solid	5035	
880-7702-3	AH2-2'	Total/NA	Solid	5035	
880-7702-4	AH2-4'	Total/NA	Solid	5035	
MB 880-11258/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11258/1-A	Lab Control Sample	Total/NA	Solid	5035	

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

GC VOA (Continued)

Prep Batch: 11258 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-11258/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-1499-A-10-D MS	Matrix Spike	Total/NA	Solid	5035	
890-1499-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 11259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	8021B	11258
880-7702-1	AH1-1'	Total/NA	Solid	8021B	11258
880-7702-2	AH1-3'	Total/NA	Solid	8021B	11258
880-7702-2 - DL5	AH1-3'	Total/NA	Solid	8021B	11258
880-7702-3	AH2-2'	Total/NA	Solid	8021B	11258
880-7702-3	AH2-2'	Total/NA	Solid	8021B	11258
880-7702-4	AH2-4'	Total/NA	Solid	8021B	11258
880-7702-4	AH2-4'	Total/NA	Solid	8021B	11258
MB 880-11111/5-A	Method Blank	Total/NA	Solid	8021B	11111
MB 880-11258/5-A	Method Blank	Total/NA	Solid	8021B	11258
LCS 880-11111/1-A	Lab Control Sample	Total/NA	Solid	8021B	11111
LCS 880-11258/1-A	Lab Control Sample	Total/NA	Solid	8021B	11258
LCSD 880-11111/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11111
LCSD 880-11258/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11258
890-1499-A-10-D MS	Matrix Spike	Total/NA	Solid	8021B	11258
890-1499-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11258
890-1502-A-41-A MS	Matrix Spike	Total/NA	Solid	8021B	11111
890-1502-A-41-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	11111

GC Semi VOA

Analysis Batch: 11030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	8015B NM	11155
880-7702-2	AH1-3'	Total/NA	Solid	8015B NM	11155
880-7702-3	AH2-2'	Total/NA	Solid	8015B NM	11155
880-7702-4	AH2-4'	Total/NA	Solid	8015B NM	11155
MB 880-11155/1-A	Method Blank	Total/NA	Solid	8015B NM	11155
LCS 880-11155/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11155
LCSD 880-11155/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11155
880-7562-A-17-I MS	Matrix Spike	Total/NA	Solid	8015B NM	11155
880-7562-A-17-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	11155

Prep Batch: 11155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	8015NM Prep	
880-7702-2	AH1-3'	Total/NA	Solid	8015NM Prep	
880-7702-3	AH2-2'	Total/NA	Solid	8015NM Prep	
880-7702-4	AH2-4'	Total/NA	Solid	8015NM Prep	
MB 880-11155/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11155/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11155/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-7562-A-17-I MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-7562-A-17-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

GC Semi VOA

Analysis Batch: 11344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Total/NA	Solid	8015 NM	
880-7702-2	AH1-3'	Total/NA	Solid	8015 NM	
880-7702-3	AH2-2'	Total/NA	Solid	8015 NM	
880-7702-4	AH2-4'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 10936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Soluble	Solid	DI Leach	
880-7702-2	AH1-3'	Soluble	Solid	DI Leach	
880-7702-3	AH2-2'	Soluble	Solid	DI Leach	
880-7702-4	AH2-4'	Soluble	Solid	DI Leach	
MB 880-10936/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-10936/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-10936/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7699-A-2-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-7699-A-2-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 11209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7702-1	AH1-1'	Soluble	Solid	300.0	10936
880-7702-2	AH1-3'	Soluble	Solid	300.0	10936
880-7702-3	AH2-2'	Soluble	Solid	300.0	10936
880-7702-4	AH2-4'	Soluble	Solid	300.0	10936
MB 880-10936/1-A	Method Blank	Soluble	Solid	300.0	10936
LCS 880-10936/2-A	Lab Control Sample	Soluble	Solid	300.0	10936
LCSD 880-10936/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	10936
880-7699-A-2-E MS	Matrix Spike	Soluble	Solid	300.0	10936
880-7699-A-2-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	10936

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Client Sample ID: AH1-1'

Lab Sample ID: 880-7702-1

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	11123	11/01/21 12:47	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	11027	11/02/21 13:54	MR	XEN MID
Total/NA	Prep	5035			5.03 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	11259	11/03/21 20:52	MR	XEN MID
Total/NA	Prep	5035			5.03 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		5000	5 mL	5 mL	11259	11/04/21 10:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11149	11/01/21 14:19	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11344	11/03/21 08:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11030	11/02/21 05:10	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	10936	10/29/21 13:14	SC	XEN MID
Soluble	Analysis	300.0		1			11209	11/03/21 17:33	CH	XEN MID

Client Sample ID: AH1-3'

Lab Sample ID: 880-7702-2

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	11123	11/01/21 12:47	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	11027	11/02/21 14:20	MR	XEN MID
Total/NA	Prep	5035			4.98 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	11259	11/03/21 21:20	MR	XEN MID
Total/NA	Prep	5035	DL5		4.98 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B	DL5	5000	5 mL	5 mL	11259	11/04/21 11:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11149	11/01/21 14:19	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11344	11/03/21 08:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11030	11/02/21 05:38	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	10936	10/29/21 13:14	SC	XEN MID
Soluble	Analysis	300.0		1			11209	11/03/21 17:40	CH	XEN MID

Client Sample ID: AH2-2'

Lab Sample ID: 880-7702-3

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	11123	11/01/21 12:47	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	11027	11/02/21 14:47	MR	XEN MID
Total/NA	Prep	5035			4.99 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	11259	11/03/21 21:48	MR	XEN MID
Total/NA	Prep	5035			4.99 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		5000	5 mL	5 mL	11259	11/04/21 11:39	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11149	11/01/21 14:19	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11344	11/03/21 08:46	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Client Sample ID: AH2-2'

Lab Sample ID: 880-7702-3

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11030	11/02/21 06:05	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	10936	10/29/21 13:14	SC	XEN MID
Soluble	Analysis	300.0		1			11209	11/03/21 17:47	CH	XEN MID

Client Sample ID: AH2-4'

Lab Sample ID: 880-7702-4

Date Collected: 10/26/21 00:00

Matrix: Solid

Date Received: 10/28/21 11:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	11123	11/01/21 12:47	KL	XEN MID
Total/NA	Analysis	8021B		100	5 mL	5 mL	11027	11/02/21 15:13	MR	XEN MID
Total/NA	Prep	5035			5.01 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	11259	11/03/21 22:15	MR	XEN MID
Total/NA	Prep	5035			5.01 g	5 g	11258	11/02/21 15:13	MR	XEN MID
Total/NA	Analysis	8021B		5000	5 mL	5 mL	11259	11/04/21 12:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11149	11/01/21 14:19	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11344	11/03/21 08:46	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11155	11/01/21 14:28	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11030	11/02/21 06:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	10936	10/29/21 13:14	SC	XEN MID
Soluble	Analysis	300.0		1			11209	11/03/21 17:54	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Laboratory: Eurofins Xenco, Midland

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

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

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

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

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

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7702-1
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-7702-1	AH1-1'	Solid	10/26/21 00:00	10/28/21 11:50
880-7702-2	AH1-3'	Solid	10/26/21 00:00	10/28/21 11:50
880-7702-3	AH2-2'	Solid	10/26/21 00:00	10/28/21 11:50
880-7702-4	AH2-4'	Solid	10/26/21 00:00	10/28/21 11:50

1

2

3

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9

10

11

12

13

14

Xenoco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765Phone: 432-563-1800
Fax: 432-563-1713

Project Manager

Becky Haskell

Project Name: Endurance 6

Company Name

GHD "Direct Bill to Plains"

Project #: SRS# 2021-089

Company Address

2135 S. Loop 250 W

Project Loc. Eddy County, NM

City/State/Zip

Midland, TX, 79703

PO #: N/A

Telephone No

(432) 686-0086

Fax No

Report Format:

☒ Standard☐ TRRP☐ NPDES

Sampler Signature

e-mail

Becky.Haskell@GHD.com
ALGroves@PALP.COM

(lab use)

ORDF



880-7702 Chain of Custody

FIELD CODE

AH1-1'

AH1-3'

AH2-2'

AH2-4'

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total # of Containers

Ice

HNO₃

HCl

H₂SO₄

NaOH

Na₂S₂O₃

None

Other (Specify)

DW=Drinking Water SL=Sludge

GW = Groundwater S=Sol/Solid

NP=Non-Potable Specify Other

TPH 418 1 8015M 8015B

TPH TX 1005 TX 1006

Cations (Ca Mg Na K)

Anions (Cl SO₄ Alkalinity)

SAR / ESP / CEC

Metals As Ag Ba Cd Cr Pb Hg Se

Volatiles

Semivolatiles

BTEX 8021B/5030 or BTEX 8260

RCI

NORM

X X X X Chloride 300

RUSH TAT (Pre-Schedule) 24 48 72 hrs

Standard TAT

Special Instructions.

Relinquished by

Relinquished by

Relinquished by

Relinquished by

Relinquished by

Date

Date

Date

Date

Date

Time

Time

Time

Time

Time

Received by

Received by

Received by

Received by

Received by

Date

Date

Date

Date

Date

Time

Time

Time

Time

Time

Laboratory Comments

Sample Containers Intact?

VOCs Free of Headspace?

Labels on container(s)?

Custody seals on container(s)?

Sample Hand Delivered by Sampler/Client Rep?

by Courier?

Temperature Upon Receipt

DHL As Read

FedEx Lone Star

Y

Y

Y

Y

Y

Y

Y

Y

Y

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-7702-1

SDG Number: Eddy County NM

Login Number: 7702

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Xenco, Midland

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

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-7918-1

SDG Number: Eddy Co, NM

Login Number: 7918**List Number: 1****Creator: Teel, Brianna****List Source: Eurofins Xenco, Midland**

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

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-7918-1

SDG Number: Eddy Co, NM

Login Number: 7918**List Number: 2****Creator: Palmar, Pedro****List Source: Eurofins Xenco, Stafford****List Creation: 11/04/21 12:36 PM**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-7919-1

Laboratory Sample Delivery Group: Eddy County, NM
Client Project/Site: Endurance 6"

For:

GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

A handwritten signature in black ink, appearing to read "Debbie Simmons".

Authorized for release by:
11/11/2021 3:43:37 PM

Debbie Simmons, Project Manager
(832)986-6768
debbie.simmons@eurofinset.com

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results through
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www.eurofinsus.com/Env

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-7919-1
SDG: Eddy County,NM

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
b	The compound was found in the blank and sample
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.
X	Surrogate recovery exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
U	Analyte was not detected at or above the SDL.
X	Surrogate recovery exceeds control limits

HPLC/IC

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

Glossary

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

Eurofins Xenco, Midland

Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Job ID: 880-7919-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-7919-1

Receipt

The samples were received on 11/3/2021 11:19 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: TP1-28' (880-7919-2), TP1-31' (880-7919-3), (MB 880-11533/5-A) and (MB 880-11534/5-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-11589 and analytical batch 880-11624 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28)

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

HPLC/IC

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Client Sample ID: TP1-22'

Lab Sample ID: 880-7919-1

Date Collected: 11/02/21 13:30

Matrix: Solid

Date Received: 11/03/21 11:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	163		1.00	0.193	mg/Kg		11/05/21 11:31	11/06/21 13:37	500
Toluene	1930	b	10.1	2.30	mg/Kg		11/09/21 08:29	11/09/21 14:44	5000
Ethylbenzene	85.4		1.00	0.283	mg/Kg		11/05/21 11:31	11/06/21 13:37	500
m-Xylene & p-Xylene	318		2.00	0.506	mg/Kg		11/05/21 11:31	11/06/21 13:37	500
o-Xylene	1.39		1.00	0.172	mg/Kg		11/05/21 11:31	11/06/21 13:37	500
Xylenes, Total	319		2.00	0.506	mg/Kg		11/05/21 11:31	11/06/21 13:37	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	11/05/21 11:31	11/06/21 13:37	500
1,4-Difluorobenzene (Surr)	115		70 - 130	11/05/21 11:31	11/06/21 13:37	500

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	2500		2.00	0.506	mg/Kg			11/10/21 11:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	32100		250	74.9	mg/Kg			11/09/21 16:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16100		250	74.9	mg/Kg		11/05/21 13:34	11/07/21 05:20	5
Diesel Range Organics (Over C10-C28)	14800	*	250	74.9	mg/Kg		11/05/21 13:34	11/07/21 05:20	5
Oil Range Organics (Over C28-C36)	1150		250	74.9	mg/Kg		11/05/21 13:34	11/07/21 05:20	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	167	X	70 - 130	11/05/21 13:34	11/07/21 05:20	5
o-Terphenyl	129		70 - 130	11/05/21 13:34	11/07/21 05:20	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	63.3		4.99	0.857	mg/Kg			11/10/21 20:16	1

Client Sample ID: TP1-28'

Lab Sample ID: 880-7919-2

Date Collected: 11/02/21 13:40

Matrix: Solid

Date Received: 11/03/21 11:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	115		1.01	0.194	mg/Kg		11/05/21 11:31	11/06/21 14:04	500
Ethylbenzene	72.0		1.01	0.284	mg/Kg		11/05/21 11:31	11/06/21 14:04	500
m-Xylene & p-Xylene	272		2.01	0.508	mg/Kg		11/05/21 11:31	11/06/21 14:04	500
o-Xylene	3.86		1.01	0.173	mg/Kg		11/05/21 11:31	11/06/21 14:04	500
Xylenes, Total	276		2.01	0.508	mg/Kg		11/05/21 11:31	11/06/21 14:04	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	158	X	70 - 130	11/05/21 11:31	11/06/21 14:04	500
1,4-Difluorobenzene (Surr)	115		70 - 130	11/05/21 11:31	11/06/21 14:04	500

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County, NM

Client Sample ID: TP1-28'

Lab Sample ID: 880-7919-2

Date Collected: 11/02/21 13:40

Matrix: Solid

Date Received: 11/03/21 11:19

Method: 8021B - Volatile Organic Compounds (GC) - DL6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	1910	b	9.96	2.27	mg/Kg	-	11/09/21 08:29	11/09/21 15:04	5000

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	2370		2.01	0.508	mg/Kg	-		11/10/21 11:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	35000		250	74.9	mg/Kg	-		11/09/21 16:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	16900		250	74.9	mg/Kg	-	11/05/21 13:34	11/07/21 05:40	5
Diesel Range Organics (Over C10-C28)	16600	*	250	74.9	mg/Kg	-	11/05/21 13:34	11/07/21 05:40	5
Oil Range Organics (Over C28-C36)	1470		250	74.9	mg/Kg	-	11/05/21 13:34	11/07/21 05:40	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	174	X	70 - 130			-	11/05/21 13:34	11/07/21 05:40	5
o-Terphenyl	128		70 - 130			-	11/05/21 13:34	11/07/21 05:40	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	57.1		4.99	0.857	mg/Kg	-		11/10/21 20:38	1

Client Sample ID: TP1-31'

Lab Sample ID: 880-7919-3

Date Collected: 11/02/21 13:50

Matrix: Solid

Date Received: 11/03/21 11:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	160		0.996	0.192	mg/Kg	-	11/05/21 11:31	11/06/21 15:52	500
Toluene	1300		10.0	2.28	mg/Kg	-	11/08/21 09:53	11/08/21 16:43	5000
Ethylbenzene	82.0		0.996	0.281	mg/Kg	-	11/05/21 11:31	11/06/21 15:52	500
m-Xylene & p-Xylene	310		1.99	0.503	mg/Kg	-	11/05/21 11:31	11/06/21 15:52	500
o-Xylene	3.51		0.996	0.171	mg/Kg	-	11/05/21 11:31	11/06/21 15:52	500
Xylenes, Total	314		1.99	0.503	mg/Kg	-	11/05/21 11:31	11/06/21 15:52	500

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	168	X	70 - 130			-	11/05/21 11:31	11/06/21 15:52	500
1,4-Difluorobenzene (Surr)	105		70 - 130			-	11/05/21 11:31	11/06/21 15:52	500

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	1860		1.99	0.503	mg/Kg	-		11/10/21 11:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	41100		250	74.9	mg/Kg	-		11/09/21 16:19	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Client Sample ID: TP1-31'

Lab Sample ID: 880-7919-3

Date Collected: 11/02/21 13:50

Matrix: Solid

Date Received: 11/03/21 11:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	20800		250	74.9	mg/Kg		11/05/21 13:34	11/07/21 06:00	5
Diesel Range Organics (Over C10-C28)	18700	*	250	74.9	mg/Kg		11/05/21 13:34	11/07/21 06:00	5
Oil Range Organics (Over C28-C36)	1640		250	74.9	mg/Kg		11/05/21 13:34	11/07/21 06:00	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	177	X	70 - 130				11/05/21 13:34	11/07/21 06:00	5
o-Terphenyl	124		70 - 130				11/05/21 13:34	11/07/21 06:00	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	104		5.01	0.860	mg/Kg			11/10/21 20:45	1

Eurofins Xenco, Midland

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-7919-1	TP1-22'	127	115
880-7919-2	TP1-28'	158 X	115
880-7919-3	TP1-31'	168 X	105
LCS 880-11534/1-A	Lab Control Sample	92	117
LCS 880-11663/1-A	Lab Control Sample	101	97
LCS 880-11794/1-A	Lab Control Sample	113	102
LCSD 880-11534/2-A	Lab Control Sample Dup	98	121
LCSD 880-11663/2-A	Lab Control Sample Dup	99	95
LCSD 880-11794/2-A	Lab Control Sample Dup	116	101
MB 880-11533/5-A	Method Blank	58 X	102
MB 880-11534/5-A	Method Blank	57 X	107
MB 880-11663/5-A	Method Blank	128	113
MB 880-11794/5-A	Method Blank	119	106
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-7919-1	TP1-22'	167 X	129
880-7919-2	TP1-28'	174 X	128
880-7919-3	TP1-31'	177 X	124
LCS 880-11589/2-A	Lab Control Sample	80	83
LCSD 880-11589/3-A	Lab Control Sample Dup	74	76
MB 880-11589/1-A	Method Blank	108	130
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-11533/5-A

Matrix: Solid

Analysis Batch: 11613

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11533

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/05/21 11:26	11/05/21 19:58	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/05/21 11:26	11/05/21 19:58	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/05/21 11:26	11/05/21 19:58	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/05/21 11:26	11/05/21 19:58	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/05/21 11:26	11/05/21 19:58	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/05/21 11:26	11/05/21 19:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	58	X	70 - 130	11/05/21 11:26	11/05/21 19:58	1
1,4-Difluorobenzene (Surr)	102		70 - 130	11/05/21 11:26	11/05/21 19:58	1

Lab Sample ID: MB 880-11534/5-A

Matrix: Solid

Analysis Batch: 11613

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11534

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/05/21 11:31	11/06/21 09:35	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/05/21 11:31	11/06/21 09:35	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/05/21 11:31	11/06/21 09:35	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/05/21 11:31	11/06/21 09:35	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/05/21 11:31	11/06/21 09:35	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/05/21 11:31	11/06/21 09:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	57	X	70 - 130	11/05/21 11:31	11/06/21 09:35	1
1,4-Difluorobenzene (Surr)	107		70 - 130	11/05/21 11:31	11/06/21 09:35	1

Lab Sample ID: LCS 880-11534/1-A

Matrix: Solid

Analysis Batch: 11613

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09594		mg/Kg		96	70 - 130
Toluene	0.100	0.08642		mg/Kg		86	70 - 130
Ethylbenzene	0.100	0.08851		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	0.200	0.1977		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09913		mg/Kg		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	117		70 - 130

Lab Sample ID: LCSD 880-11534/2-A

Matrix: Solid

Analysis Batch: 11613

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11534

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.1026		mg/Kg		103	70 - 130	7	35

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

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

Lab Sample ID: LCSD 880-11534/2-A

Matrix: Solid

Analysis Batch: 11613

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11534

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.09304		mg/Kg		93	70 - 130	7	35
Ethylbenzene	0.100	0.09624		mg/Kg		96	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.2084		mg/Kg		104	70 - 130	5	35
o-Xylene	0.100	0.1062		mg/Kg		106	70 - 130	7	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	121		70 - 130

Lab Sample ID: MB 880-11663/5-A

Matrix: Solid

Analysis Batch: 11665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11663

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/08/21 09:53	11/08/21 13:18	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/08/21 09:53	11/08/21 13:18	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/08/21 09:53	11/08/21 13:18	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/08/21 09:53	11/08/21 13:18	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/08/21 09:53	11/08/21 13:18	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/08/21 09:53	11/08/21 13:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	11/08/21 09:53	11/08/21 13:18	1
1,4-Difluorobenzene (Surr)	113		70 - 130	11/08/21 09:53	11/08/21 13:18	1

Lab Sample ID: LCS 880-11663/1-A

Matrix: Solid

Analysis Batch: 11665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11663

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.07648		mg/Kg		76	70 - 130
Toluene	0.100	0.07987		mg/Kg		80	70 - 130
Ethylbenzene	0.100	0.07710		mg/Kg		77	70 - 130
m-Xylene & p-Xylene	0.200	0.1603		mg/Kg		80	70 - 130
o-Xylene	0.100	0.08099		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-11663/2-A

Matrix: Solid

Analysis Batch: 11665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11663

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.07362		mg/Kg		74	70 - 130	4	35
Toluene	0.100	0.07560		mg/Kg		76	70 - 130	5	35
Ethylbenzene	0.100	0.07388		mg/Kg		74	70 - 130	4	35

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County, NM

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

Lab Sample ID: LCSD 880-11663/2-A

Matrix: Solid

Analysis Batch: 11665

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11663

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
m-Xylene & p-Xylene	0.200	0.1566		mg/Kg		78	70 - 130	2	35
o-Xylene	0.100	0.07733		mg/Kg		77	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: MB 880-11794/5-A

Matrix: Solid

Analysis Batch: 11793

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11794

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/09/21 08:29	11/09/21 11:26	1
Toluene	0.0007483	J	0.00200	0.000456	mg/Kg		11/09/21 08:29	11/09/21 11:26	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/09/21 08:29	11/09/21 11:26	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/09/21 08:29	11/09/21 11:26	1
o-Xylene	0.0005228	J	0.00200	0.000344	mg/Kg		11/09/21 08:29	11/09/21 11:26	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/09/21 08:29	11/09/21 11:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	11/09/21 08:29	11/09/21 11:26	1
1,4-Difluorobenzene (Surr)	106		70 - 130	11/09/21 08:29	11/09/21 11:26	1

Lab Sample ID: LCS 880-11794/1-A

Matrix: Solid

Analysis Batch: 11793

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11794

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09176		mg/Kg		92	70 - 130
Toluene	0.100	0.09873		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09888		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.2005		mg/Kg		100	70 - 130
o-Xylene	0.100	0.09827		mg/Kg		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: LCSD 880-11794/2-A

Matrix: Solid

Analysis Batch: 11793

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11794

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09636		mg/Kg		96	70 - 130	5	35
Toluene	0.100	0.1045		mg/Kg		104	70 - 130	6	35
Ethylbenzene	0.100	0.1099		mg/Kg		110	70 - 130	11	35
m-Xylene & p-Xylene	0.200	0.2151		mg/Kg		108	70 - 130	7	35
o-Xylene	0.100	0.1103		mg/Kg		110	70 - 130	11	35

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

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

Lab Sample ID: MB 880-11589/1-A

Matrix: Solid

Analysis Batch: 11624

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 11589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/05/21 13:34	11/06/21 21:43	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		11/05/21 13:34	11/06/21 21:43	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/05/21 13:34	11/06/21 21:43	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	108		70 - 130				11/05/21 13:34	11/06/21 21:43	1
o-Terphenyl	130		70 - 130				11/05/21 13:34	11/06/21 21:43	1

Lab Sample ID: LCS 880-11589/2-A

Matrix: Solid

Analysis Batch: 11624

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 11589

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	933.7		mg/Kg		93	70 - 130
Diesel Range Organics (Over C10-C28)	1000	889.8		mg/Kg		89	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	80		70 - 130				
o-Terphenyl	83		70 - 130				

Lab Sample ID: LCSD 880-11589/3-A

Matrix: Solid

Analysis Batch: 11624

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 11589

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	877.0		mg/Kg		88	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	709.3	*	mg/Kg		71	70 - 130	23	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	74		70 - 130						
o-Terphenyl	76		70 - 130						

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-11468/1-A

Matrix: Solid

Analysis Batch: 11846

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			11/10/21 18:10	1

Lab Sample ID: LCS 880-11468/2-A

Matrix: Solid

Analysis Batch: 11846

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	264.7		mg/Kg		106	90 - 110

Lab Sample ID: LCSD 880-11468/3-A

Matrix: Solid

Analysis Batch: 11846

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	263.3		mg/Kg		105	90 - 110	1	20

Lab Sample ID: 880-7919-1 MS

Matrix: Solid

Analysis Batch: 11846

Client Sample ID: TP1-22'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	63.3		250	307.6		mg/Kg		98	90 - 110

Lab Sample ID: 880-7919-1 MSD

Matrix: Solid

Analysis Batch: 11846

Client Sample ID: TP1-22'

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	63.3		250	305.1		mg/Kg		97	90 - 110	1	20

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

GC VOA

Prep Batch: 11533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-11533/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 11534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	5035	
880-7919-2	TP1-28'	Total/NA	Solid	5035	
880-7919-3	TP1-31'	Total/NA	Solid	5035	
MB 880-11534/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11534/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11534/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 11613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	8021B	11534
880-7919-2	TP1-28'	Total/NA	Solid	8021B	11534
880-7919-3	TP1-31'	Total/NA	Solid	8021B	11534
MB 880-11533/5-A	Method Blank	Total/NA	Solid	8021B	11533
MB 880-11534/5-A	Method Blank	Total/NA	Solid	8021B	11534
LCS 880-11534/1-A	Lab Control Sample	Total/NA	Solid	8021B	11534
LCSD 880-11534/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11534

Prep Batch: 11663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-3	TP1-31'	Total/NA	Solid	5035	
MB 880-11663/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11663/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11663/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 11665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-3	TP1-31'	Total/NA	Solid	8021B	11663
MB 880-11663/5-A	Method Blank	Total/NA	Solid	8021B	11663
LCS 880-11663/1-A	Lab Control Sample	Total/NA	Solid	8021B	11663
LCSD 880-11663/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11663

Analysis Batch: 11793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	8021B	11794
880-7919-2 - DL6	TP1-28'	Total/NA	Solid	8021B	11794
MB 880-11794/5-A	Method Blank	Total/NA	Solid	8021B	11794
LCS 880-11794/1-A	Lab Control Sample	Total/NA	Solid	8021B	11794
LCSD 880-11794/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	11794

Prep Batch: 11794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	5035	
880-7919-2 - DL6	TP1-28'	Total/NA	Solid	5035	
MB 880-11794/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-11794/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-11794/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

GC VOA

Analysis Batch: 11890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	Total BTEX	
880-7919-2	TP1-28'	Total/NA	Solid	Total BTEX	
880-7919-3	TP1-31'	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 11589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	8015NM Prep	
880-7919-2	TP1-28'	Total/NA	Solid	8015NM Prep	
880-7919-3	TP1-31'	Total/NA	Solid	8015NM Prep	
MB 880-11589/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-11589/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-11589/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 11624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	8015B NM	11589
880-7919-2	TP1-28'	Total/NA	Solid	8015B NM	11589
880-7919-3	TP1-31'	Total/NA	Solid	8015B NM	11589
MB 880-11589/1-A	Method Blank	Total/NA	Solid	8015B NM	11589
LCS 880-11589/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	11589
LCSD 880-11589/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	11589

Analysis Batch: 11856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Total/NA	Solid	8015 NM	
880-7919-2	TP1-28'	Total/NA	Solid	8015 NM	
880-7919-3	TP1-31'	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 11468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Soluble	Solid	DI Leach	
880-7919-2	TP1-28'	Soluble	Solid	DI Leach	
880-7919-3	TP1-31'	Soluble	Solid	DI Leach	
MB 880-11468/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-11468/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-11468/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-7919-1 MS	TP1-22'	Soluble	Solid	DI Leach	
880-7919-1 MSD	TP1-22'	Soluble	Solid	DI Leach	

Analysis Batch: 11846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1	TP1-22'	Soluble	Solid	300.0	11468
880-7919-2	TP1-28'	Soluble	Solid	300.0	11468
880-7919-3	TP1-31'	Soluble	Solid	300.0	11468
MB 880-11468/1-A	Method Blank	Soluble	Solid	300.0	11468
LCS 880-11468/2-A	Lab Control Sample	Soluble	Solid	300.0	11468
LCSD 880-11468/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	11468
880-7919-1 MS	TP1-22'	Soluble	Solid	300.0	11468

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

HPLC/IC (Continued)

Analysis Batch: 11846 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-7919-1 MSD	TP1-22'	Soluble	Solid	300.0	11468

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

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Client Sample ID: TP1-22'

Lab Sample ID: 880-7919-1

Date Collected: 11/02/21 13:30

Matrix: Solid

Date Received: 11/03/21 11:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	11794	11/09/21 08:29	MR	XEN MID
Total/NA	Analysis	8021B		5000	5 mL	5 mL	11793	11/09/21 14:44	MR	XEN MID
Total/NA	Prep	5035			4.99 g	5 mL	11534	11/05/21 11:31	MR	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	11613	11/06/21 13:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11890	11/10/21 11:00	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11624	11/07/21 05:20	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	11468	11/04/21 13:25	SC	XEN MID
Soluble	Analysis	300.0		1			11846	11/10/21 20:16	CH	XEN MID

Client Sample ID: TP1-28'

Lab Sample ID: 880-7919-2

Date Collected: 11/02/21 13:40

Matrix: Solid

Date Received: 11/03/21 11:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL6		5.02 g	5 mL	11794	11/09/21 08:29	MR	XEN MID
Total/NA	Analysis	8021B	DL6	5000	5 mL	5 mL	11793	11/09/21 15:04	MR	XEN MID
Total/NA	Prep	5035			4.97 g	5 mL	11534	11/05/21 11:31	MR	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	11613	11/06/21 14:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11890	11/10/21 11:00	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11624	11/07/21 05:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	11468	11/04/21 13:25	SC	XEN MID
Soluble	Analysis	300.0		1			11846	11/10/21 20:38	CH	XEN MID

Client Sample ID: TP1-31'

Lab Sample ID: 880-7919-3

Date Collected: 11/02/21 13:50

Matrix: Solid

Date Received: 11/03/21 11:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	11663	11/08/21 09:53	KL	XEN MID
Total/NA	Analysis	8021B		5000	5 mL	5 mL	11665	11/08/21 16:43	KL	XEN MID
Total/NA	Prep	5035			5.02 g	5 mL	11534	11/05/21 11:31	MR	XEN MID
Total/NA	Analysis	8021B		500	5 mL	5 mL	11613	11/06/21 15:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			11890	11/10/21 11:00	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			11856	11/09/21 16:19	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	11589	11/05/21 13:34	DM	XEN MID
Total/NA	Analysis	8015B NM		5			11624	11/07/21 06:00	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	11468	11/04/21 13:25	SC	XEN MID
Soluble	Analysis	300.0		1			11846	11/10/21 20:45	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-7919-1
SDG: Eddy County,NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-7919-1	TP1-22'	Solid	11/02/21 13:30	11/03/21 11:19
880-7919-2	TP1-28'	Solid	11/02/21 13:40	11/03/21 11:19
880-7919-3	TP1-31'	Solid	11/02/21 13:50	11/03/21 11:19

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Xenco Laboratories

The Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765Phone: 432-563-1800
Fax: 432-563-1713

Project Manager

Becky. HaskellProject Name: Endurance 6

Company Name

GHD "Bill Direct to Plains"Project # 12566934

Company Address

2135 S. Loop 250 W.Project Loc. Eddy County, NM

City/State/Zip

Midland, TX 79703

PO #:

Telephone No

(432) 686-0086

Report Format:

☒ Standard☐ TRRP☐ NPDES

Sampler Signature

[Signature]

e-mail

Becky.Haskell@GHD.com
Alsnovs@PALR.com

(lab use r

OKD R



880-7919 Chain of Custody

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total # of Containers

Ice

HNO₃

HCl

H₂SO₄

NaOH

Na₂S₂O₃

None

Other (Specify)

DW=Drinking Water SL=Sludge

GW=Groundwater S=Soil/Solid

NR=Non-Potable Specify Other

TPH 418 1

TPH TX 1005

Cations (Ca Mg Na K)

Anions (Cl SO₄ Alkalinity)

SAR / ESP / CEC

Metals: As Ag Ba Cd Cr Pb Hg Se

Volatiles

Semivolatiles

BTEX 8021B/5030 or BTEX 8260

RCI

NORM

Chloride 300

RUSH TAT (Pre-Schedule) 24, 48, ~2 hrs

Standard TAT

Special Instructions.

Requisitioned by

Date

Time

Received by

Date

Time

Laboratory Comments

Sample Containers Intact?

VOCs Free of Headspace?

Labels on container(s) Custody seals on container(s)

Sample Hand Delivered by Sampler/Client Rep ?

Temperature Upon Receipt

by Courier? UPS

DHL FedEx Lone Star

As Read Corrected

Requisitioned by

Date

Time

Received by

Date

Time

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-7919-1
SDG Number: Eddy County,NM

Login Number: 7919

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-8351-1
Laboratory Sample Delivery Group: 12566934
Client Project/Site: Endurance 6"

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

A handwritten signature in dark ink that reads "Chad A. Bechtold".

Authorized for release by:
11/17/2021 5:30:43 PM
Chad Bechtold, Project Manager
(813)690-3563
chad.bechtold@eurofinset.com

Designee for
Debbie Simmons, Project Manager
(832)986-6768
debbie.simmons@eurofinset.com

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-8351-1
SDG: 12566934

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Qualifiers

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

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Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Job ID: 880-8351-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-8351-1

Receipt

The samples were received on 11/16/2021 12:28 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-12411 and analytical batch 880-12396 was outside acceptance criteria for Diesel Range Organics (Over C10-C28). Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The non-client batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

HPLC/IC

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Client Sample ID: SW-1

Lab Sample ID: 880-8351-1

Date Collected: 11/15/21 13:00

Matrix: Solid

Date Received: 11/16/21 12:28

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000463	J	0.00199	0.000383	mg/Kg		11/16/21 15:46	11/17/21 12:48	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		11/16/21 15:46	11/17/21 12:48	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		11/16/21 15:46	11/17/21 12:48	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		11/16/21 15:46	11/17/21 12:48	1
o-Xylene	0.000787	J	0.00199	0.000342	mg/Kg		11/16/21 15:46	11/17/21 12:48	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		11/16/21 15:46	11/17/21 12:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		70 - 130	11/16/21 15:46	11/17/21 12:48	1
1,4-Difluorobenzene (Surr)	95		70 - 130	11/16/21 15:46	11/17/21 12:48	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00125	J	0.00398	0.00100	mg/Kg			11/17/21 16:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	18.2	J	50.0	15.0	mg/Kg			11/17/21 13:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/16/21 13:30	11/17/21 01:29	1
Diesel Range Organics (Over C10-C28)	18.2	J *	50.0	15.0	mg/Kg		11/16/21 13:30	11/17/21 01:29	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/16/21 13:30	11/17/21 01:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	99		70 - 130	11/16/21 13:30	11/17/21 01:29	1
o-Terphenyl	106		70 - 130	11/16/21 13:30	11/17/21 01:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.2		4.95	0.850	mg/Kg			11/16/21 19:09	1

Client Sample ID: SW-2

Lab Sample ID: 880-8351-2

Date Collected: 11/15/21 13:10

Matrix: Solid

Date Received: 11/16/21 12:28

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		11/16/21 15:46	11/17/21 13:09	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		11/16/21 15:46	11/17/21 13:09	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		11/16/21 15:46	11/17/21 13:09	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		11/16/21 15:46	11/17/21 13:09	1
o-Xylene	0.000354	J	0.00200	0.000345	mg/Kg		11/16/21 15:46	11/17/21 13:09	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		11/16/21 15:46	11/17/21 13:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	11/16/21 15:46	11/17/21 13:09	1
1,4-Difluorobenzene (Surr)	86		70 - 130	11/16/21 15:46	11/17/21 13:09	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Client Sample ID: SW-2

Lab Sample ID: 880-8351-2

Date Collected: 11/15/21 13:10

Matrix: Solid

Date Received: 11/16/21 12:28

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			11/17/21 16:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.9	J	49.9	15.0	mg/Kg			11/17/21 13:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/16/21 13:30	11/17/21 01:50	1
Diesel Range Organics (Over C10-C28)	17.9	J *	49.9	15.0	mg/Kg		11/16/21 13:30	11/17/21 01:50	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/16/21 13:30	11/17/21 01:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				11/16/21 13:30	11/17/21 01:50	1
o-Terphenyl	90		70 - 130				11/16/21 13:30	11/17/21 01:50	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27.7		5.01	0.860	mg/Kg			11/16/21 19:16	1

Client Sample ID: SW-3

Lab Sample ID: 880-8351-3

Date Collected: 11/15/21 13:20

Matrix: Solid

Date Received: 11/16/21 12:28

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		11/16/21 15:46	11/17/21 13:29	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		11/16/21 15:46	11/17/21 13:29	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		11/16/21 15:46	11/17/21 13:29	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		11/16/21 15:46	11/17/21 13:29	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		11/16/21 15:46	11/17/21 13:29	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		11/16/21 15:46	11/17/21 13:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130				11/16/21 15:46	11/17/21 13:29	1
1,4-Difluorobenzene (Surr)	100		70 - 130				11/16/21 15:46	11/17/21 13:29	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			11/17/21 16:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	16.3	J	50.0	15.0	mg/Kg			11/17/21 13:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/16/21 13:30	11/17/21 02:31	1
Diesel Range Organics (Over C10-C28)	16.3	J *	50.0	15.0	mg/Kg		11/16/21 13:30	11/17/21 02:31	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Client Sample ID: SW-3

Lab Sample ID: 880-8351-3

Date Collected: 11/15/21 13:20

Matrix: Solid

Date Received: 11/16/21 12:28

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/16/21 13:30	11/17/21 02:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				11/16/21 13:30	11/17/21 02:31	1
o-Terphenyl	96		70 - 130				11/16/21 13:30	11/17/21 02:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.5		5.01	0.860	mg/Kg			11/16/21 19:24	1

Client Sample ID: SW-4

Lab Sample ID: 880-8351-4

Date Collected: 11/15/21 13:30

Matrix: Solid

Date Received: 11/16/21 12:28

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		11/16/21 15:46	11/17/21 13:49	1
Toluene	0.00197	J	0.00202	0.000460	mg/Kg		11/16/21 15:46	11/17/21 13:49	1
Ethylbenzene	0.000624	J	0.00202	0.000570	mg/Kg		11/16/21 15:46	11/17/21 13:49	1
m-Xylene & p-Xylene	0.00419		0.00403	0.00102	mg/Kg		11/16/21 15:46	11/17/21 13:49	1
o-Xylene	0.00215		0.00202	0.000347	mg/Kg		11/16/21 15:46	11/17/21 13:49	1
Xylenes, Total	0.00634		0.00403	0.00102	mg/Kg		11/16/21 15:46	11/17/21 13:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	144	S1+	70 - 130				11/16/21 15:46	11/17/21 13:49	1
1,4-Difluorobenzene (Surr)	107		70 - 130				11/16/21 15:46	11/17/21 13:49	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00893		0.00403	0.00102	mg/Kg			11/17/21 16:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	18.3	J	49.9	15.0	mg/Kg			11/17/21 13:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/16/21 13:30	11/17/21 02:52	1
Diesel Range Organics (Over C10-C28)	18.3	J *	49.9	15.0	mg/Kg		11/16/21 13:30	11/17/21 02:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/16/21 13:30	11/17/21 02:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	106		70 - 130				11/16/21 13:30	11/17/21 02:52	1
o-Terphenyl	110		70 - 130				11/16/21 13:30	11/17/21 02:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.5		5.01	0.860	mg/Kg			11/16/21 19:31	1

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-8351-1	SW-1	128	95
880-8351-1 MS	SW-1	123	105
880-8351-1 MSD	SW-1	116	97
880-8351-2	SW-2	129	86
880-8351-3	SW-3	122	100
880-8351-4	SW-4	144 S1+	107
LCS 880-12348/1-A	Lab Control Sample	114	107
LCSD 880-12348/2-A	Lab Control Sample Dup	113	109
MB 880-12348/5-A	Method Blank	129	109
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8307-A-1-C MS	Matrix Spike	97	93
880-8307-A-1-D MSD	Matrix Spike Duplicate	98	93
880-8351-1	SW-1	99	106
880-8351-2	SW-2	87	90
880-8351-3	SW-3	93	96
880-8351-4	SW-4	106	110
LCS 880-12411/2-A	Lab Control Sample	91	90
LCSD 880-12411/3-A	Lab Control Sample Dup	81	84
MB 880-12411/1-A	Method Blank	95	105
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12348/5-A

Matrix: Solid

Analysis Batch: 12497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 12348

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/16/21 15:46	11/17/21 12:27	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/16/21 15:46	11/17/21 12:27	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/16/21 15:46	11/17/21 12:27	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/16/21 15:46	11/17/21 12:27	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/16/21 15:46	11/17/21 12:27	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/16/21 15:46	11/17/21 12:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130	11/16/21 15:46	11/17/21 12:27	1
1,4-Difluorobenzene (Surr)	109		70 - 130	11/16/21 15:46	11/17/21 12:27	1

Lab Sample ID: LCS 880-12348/1-A

Matrix: Solid

Analysis Batch: 12497

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 12348

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08655		mg/Kg		87	70 - 130
Toluene	0.100	0.08181		mg/Kg		82	70 - 130
Ethylbenzene	0.100	0.08728		mg/Kg		87	70 - 130
m-Xylene & p-Xylene	0.200	0.1853		mg/Kg		93	70 - 130
o-Xylene	0.100	0.09289		mg/Kg		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	107		70 - 130

Lab Sample ID: LCSD 880-12348/2-A

Matrix: Solid

Analysis Batch: 12497

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 12348

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.08834		mg/Kg		88	70 - 130	2	35
Toluene	0.100	0.08343		mg/Kg		83	70 - 130	2	35
Ethylbenzene	0.100	0.09147		mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1909		mg/Kg		95	70 - 130	3	35
o-Xylene	0.100	0.09414		mg/Kg		94	70 - 130	1	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-8351-1 MS

Matrix: Solid

Analysis Batch: 12497

Client Sample ID: SW-1

Prep Type: Total/NA

Prep Batch: 12348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.000463	J	0.101	0.08389		mg/Kg		83	70 - 130
Toluene	<0.000453	U	0.101	0.08273		mg/Kg		82	70 - 130

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

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

Lab Sample ID: 880-8351-1 MS

Matrix: Solid

Analysis Batch: 12497

Client Sample ID: SW-1

Prep Type: Total/NA

Prep Batch: 12348

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.000562	U	0.101	0.08920		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00100	U	0.201	0.1883		mg/Kg		94	70 - 130
o-Xylene	0.000787	J	0.101	0.09603		mg/Kg		95	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	123		70 - 130
1,4-Difluorobenzene (Surr)	105		70 - 130

Lab Sample ID: 880-8351-1 MSD

Matrix: Solid

Analysis Batch: 12497

Client Sample ID: SW-1

Prep Type: Total/NA

Prep Batch: 12348

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.000463	J	0.100	0.07203		mg/Kg		72	70 - 130	15	35
Toluene	<0.000453	U	0.100	0.07147		mg/Kg		71	70 - 130	15	35
Ethylbenzene	<0.000562	U	0.100	0.07551		mg/Kg		76	70 - 130	17	35
m-Xylene & p-Xylene	<0.00100	U	0.200	0.1623		mg/Kg		81	70 - 130	15	35
o-Xylene	0.000787	J	0.100	0.08291		mg/Kg		82	70 - 130	15	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	116		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

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

Lab Sample ID: MB 880-12411/1-A

Matrix: Solid

Analysis Batch: 12396

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 12411

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/16/21 08:31	11/16/21 21:00	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		11/16/21 08:31	11/16/21 21:00	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/16/21 08:31	11/16/21 21:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	11/16/21 08:31	11/16/21 21:00	1
o-Terphenyl	105		70 - 130	11/16/21 08:31	11/16/21 21:00	1

Lab Sample ID: LCS 880-12411/2-A

Matrix: Solid

Analysis Batch: 12396

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 12411

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	856.8		mg/Kg		86	70 - 130
Diesel Range Organics (Over C10-C28)	1000	689.5	*	mg/Kg		69	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

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

Lab Sample ID: LCS 880-12411/2-A

Matrix: Solid

Analysis Batch: 12396

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 12411

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: LCSD 880-12411/3-A

Matrix: Solid

Analysis Batch: 12396

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 12411

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	949.7		mg/Kg		95	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	1000	748.4		mg/Kg		75	70 - 130	8	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	84		70 - 130

Lab Sample ID: 880-8307-A-1-C MS

Matrix: Solid

Analysis Batch: 12396

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 12411

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	997	1176		mg/Kg		118	70 - 130		
Diesel Range Organics (Over C10-C28)	<15.0	U *	997	849.9		mg/Kg		85	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	97		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 880-8307-A-1-D MSD

Matrix: Solid

Analysis Batch: 12396

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 12411

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	998	1186		mg/Kg		119	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<15.0	U *	998	858.4		mg/Kg		86	70 - 130	1	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	93		70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-12431/1-A

Matrix: Solid

Analysis Batch: 12477

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			11/16/21 15:08	1

Lab Sample ID: LCS 880-12431/2-A

Matrix: Solid

Analysis Batch: 12477

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	262.2		mg/Kg		105	90 - 110

Lab Sample ID: LCSD 880-12431/3-A

Matrix: Solid

Analysis Batch: 12477

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	262.8		mg/Kg		105	90 - 110	0	20

Lab Sample ID: 890-1551-A-3-D MS

Matrix: Solid

Analysis Batch: 12477

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	36.3		250	303.9		mg/Kg		107	90 - 110

Lab Sample ID: 890-1551-A-3-E MSD

Matrix: Solid

Analysis Batch: 12477

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	36.3		250	300.1		mg/Kg		106	90 - 110	1	20

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

GC VOA

Prep Batch: 12348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Total/NA	Solid	5035	
880-8351-2	SW-2	Total/NA	Solid	5035	
880-8351-3	SW-3	Total/NA	Solid	5035	
880-8351-4	SW-4	Total/NA	Solid	5035	
MB 880-12348/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-12348/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-12348/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-8351-1 MS	SW-1	Total/NA	Solid	5035	
880-8351-1 MSD	SW-1	Total/NA	Solid	5035	

Analysis Batch: 12497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Total/NA	Solid	8021B	12348
880-8351-2	SW-2	Total/NA	Solid	8021B	12348
880-8351-3	SW-3	Total/NA	Solid	8021B	12348
880-8351-4	SW-4	Total/NA	Solid	8021B	12348
MB 880-12348/5-A	Method Blank	Total/NA	Solid	8021B	12348
LCS 880-12348/1-A	Lab Control Sample	Total/NA	Solid	8021B	12348
LCSD 880-12348/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	12348
880-8351-1 MS	SW-1	Total/NA	Solid	8021B	12348
880-8351-1 MSD	SW-1	Total/NA	Solid	8021B	12348

Analysis Batch: 12592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Total/NA	Solid	Total BTEX	
880-8351-2	SW-2	Total/NA	Solid	Total BTEX	
880-8351-3	SW-3	Total/NA	Solid	Total BTEX	
880-8351-4	SW-4	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 12396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Total/NA	Solid	8015B NM	12411
880-8351-2	SW-2	Total/NA	Solid	8015B NM	12411
880-8351-3	SW-3	Total/NA	Solid	8015B NM	12411
880-8351-4	SW-4	Total/NA	Solid	8015B NM	12411
MB 880-12411/1-A	Method Blank	Total/NA	Solid	8015B NM	12411
LCS 880-12411/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	12411
LCSD 880-12411/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	12411
880-8307-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	12411
880-8307-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	12411

Prep Batch: 12411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Total/NA	Solid	8015NM Prep	
880-8351-2	SW-2	Total/NA	Solid	8015NM Prep	
880-8351-3	SW-3	Total/NA	Solid	8015NM Prep	
880-8351-4	SW-4	Total/NA	Solid	8015NM Prep	
MB 880-12411/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-12411/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

GC Semi VOA (Continued)

Prep Batch: 12411 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-12411/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8307-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-8307-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 12574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Total/NA	Solid	8015 NM	
880-8351-2	SW-2	Total/NA	Solid	8015 NM	
880-8351-3	SW-3	Total/NA	Solid	8015 NM	
880-8351-4	SW-4	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 12431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Soluble	Solid	DI Leach	
880-8351-2	SW-2	Soluble	Solid	DI Leach	
880-8351-3	SW-3	Soluble	Solid	DI Leach	
880-8351-4	SW-4	Soluble	Solid	DI Leach	
MB 880-12431/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-12431/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-12431/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-1551-A-3-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-1551-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 12477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8351-1	SW-1	Soluble	Solid	300.0	12431
880-8351-2	SW-2	Soluble	Solid	300.0	12431
880-8351-3	SW-3	Soluble	Solid	300.0	12431
880-8351-4	SW-4	Soluble	Solid	300.0	12431
MB 880-12431/1-A	Method Blank	Soluble	Solid	300.0	12431
LCS 880-12431/2-A	Lab Control Sample	Soluble	Solid	300.0	12431
LCSD 880-12431/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	12431
890-1551-A-3-D MS	Matrix Spike	Soluble	Solid	300.0	12431
890-1551-A-3-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	12431

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Client Sample ID: SW-1

Lab Sample ID: 880-8351-1

Date Collected: 11/15/21 13:00

Matrix: Solid

Date Received: 11/16/21 12:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	12348	11/16/21 15:46	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	12497	11/17/21 12:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12592	11/17/21 16:21	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12574	11/17/21 13:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	12411	11/16/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			12396	11/17/21 01:29	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	12431	11/16/21 15:00	CH	XEN MID
Soluble	Analysis	300.0		1			12477	11/16/21 19:09	CH	XEN MID

Client Sample ID: SW-2

Lab Sample ID: 880-8351-2

Date Collected: 11/15/21 13:10

Matrix: Solid

Date Received: 11/16/21 12:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	12348	11/16/21 15:46	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	12497	11/17/21 13:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12592	11/17/21 16:21	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12574	11/17/21 13:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	12411	11/16/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			12396	11/17/21 01:50	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	12431	11/16/21 15:00	CH	XEN MID
Soluble	Analysis	300.0		1			12477	11/16/21 19:16	CH	XEN MID

Client Sample ID: SW-3

Lab Sample ID: 880-8351-3

Date Collected: 11/15/21 13:20

Matrix: Solid

Date Received: 11/16/21 12:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	12348	11/16/21 15:46	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	12497	11/17/21 13:29	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12592	11/17/21 16:21	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12574	11/17/21 13:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	12411	11/16/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			12396	11/17/21 02:31	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	12431	11/16/21 15:00	CH	XEN MID
Soluble	Analysis	300.0		1			12477	11/16/21 19:24	CH	XEN MID

Client Sample ID: SW-4

Lab Sample ID: 880-8351-4

Date Collected: 11/15/21 13:30

Matrix: Solid

Date Received: 11/16/21 12:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	12348	11/16/21 15:46	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	12497	11/17/21 13:49	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12592	11/17/21 16:21	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Client Sample ID: SW-4

Lab Sample ID: 880-8351-4

Date Collected: 11/15/21 13:30

Matrix: Solid

Date Received: 11/16/21 12:28

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			12574	11/17/21 13:26	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	12411	11/16/21 13:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			12396	11/17/21 02:52	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	12431	11/16/21 15:00	CH	XEN MID
Soluble	Analysis	300.0		1			12477	11/16/21 19:31	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8351-1
SDG: 12566934

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-8351-1	SW-1	Solid	11/15/21 13:00	11/16/21 12:28
880-8351-2	SW-2	Solid	11/15/21 13:10	11/16/21 12:28
880-8351-3	SW-3	Solid	11/15/21 13:20	11/16/21 12:28
880-8351-4	SW-4	Solid	11/15/21 13:30	11/16/21 12:28

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



Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440 San Antonio TX (210) 509-3334
El Paso TX (915) 585-3443 Lubbock TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

A



880-8351 Chain of Custody

www.xenco.com Page 11

Project Manager	Becky. Hasckewell@GHD.com	Bill to: (if different)	Plains Pipeline
Company Name	GHD	Company Name	
Address.	2135 S. Loop 250 W	Address	
City, State ZIP	Midland, TX 79703	City, State ZIP	
Phone	(432) 686-0086	Email	"Becky", AL.Groves@PALLP.com

Work Order Comments									
Program: UST/PST ☐ PRF ☐ Brownfields ☐ RRD ☐ Superfund ☐ State of Project: Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐ Deliverables EDD ☐ ADAPT ☐ Other ☐									

[illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA TCLP / SPLP 6010	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenofo. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenofo will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenofo. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenofo, but not analyzed. These terms will be enforced unless previously negotiated with Eurofins Xenofo. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenofo, but not analyzed. These terms will be enforced unless previously negotiated with Eurofins Xenofo.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 ES	Epa Canillo	11/15/21/2020	2 Epa Canillo	JSR	11/16/20
3			4		
5			6		12/22

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-8351-1

SDG Number: 12566934

Login Number: 8351**List Number: 1****Creator: Teel, Brianna****List Source: Eurofins Xenco, Midland**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-8632-1
Laboratory Sample Delivery Group: 12566934
Client Project/Site: Endurance 6"

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

A handwritten signature in dark ink, reading "Chad A. Bechtold".

Authorized for release by:
11/24/2021 4:24:47 PM
Chad Bechtold, Project Manager
(813)690-3563
chad.bechtold@eurofinset.com

Designee for
Debbie Simmons, Project Manager
(832)986-6768
debbie.simmons@eurofinset.com

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-8632-1
SDG: 12566934

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

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Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Job ID: 880-8632-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-8632-1

Receipt

The samples were received on 11/23/2021 1:19 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-13057 and analytical batch 880-13000 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-5 (880-8632-1), SW-6 (880-8632-2), SW-7 (880-8632-3), SW-8 (880-8632-4), SW-9 (880-8632-5), SW-10 (880-8632-6), SW-11 (880-8632-7) and (MB 880-13088/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The method blank for preparation batch 880-13089 and analytical batch 880-13046 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-13089/2-A), (LCSD 880-13089/3-A) and (880-8634-A-1-E). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-12 (880-8632-8) and SW-13 (880-8632-9). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-5

Lab Sample ID: 880-8632-1

Date Collected: 11/18/21 11:05

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U F1	0.00202	0.000388	mg/Kg	-	11/23/21 16:47	11/23/21 23:37	1
Toluene	<0.000460	U F1	0.00202	0.000460	mg/Kg	-	11/23/21 16:47	11/23/21 23:37	1
Ethylbenzene	<0.000570	U F1	0.00202	0.000570	mg/Kg	-	11/23/21 16:47	11/23/21 23:37	1
m-Xylene & p-Xylene	<0.00102	U F1	0.00403	0.00102	mg/Kg	-	11/23/21 16:47	11/23/21 23:37	1
o-Xylene	<0.000347	U F1	0.00202	0.000347	mg/Kg	-	11/23/21 16:47	11/23/21 23:37	1
Xylenes, Total	<0.00102	U F1	0.00403	0.00102	mg/Kg	-	11/23/21 16:47	11/23/21 23:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	11/23/21 16:47	11/23/21 23:37	1
1,4-Difluorobenzene (Surr)	105		70 - 130	11/23/21 16:47	11/23/21 23:37	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg	-		11/24/21 10:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	31.2	J	49.9	15.0	mg/Kg	-		11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg	-	11/23/21 14:30	11/23/21 22:32	1
Diesel Range Organics (Over C10-C28)	31.2	J	49.9	15.0	mg/Kg	-	11/23/21 14:30	11/23/21 22:32	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg	-	11/23/21 14:30	11/23/21 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	166	S1+	70 - 130	11/23/21 14:30	11/23/21 22:32	1
o-Terphenyl	181	S1+	70 - 130	11/23/21 14:30	11/23/21 22:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	341		4.98	0.855	mg/Kg	-		11/23/21 20:17	1

Client Sample ID: SW-6

Lab Sample ID: 880-8632-2

Date Collected: 11/18/21 11:15

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00107	J	0.00198	0.000382	mg/Kg	-	11/23/21 16:47	11/24/21 04:30	1
Toluene	0.000580	J	0.00198	0.000452	mg/Kg	-	11/23/21 16:47	11/24/21 04:30	1
Ethylbenzene	<0.000561	U	0.00198	0.000561	mg/Kg	-	11/23/21 16:47	11/24/21 04:30	1
m-Xylene & p-Xylene	0.00149	J	0.00397	0.00100	mg/Kg	-	11/23/21 16:47	11/24/21 04:30	1
o-Xylene	0.000359	J	0.00198	0.000341	mg/Kg	-	11/23/21 16:47	11/24/21 04:30	1
Xylenes, Total	0.00185	J	0.00397	0.00100	mg/Kg	-	11/23/21 16:47	11/24/21 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	11/23/21 16:47	11/24/21 04:30	1
1,4-Difluorobenzene (Surr)	106		70 - 130	11/23/21 16:47	11/24/21 04:30	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-6

Lab Sample ID: 880-8632-2

Date Collected: 11/18/21 11:15

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00350	J	0.00397	0.00100	mg/Kg			11/24/21 10:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	50.0	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:30	11/23/21 23:37	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:30	11/23/21 23:37	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:30	11/23/21 23:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	132	S1+	70 - 130				11/23/21 14:30	11/23/21 23:37	1
o-Terphenyl	142	S1+	70 - 130				11/23/21 14:30	11/23/21 23:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	86.0		5.04	0.865	mg/Kg			11/23/21 20:39	1

Client Sample ID: SW-7

Lab Sample ID: 880-8632-3

Date Collected: 11/18/21 11:25

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 16:47	11/24/21 04:51	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		11/23/21 16:47	11/24/21 04:51	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		11/23/21 16:47	11/24/21 04:51	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 16:47	11/24/21 04:51	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		11/23/21 16:47	11/24/21 04:51	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 16:47	11/24/21 04:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130				11/23/21 16:47	11/24/21 04:51	1
1,4-Difluorobenzene (Surr)	106		70 - 130				11/23/21 16:47	11/24/21 04:51	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/23/21 23:59	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/23/21 23:59	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-7

Lab Sample ID: 880-8632-3

Date Collected: 11/18/21 11:25

Matrix: Solid

Date Received: 11/23/21 13:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/23/21 23:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130				11/23/21 14:30	11/23/21 23:59	1
o-Terphenyl	135	S1+	70 - 130				11/23/21 14:30	11/23/21 23:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	49.3		4.99	0.857	mg/Kg			11/23/21 20:47	1

Client Sample ID: SW-8

Lab Sample ID: 880-8632-4

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		11/23/21 16:47	11/24/21 05:11	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		11/23/21 16:47	11/24/21 05:11	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		11/23/21 16:47	11/24/21 05:11	1
m-Xylene & p-Xylene	0.00147	J	0.00399	0.00101	mg/Kg		11/23/21 16:47	11/24/21 05:11	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		11/23/21 16:47	11/24/21 05:11	1
Xylenes, Total	0.00147	J	0.00399	0.00101	mg/Kg		11/23/21 16:47	11/24/21 05:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130				11/23/21 16:47	11/24/21 05:11	1
1,4-Difluorobenzene (Surr)	106		70 - 130				11/23/21 16:47	11/24/21 05:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00147	J	0.00399	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	288		49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	288		49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 00:20	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 00:20	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 00:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				11/23/21 14:30	11/24/21 00:20	1
o-Terphenyl	140	S1+	70 - 130				11/23/21 14:30	11/24/21 00:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23.0		5.00	0.858	mg/Kg			11/23/21 20:54	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-9

Lab Sample ID: 880-8632-5

Date Collected: 11/18/21 11:45

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		11/23/21 16:47	11/24/21 05:32	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		11/23/21 16:47	11/24/21 05:32	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		11/23/21 16:47	11/24/21 05:32	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		11/23/21 16:47	11/24/21 05:32	1
o-Xylene	0.00128	J	0.00200	0.000345	mg/Kg		11/23/21 16:47	11/24/21 05:32	1
Xylenes, Total	0.00128	J	0.00401	0.00101	mg/Kg		11/23/21 16:47	11/24/21 05:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	11/23/21 16:47	11/24/21 05:32	1
1,4-Difluorobenzene (Surr)	100		70 - 130	11/23/21 16:47	11/24/21 05:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00128	J	0.00401	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	38.1	J	49.8	14.9	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:30	11/24/21 00:43	1
Diesel Range Organics (Over C10-C28)	38.1	J	49.8	14.9	mg/Kg		11/23/21 14:30	11/24/21 00:43	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:30	11/24/21 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130	11/23/21 14:30	11/24/21 00:43	1
o-Terphenyl	132	S1+	70 - 130	11/23/21 14:30	11/24/21 00:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		4.95	0.850	mg/Kg			11/23/21 21:01	1

Client Sample ID: SW-10

Lab Sample ID: 880-8632-6

Date Collected: 11/18/21 12:05

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00114	J	0.00201	0.000387	mg/Kg		11/23/21 16:47	11/24/21 05:52	1
Toluene	0.00147	J	0.00201	0.000458	mg/Kg		11/23/21 16:47	11/24/21 05:52	1
Ethylbenzene	0.000787	J	0.00201	0.000567	mg/Kg		11/23/21 16:47	11/24/21 05:52	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		11/23/21 16:47	11/24/21 05:52	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		11/23/21 16:47	11/24/21 05:52	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		11/23/21 16:47	11/24/21 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	11/23/21 16:47	11/24/21 05:52	1
1,4-Difluorobenzene (Surr)	101		70 - 130	11/23/21 16:47	11/24/21 05:52	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-10

Lab Sample ID: 880-8632-6

Date Collected: 11/18/21 12:05

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00340	J	0.00402	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	82.9		49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 01:06	1
Diesel Range Organics (Over C10-C28)	82.9		49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 01:06	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 01:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130				11/23/21 14:30	11/24/21 01:06	1
o-Terphenyl	156	S1+	70 - 130				11/23/21 14:30	11/24/21 01:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96.2		5.02	0.862	mg/Kg			11/23/21 21:24	1

Client Sample ID: SW-11

Lab Sample ID: 880-8632-7

Date Collected: 11/18/21 12:15

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000391	J	0.00199	0.000383	mg/Kg		11/23/21 16:47	11/24/21 06:12	1
Toluene	0.000471	J	0.00199	0.000453	mg/Kg		11/23/21 16:47	11/24/21 06:12	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		11/23/21 16:47	11/24/21 06:12	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		11/23/21 16:47	11/24/21 06:12	1
o-Xylene	0.00126	J	0.00199	0.000342	mg/Kg		11/23/21 16:47	11/24/21 06:12	1
Xylenes, Total	0.00126	J	0.00398	0.00100	mg/Kg		11/23/21 16:47	11/24/21 06:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130				11/23/21 16:47	11/24/21 06:12	1
1,4-Difluorobenzene (Surr)	99		70 - 130				11/23/21 16:47	11/24/21 06:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00212	J	0.00398	0.00100	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	45.2	J	49.8	14.9	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:30	11/24/21 01:29	1
Diesel Range Organics (Over C10-C28)	45.2	J	49.8	14.9	mg/Kg		11/23/21 14:30	11/24/21 01:29	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-11

Lab Sample ID: 880-8632-7

Date Collected: 11/18/21 12:15

Matrix: Solid

Date Received: 11/23/21 13:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg	-	11/23/21 14:30	11/24/21 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130				11/23/21 14:30	11/24/21 01:29	1
o-Terphenyl	141	S1+	70 - 130				11/23/21 14:30	11/24/21 01:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	109		4.97	0.853	mg/Kg	-		11/23/21 21:31	1

Client Sample ID: SW-12

Lab Sample ID: 880-8632-8

Date Collected: 11/18/21 12:25

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg	-	11/23/21 16:47	11/24/21 06:33	1
Toluene	0.000987	J	0.00200	0.000455	mg/Kg	-	11/23/21 16:47	11/24/21 06:33	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg	-	11/23/21 16:47	11/24/21 06:33	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg	-	11/23/21 16:47	11/24/21 06:33	1
o-Xylene	0.00167	J	0.00200	0.000343	mg/Kg	-	11/23/21 16:47	11/24/21 06:33	1
Xylenes, Total	0.00167	J	0.00399	0.00101	mg/Kg	-	11/23/21 16:47	11/24/21 06:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		70 - 130				11/23/21 16:47	11/24/21 06:33	1
1,4-Difluorobenzene (Surr)	103		70 - 130				11/23/21 16:47	11/24/21 06:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00266	J	0.00399	0.00101	mg/Kg	-		11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.3		50.0	15.0	mg/Kg	-		11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg	-	11/23/21 14:30	11/24/21 01:52	1
Diesel Range Organics (Over C10-C28)	72.3		50.0	15.0	mg/Kg	-	11/23/21 14:30	11/24/21 01:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg	-	11/23/21 14:30	11/24/21 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	133	S1+	70 - 130				11/23/21 14:30	11/24/21 01:52	1
o-Terphenyl	156	S1+	70 - 130				11/23/21 14:30	11/24/21 01:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	50.4		4.95	0.850	mg/Kg	-		11/23/21 21:38	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-13

Lab Sample ID: 880-8632-9

Date Collected: 11/18/21 12:35

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 16:47	11/24/21 06:53	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		11/23/21 16:47	11/24/21 06:53	1
Ethylbenzene	0.00113	J	0.00199	0.000563	mg/Kg		11/23/21 16:47	11/24/21 06:53	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 16:47	11/24/21 06:53	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		11/23/21 16:47	11/24/21 06:53	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 16:47	11/24/21 06:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	119		70 - 130	11/23/21 16:47	11/24/21 06:53	1
1,4-Difluorobenzene (Surr)	95		70 - 130	11/23/21 16:47	11/24/21 06:53	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00113	J	0.00398	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	318		49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 02:14	1
Diesel Range Organics (Over C10-C28)	318		49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 02:14	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:30	11/24/21 02:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130	11/23/21 14:30	11/24/21 02:14	1
o-Terphenyl	134	S1+	70 - 130	11/23/21 14:30	11/24/21 02:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	77.6		4.99	0.857	mg/Kg			11/23/21 21:46	1

Client Sample ID: SW-14

Lab Sample ID: 880-8632-10

Date Collected: 11/18/21 12:45

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.000450	J	0.00200	0.000384	mg/Kg		11/23/21 16:47	11/24/21 07:14	1
Toluene	0.000688	J	0.00200	0.000455	mg/Kg		11/23/21 16:47	11/24/21 07:14	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		11/23/21 16:47	11/24/21 07:14	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 16:47	11/24/21 07:14	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		11/23/21 16:47	11/24/21 07:14	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 16:47	11/24/21 07:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	11/23/21 16:47	11/24/21 07:14	1
1,4-Difluorobenzene (Surr)	105		70 - 130	11/23/21 16:47	11/24/21 07:14	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-14

Lab Sample ID: 880-8632-10

Date Collected: 11/18/21 12:45

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00114	J	0.00399	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.4	J	50.0	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 06:21	1
Diesel Range Organics (Over C10-C28)	17.4	J B	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 06:21	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 06:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				11/23/21 14:43	11/24/21 06:21	1
o-Terphenyl	119		70 - 130				11/23/21 14:43	11/24/21 06:21	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.3		5.00	0.858	mg/Kg			11/23/21 21:53	1

Client Sample ID: SW-15

Lab Sample ID: 880-8632-11

Date Collected: 11/18/21 12:55

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 16:47	11/24/21 07:34	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		11/23/21 16:47	11/24/21 07:34	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		11/23/21 16:47	11/24/21 07:34	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		11/23/21 16:47	11/24/21 07:34	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		11/23/21 16:47	11/24/21 07:34	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		11/23/21 16:47	11/24/21 07:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130				11/23/21 16:47	11/24/21 07:34	1
1,4-Difluorobenzene (Surr)	91		70 - 130				11/23/21 16:47	11/24/21 07:34	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	26.0	J	49.8	14.9	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 06:43	1
Diesel Range Organics (Over C10-C28)	26.0	J B	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 06:43	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-15

Lab Sample ID: 880-8632-11

Date Collected: 11/18/21 12:55

Matrix: Solid

Date Received: 11/23/21 13:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg	-	11/23/21 14:43	11/24/21 06:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	129		70 - 130	11/23/21 14:43	11/24/21 06:43	1
o-Terphenyl	124		70 - 130	11/23/21 14:43	11/24/21 06:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	84.3		4.96	0.851	mg/Kg	-		11/23/21 22:01	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-8632-1	SW-5	121	105
880-8632-1 MS	SW-5	110	83
880-8632-1 MSD	SW-5	135 S1+	100
880-8632-2	SW-6	121	106
880-8632-3	SW-7	139 S1+	106
880-8632-4	SW-8	125	106
880-8632-5	SW-9	119	100
880-8632-6	SW-10	122	101
880-8632-7	SW-11	125	99
880-8632-8	SW-12	123	103
880-8632-9	SW-13	119	95
880-8632-10	SW-14	124	105
880-8632-11	SW-15	129	91
LCS 880-13057/1-A	Lab Control Sample	113	40 S1-
LCSD 880-13057/2-A	Lab Control Sample Dup	55 S1-	101
MB 880-12919/5-A	Method Blank	121	95
MB 880-13057/5-A	Method Blank	124	99
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8632-1	SW-5	166 S1+	181 S1+
880-8632-1 MS	SW-5	121	116
880-8632-1 MSD	SW-5	123	119
880-8632-2	SW-6	132 S1+	142 S1+
880-8632-3	SW-7	124	135 S1+
880-8632-4	SW-8	126	140 S1+
880-8632-5	SW-9	122	132 S1+
880-8632-6	SW-10	136 S1+	156 S1+
880-8632-7	SW-11	124	141 S1+
880-8632-8	SW-12	133 S1+	156 S1+
880-8632-9	SW-13	120	134 S1+
880-8632-10	SW-14	126	119
880-8632-11	SW-15	129	124
LCS 880-13088/2-A	Lab Control Sample	124	129
LCS 880-13089/2-A	Lab Control Sample	299 S1+	283 S1+
LCSD 880-13088/3-A	Lab Control Sample Dup	117	123
LCSD 880-13089/3-A	Lab Control Sample Dup	326 S1+	306 S1+
MB 880-13088/1-A	Method Blank	148 S1+	171 S1+
MB 880-13089/1-A	Method Blank	144 S1+	140 S1+
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-12919/5-A

Matrix: Solid

Analysis Batch: 13000

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 12919

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/23/21 08:30	11/23/21 11:33	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/23/21 08:30	11/23/21 11:33	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/23/21 08:30	11/23/21 11:33	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/21 08:30	11/23/21 11:33	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/23/21 08:30	11/23/21 11:33	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/21 08:30	11/23/21 11:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	11/23/21 08:30	11/23/21 11:33	1
1,4-Difluorobenzene (Surr)	95		70 - 130	11/23/21 08:30	11/23/21 11:33	1

Lab Sample ID: MB 880-13057/5-A

Matrix: Solid

Analysis Batch: 13000

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13057

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/23/21 16:47	11/23/21 23:08	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/23/21 16:47	11/23/21 23:08	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/23/21 16:47	11/23/21 23:08	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/21 16:47	11/23/21 23:08	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/23/21 16:47	11/23/21 23:08	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/21 16:47	11/23/21 23:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	11/23/21 16:47	11/23/21 23:08	1
1,4-Difluorobenzene (Surr)	99		70 - 130	11/23/21 16:47	11/23/21 23:08	1

Lab Sample ID: LCS 880-13057/1-A

Matrix: Solid

Analysis Batch: 13000

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13057

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08454		mg/Kg		85	70 - 130
Toluene	0.100	0.08857		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.08615		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	0.200	0.1705		mg/Kg		85	70 - 130
o-Xylene	0.100	0.08539		mg/Kg		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	40	S1-	70 - 130

Lab Sample ID: LCSD 880-13057/2-A

Matrix: Solid

Analysis Batch: 13000

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13057

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.08667		mg/Kg		87	70 - 130	2	35

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

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

Lab Sample ID: LCSD 880-13057/2-A

Matrix: Solid

Analysis Batch: 13000

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13057

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toluene	0.100	0.08568		mg/Kg		86	70 - 130	3	35
Ethylbenzene	0.100	0.09275		mg/Kg		93	70 - 130	7	35
m-Xylene & p-Xylene	0.200	0.1783		mg/Kg		89	70 - 130	4	35
o-Xylene	0.100	0.08755		mg/Kg		88	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	55	S1-	70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-8632-1 MS

Matrix: Solid

Analysis Batch: 13000

Client Sample ID: SW-5

Prep Type: Total/NA

Prep Batch: 13057

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.000388	U F1	0.0998	0.02931	F1	mg/Kg		29	70 - 130
Toluene	<0.000460	U F1	0.0998	0.03953	F1	mg/Kg		40	70 - 130
Ethylbenzene	<0.000570	U F1	0.0998	0.03363	F1	mg/Kg		34	70 - 130
m-Xylene & p-Xylene	<0.00102	U F1	0.200	0.07614	F1	mg/Kg		38	70 - 130
o-Xylene	<0.000347	U F1	0.0998	0.03378	F1	mg/Kg		34	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	83		70 - 130

Lab Sample ID: 880-8632-1 MSD

Matrix: Solid

Analysis Batch: 13000

Client Sample ID: SW-5

Prep Type: Total/NA

Prep Batch: 13057

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.000388	U F1	0.0994	0.03143	F1	mg/Kg		32	70 - 130	7	35
Toluene	<0.000460	U F1	0.0994	0.04000	F1	mg/Kg		40	70 - 130	1	35
Ethylbenzene	<0.000570	U F1	0.0994	0.03990	F1	mg/Kg		40	70 - 130	17	35
m-Xylene & p-Xylene	<0.00102	U F1	0.199	0.06305	F1	mg/Kg		32	70 - 130	19	35
o-Xylene	<0.000347	U F1	0.0994	0.03748	F1	mg/Kg		38	70 - 130	10	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

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

Lab Sample ID: MB 880-13088/1-A

Matrix: Solid

Analysis Batch: 13043

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13088

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:30	11/23/21 21:25	1

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

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

Lab Sample ID: MB 880-13088/1-A

Matrix: Solid

Analysis Batch: 13043

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13088

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:30	11/23/21 21:25	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:30	11/23/21 21:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	148	S1+	70 - 130				11/23/21 14:30	11/23/21 21:25	1
o-Terphenyl	171	S1+	70 - 130				11/23/21 14:30	11/23/21 21:25	1

Lab Sample ID: LCS 880-13088/2-A

Matrix: Solid

Analysis Batch: 13043

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13088

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	919.5		mg/Kg		92	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1277		mg/Kg		128	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	124		70 - 130				
o-Terphenyl	129		70 - 130				

Lab Sample ID: LCSD 880-13088/3-A

Matrix: Solid

Analysis Batch: 13043

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13088

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	927.0		mg/Kg		93	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	1254		mg/Kg		125	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	117		70 - 130						
o-Terphenyl	123		70 - 130						

Lab Sample ID: 880-8632-1 MS

Matrix: Solid

Analysis Batch: 13043

Client Sample ID: SW-5

Prep Type: Total/NA

Prep Batch: 13088

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	997	1175		mg/Kg		118	70 - 130
Diesel Range Organics (Over C10-C28)	31.2	J	997	1137		mg/Kg		111	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	121		70 - 130						
o-Terphenyl	116		70 - 130						

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

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

Lab Sample ID: 880-8632-1 MSD

Matrix: Solid

Analysis Batch: 13043

Client Sample ID: SW-5

Prep Type: Total/NA

Prep Batch: 13088

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	999	1191		mg/Kg		119	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	31.2	J	999	1181		mg/Kg		115	70 - 130	4	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	123		70 - 130								
o-Terphenyl	119		70 - 130								

Lab Sample ID: MB 880-13089/1-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 21:25	1
Diesel Range Organics (Over C10-C28)	15.45	J	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 21:25	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 21:25	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130				11/23/21 14:43	11/23/21 21:25	1
o-Terphenyl	140	S1+	70 - 130				11/23/21 14:43	11/23/21 21:25	1

Lab Sample ID: LCS 880-13089/2-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13089

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	772.9		mg/Kg		77	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	879.4		mg/Kg		88	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	299	S1+	70 - 130						
o-Terphenyl	283	S1+	70 - 130						

Lab Sample ID: LCSD 880-13089/3-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13089

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	804.3		mg/Kg		80	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	992.4		mg/Kg		99	70 - 130	12	20

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

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

Lab Sample ID: LCSD 880-13089/3-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13089

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	326	S1+	70 - 130
o-Terphenyl	306	S1+	70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-13082/1-A

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			11/23/21 19:55		1

Lab Sample ID: LCS 880-13082/2-A

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: Lab Control Sample

Prep Type: Soluble

			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride			250	259.4		mg/Kg		104	90 - 110	

Lab Sample ID: LCSD 880-13082/3-A

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	260.3		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-8632-1 MS

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: SW-5

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	341		249	572.0		mg/Kg		93	90 - 110	

Lab Sample ID: 880-8632-1 MSD

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: SW-5

Prep Type: Soluble

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	341		249	571.2		mg/Kg		93	90 - 110	0	20

Lab Sample ID: 880-8632-11 MS

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: SW-15

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	84.3		248	326.7		mg/Kg		98	90 - 110	

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QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 880-8632-11 MSD							Client Sample ID: SW-15					
Matrix: Solid							Prep Type: Soluble					
Analysis Batch: 13162												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit	
Chloride	84.3		248	327.3		mg/Kg		98	90 - 110	0	20	

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

GC VOA

Prep Batch: 12919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-12919/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 12945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Total/NA	Solid	Total BTEX	
880-8632-2	SW-6	Total/NA	Solid	Total BTEX	
880-8632-3	SW-7	Total/NA	Solid	Total BTEX	
880-8632-4	SW-8	Total/NA	Solid	Total BTEX	
880-8632-5	SW-9	Total/NA	Solid	Total BTEX	
880-8632-6	SW-10	Total/NA	Solid	Total BTEX	
880-8632-7	SW-11	Total/NA	Solid	Total BTEX	
880-8632-8	SW-12	Total/NA	Solid	Total BTEX	
880-8632-9	SW-13	Total/NA	Solid	Total BTEX	
880-8632-10	SW-14	Total/NA	Solid	Total BTEX	
880-8632-11	SW-15	Total/NA	Solid	Total BTEX	

Analysis Batch: 13000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Total/NA	Solid	8021B	13057
880-8632-2	SW-6	Total/NA	Solid	8021B	13057
880-8632-3	SW-7	Total/NA	Solid	8021B	13057
880-8632-4	SW-8	Total/NA	Solid	8021B	13057
880-8632-5	SW-9	Total/NA	Solid	8021B	13057
880-8632-6	SW-10	Total/NA	Solid	8021B	13057
880-8632-7	SW-11	Total/NA	Solid	8021B	13057
880-8632-8	SW-12	Total/NA	Solid	8021B	13057
880-8632-9	SW-13	Total/NA	Solid	8021B	13057
880-8632-10	SW-14	Total/NA	Solid	8021B	13057
880-8632-11	SW-15	Total/NA	Solid	8021B	13057
MB 880-12919/5-A	Method Blank	Total/NA	Solid	8021B	12919
MB 880-13057/5-A	Method Blank	Total/NA	Solid	8021B	13057
LCS 880-13057/1-A	Lab Control Sample	Total/NA	Solid	8021B	13057
LCSD 880-13057/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13057
880-8632-1 MS	SW-5	Total/NA	Solid	8021B	13057
880-8632-1 MSD	SW-5	Total/NA	Solid	8021B	13057

Prep Batch: 13057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Total/NA	Solid	5035	
880-8632-2	SW-6	Total/NA	Solid	5035	
880-8632-3	SW-7	Total/NA	Solid	5035	
880-8632-4	SW-8	Total/NA	Solid	5035	
880-8632-5	SW-9	Total/NA	Solid	5035	
880-8632-6	SW-10	Total/NA	Solid	5035	
880-8632-7	SW-11	Total/NA	Solid	5035	
880-8632-8	SW-12	Total/NA	Solid	5035	
880-8632-9	SW-13	Total/NA	Solid	5035	
880-8632-10	SW-14	Total/NA	Solid	5035	
880-8632-11	SW-15	Total/NA	Solid	5035	
MB 880-13057/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13057/1-A	Lab Control Sample	Total/NA	Solid	5035	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

GC VOA (Continued)

Prep Batch: 13057 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-13057/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-8632-1 MS	SW-5	Total/NA	Solid	5035	
880-8632-1 MSD	SW-5	Total/NA	Solid	5035	

GC Semi VOA

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Total/NA	Solid	8015 NM	
880-8632-2	SW-6	Total/NA	Solid	8015 NM	
880-8632-3	SW-7	Total/NA	Solid	8015 NM	
880-8632-4	SW-8	Total/NA	Solid	8015 NM	
880-8632-5	SW-9	Total/NA	Solid	8015 NM	
880-8632-6	SW-10	Total/NA	Solid	8015 NM	
880-8632-7	SW-11	Total/NA	Solid	8015 NM	
880-8632-8	SW-12	Total/NA	Solid	8015 NM	
880-8632-9	SW-13	Total/NA	Solid	8015 NM	
880-8632-10	SW-14	Total/NA	Solid	8015 NM	
880-8632-11	SW-15	Total/NA	Solid	8015 NM	

Analysis Batch: 13043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Total/NA	Solid	8015B NM	13088
880-8632-2	SW-6	Total/NA	Solid	8015B NM	13088
880-8632-3	SW-7	Total/NA	Solid	8015B NM	13088
880-8632-4	SW-8	Total/NA	Solid	8015B NM	13088
880-8632-5	SW-9	Total/NA	Solid	8015B NM	13088
880-8632-6	SW-10	Total/NA	Solid	8015B NM	13088
880-8632-7	SW-11	Total/NA	Solid	8015B NM	13088
880-8632-8	SW-12	Total/NA	Solid	8015B NM	13088
880-8632-9	SW-13	Total/NA	Solid	8015B NM	13088
MB 880-13088/1-A	Method Blank	Total/NA	Solid	8015B NM	13088
LCS 880-13088/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13088
LCSD 880-13088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13088
880-8632-1 MS	SW-5	Total/NA	Solid	8015B NM	13088
880-8632-1 MSD	SW-5	Total/NA	Solid	8015B NM	13088

Analysis Batch: 13046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-10	SW-14	Total/NA	Solid	8015B NM	13089
880-8632-11	SW-15	Total/NA	Solid	8015B NM	13089
MB 880-13089/1-A	Method Blank	Total/NA	Solid	8015B NM	13089
LCS 880-13089/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13089
LCSD 880-13089/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13089

Prep Batch: 13088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Total/NA	Solid	8015NM Prep	
880-8632-2	SW-6	Total/NA	Solid	8015NM Prep	
880-8632-3	SW-7	Total/NA	Solid	8015NM Prep	
880-8632-4	SW-8	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

GC Semi VOA (Continued)

Prep Batch: 13088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-5	SW-9	Total/NA	Solid	8015NM Prep	
880-8632-6	SW-10	Total/NA	Solid	8015NM Prep	
880-8632-7	SW-11	Total/NA	Solid	8015NM Prep	
880-8632-8	SW-12	Total/NA	Solid	8015NM Prep	
880-8632-9	SW-13	Total/NA	Solid	8015NM Prep	
MB 880-13088/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13088/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13088/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8632-1 MS	SW-5	Total/NA	Solid	8015NM Prep	
880-8632-1 MSD	SW-5	Total/NA	Solid	8015NM Prep	

Prep Batch: 13089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-10	SW-14	Total/NA	Solid	8015NM Prep	
880-8632-11	SW-15	Total/NA	Solid	8015NM Prep	
MB 880-13089/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13089/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13089/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 13082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Soluble	Solid	DI Leach	
880-8632-2	SW-6	Soluble	Solid	DI Leach	
880-8632-3	SW-7	Soluble	Solid	DI Leach	
880-8632-4	SW-8	Soluble	Solid	DI Leach	
880-8632-5	SW-9	Soluble	Solid	DI Leach	
880-8632-6	SW-10	Soluble	Solid	DI Leach	
880-8632-7	SW-11	Soluble	Solid	DI Leach	
880-8632-8	SW-12	Soluble	Solid	DI Leach	
880-8632-9	SW-13	Soluble	Solid	DI Leach	
880-8632-10	SW-14	Soluble	Solid	DI Leach	
880-8632-11	SW-15	Soluble	Solid	DI Leach	
MB 880-13082/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13082/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13082/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8632-1 MS	SW-5	Soluble	Solid	DI Leach	
880-8632-1 MSD	SW-5	Soluble	Solid	DI Leach	
880-8632-11 MS	SW-15	Soluble	Solid	DI Leach	
880-8632-11 MSD	SW-15	Soluble	Solid	DI Leach	

Analysis Batch: 13162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-1	SW-5	Soluble	Solid	300.0	13082
880-8632-2	SW-6	Soluble	Solid	300.0	13082
880-8632-3	SW-7	Soluble	Solid	300.0	13082
880-8632-4	SW-8	Soluble	Solid	300.0	13082
880-8632-5	SW-9	Soluble	Solid	300.0	13082
880-8632-6	SW-10	Soluble	Solid	300.0	13082
880-8632-7	SW-11	Soluble	Solid	300.0	13082

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

HPLC/IC (Continued)

Analysis Batch: 13162 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8632-8	SW-12	Soluble	Solid	300.0	13082
880-8632-9	SW-13	Soluble	Solid	300.0	13082
880-8632-10	SW-14	Soluble	Solid	300.0	13082
880-8632-11	SW-15	Soluble	Solid	300.0	13082
MB 880-13082/1-A	Method Blank	Soluble	Solid	300.0	13082
LCS 880-13082/2-A	Lab Control Sample	Soluble	Solid	300.0	13082
LCSD 880-13082/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13082
880-8632-1 MS	SW-5	Soluble	Solid	300.0	13082
880-8632-1 MSD	SW-5	Soluble	Solid	300.0	13082
880-8632-11 MS	SW-15	Soluble	Solid	300.0	13082
880-8632-11 MSD	SW-15	Soluble	Solid	300.0	13082

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-5

Lab Sample ID: 880-8632-1

Date Collected: 11/18/21 11:05

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/23/21 23:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 10:56	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/23/21 22:32	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 20:17	SC	XEN MID

Client Sample ID: SW-6

Lab Sample ID: 880-8632-2

Date Collected: 11/18/21 11:15

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 04:30	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 10:56	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/23/21 23:37	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 20:39	SC	XEN MID

Client Sample ID: SW-7

Lab Sample ID: 880-8632-3

Date Collected: 11/18/21 11:25

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 04:51	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/23/21 23:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 20:47	SC	XEN MID

Client Sample ID: SW-8

Lab Sample ID: 880-8632-4

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 05:11	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-8

Lab Sample ID: 880-8632-4

Date Collected: 11/18/21 11:35

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/24/21 00:20	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 20:54	SC	XEN MID

Client Sample ID: SW-9

Lab Sample ID: 880-8632-5

Date Collected: 11/18/21 11:45

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 05:32	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/24/21 00:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 21:01	SC	XEN MID

Client Sample ID: SW-10

Lab Sample ID: 880-8632-6

Date Collected: 11/18/21 12:05

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 05:52	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/24/21 01:06	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 21:24	SC	XEN MID

Client Sample ID: SW-11

Lab Sample ID: 880-8632-7

Date Collected: 11/18/21 12:15

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 06:12	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/24/21 01:29	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-11

Lab Sample ID: 880-8632-7

Date Collected: 11/18/21 12:15

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.03 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 21:31	SC	XEN MID

Client Sample ID: SW-12

Lab Sample ID: 880-8632-8

Date Collected: 11/18/21 12:25

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 06:33	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/24/21 01:52	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 21:38	SC	XEN MID

Client Sample ID: SW-13

Lab Sample ID: 880-8632-9

Date Collected: 11/18/21 12:35

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 06:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13088	11/23/21 14:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13043	11/24/21 02:14	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 21:46	SC	XEN MID

Client Sample ID: SW-14

Lab Sample ID: 880-8632-10

Date Collected: 11/18/21 12:45

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 07:14	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 06:21	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 21:53	SC	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Client Sample ID: SW-15

Lab Sample ID: 880-8632-11

Date Collected: 11/18/21 12:55

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	13057	11/23/21 16:47	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13000	11/24/21 07:34	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 06:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 22:01	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8632-1
SDG: 12566934

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-8632-1	SW-5	Solid	11/18/21 11:05	11/23/21 13:19
880-8632-2	SW-6	Solid	11/18/21 11:15	11/23/21 13:19
880-8632-3	SW-7	Solid	11/18/21 11:25	11/23/21 13:19
880-8632-4	SW-8	Solid	11/18/21 11:35	11/23/21 13:19
880-8632-5	SW-9	Solid	11/18/21 11:45	11/23/21 13:19
880-8632-6	SW-10	Solid	11/18/21 12:05	11/23/21 13:19
880-8632-7	SW-11	Solid	11/18/21 12:15	11/23/21 13:19
880-8632-8	SW-12	Solid	11/18/21 12:25	11/23/21 13:19
880-8632-9	SW-13	Solid	11/18/21 12:35	11/23/21 13:19
880-8632-10	SW-14	Solid	11/18/21 12:45	11/23/21 13:19
880-8632-11	SW-15	Solid	11/18/21 12:55	11/23/21 13:19



Chain of Custody

Houston TX (281) 240-4200 Dallas, TX (214) 992-0300
Midland TX (432) 704-5440 San Antonio, TX (210) 509-3334
El Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

Work



880-8632 Chain of Custody

www.xenco.com Page _____ of _____

Project Manager	Becky, Haskell @ SHDcom	Bill Direct to Plains
Company Name	SHD	Company Name
Address	2135 S. Loop 250 W.	Address
City, State ZIP	Midland, TX 79703	City, State ZIP
Phone	(432) 688-0086	Email
		"Becky", Algores@SHD.com

Work Order Comments

Program: UST/PST ☐ PRF ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

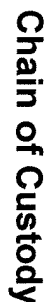
Deliverables EDD ☐ ADAPT ☐ Other _____

[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020:
Circle Method(s) and Metal(s) to be analyzed	8RCRA TCLP / SPLP 6010	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn Hg 1631 / 245 1 / 7470 / 7471

Notice: signature of this document without preinquestment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$55.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated with Eurofins Xeno. A minimum charge of \$55.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated with Eurofins Xeno.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	11/19/21 1420	2 <i>[Signature]</i>	<i>[Signature]</i>	11/23/21
3			4		1309
5			6		



Work Order

Loc: 880
8632

Work Order Comments

Program: UST/PST ☐ PRR ☐ Brownfields ☐ RRD ☐ Superfund ☐

State of Project:

Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables EDD ☐ ADAPT ☐ Other ☐

[illegible]

Total 200.7 / 6010		200.8, 6020:	
8RCRA	13PPM	Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
TCPLP / SPLP 6010		8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
			Hg 1631 / 245 1 / 7470 / 7471

Notice: Signature of this document is required for acknowledgment of samples constitutes a valid purchase order from client company to Eurofins Xeno. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time
1 <i>[Signature]</i>	<i>[Signature]</i>	11/19/21 1600	2 <i>[Signature]</i>	<i>[Signature]</i>	11.23.21
3			4		
5			6		

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-8632-1

SDG Number: 12566934

Login Number: 8632

List Number: 1

Creator: Teel, Brianna

List Source: Eurofins Xenco, Midland

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-8634-1
Laboratory Sample Delivery Group: 12566934
Client Project/Site: Endurance 6"

For:
GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

A handwritten signature in dark ink that reads "Chad A. Bechtold".

Authorized for release by:
11/24/2021 4:27:59 PM
Chad Bechtold, Project Manager
(813)690-3563
chad.bechtold@eurofinset.com

Designee for
Debbie Simmons, Project Manager
(832)986-6768
debbie.simmons@eurofinset.com

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-8634-1
SDG: 12566934

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

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Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Job ID: 880-8634-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-8634-1

Receipt

The samples were received on 11/23/2021 1:19 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C

GC VOA

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

GC Semi VOA

Method 8015MOD_NM: The method blank for preparation batch 880-13089 and analytical batch 880-13046 contained Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-13089 and analytical batch 880-13046 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SW-17 (880-8634-1), SW-18 (880-8634-2), SW-20 (880-8634-4), SW-25 (880-8634-9), SW-26 (880-8634-10), (LCS 880-13089/2-A) and (LCSD 880-13089/3-A). Evidence of matrix interferences is not obvious.

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

HPLC/IC

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-17

Lab Sample ID: 880-8634-1

Date Collected: 11/19/21 11:10

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		11/23/21 14:25	11/23/21 20:25	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		11/23/21 14:25	11/23/21 20:25	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		11/23/21 14:25	11/23/21 20:25	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 14:25	11/23/21 20:25	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		11/23/21 14:25	11/23/21 20:25	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 14:25	11/23/21 20:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	11/23/21 14:25	11/23/21 20:25	1
1,4-Difluorobenzene (Surr)	92		70 - 130	11/23/21 14:25	11/23/21 20:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.0	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	17.0	J	49.9	15.0	mg/Kg		11/23/21 14:43	11/23/21 22:32	1
Diesel Range Organics (Over C10-C28)	<15.0	U F1	49.9	15.0	mg/Kg		11/23/21 14:43	11/23/21 22:32	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/23/21 22:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	11/23/21 14:43	11/23/21 22:32	1
o-Terphenyl	138	S1+	70 - 130	11/23/21 14:43	11/23/21 22:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69.2		5.04	0.865	mg/Kg			11/23/21 22:23	1

Client Sample ID: SW-18

Lab Sample ID: 880-8634-2

Date Collected: 11/19/21 11:20

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 14:25	11/23/21 20:53	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		11/23/21 14:25	11/23/21 20:53	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		11/23/21 14:25	11/23/21 20:53	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/23/21 20:53	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		11/23/21 14:25	11/23/21 20:53	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/23/21 20:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	93		70 - 130	11/23/21 14:25	11/23/21 20:53	1
1,4-Difluorobenzene (Surr)	99		70 - 130	11/23/21 14:25	11/23/21 20:53	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-18

Lab Sample ID: 880-8634-2

Date Collected: 11/19/21 11:20

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	16.0	J	50.0	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 23:37	1
Diesel Range Organics (Over C10-C28)	16.0	J B	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 23:37	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 23:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130				11/23/21 14:43	11/23/21 23:37	1
o-Terphenyl	150	S1+	70 - 130				11/23/21 14:43	11/23/21 23:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	29.0		4.98	0.855	mg/Kg			11/23/21 22:30	1

Client Sample ID: SW-19

Lab Sample ID: 880-8634-3

Date Collected: 11/19/21 11:30

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		11/23/21 14:25	11/23/21 21:21	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		11/23/21 14:25	11/23/21 21:21	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		11/23/21 14:25	11/23/21 21:21	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		11/23/21 14:25	11/23/21 21:21	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		11/23/21 14:25	11/23/21 21:21	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		11/23/21 14:25	11/23/21 21:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130				11/23/21 14:25	11/23/21 21:21	1
1,4-Difluorobenzene (Surr)	92		70 - 130				11/23/21 14:25	11/23/21 21:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	40.3	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	15.8	J	49.9	15.0	mg/Kg		11/23/21 14:43	11/23/21 23:59	1
Diesel Range Organics (Over C10-C28)	24.5	J B	49.9	15.0	mg/Kg		11/23/21 14:43	11/23/21 23:59	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-19

Lab Sample ID: 880-8634-3

Date Collected: 11/19/21 11:30

Matrix: Solid

Date Received: 11/23/21 13:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/23/21 23:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130				11/23/21 14:43	11/23/21 23:59	1
o-Terphenyl	124		70 - 130				11/23/21 14:43	11/23/21 23:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.2		4.95	0.850	mg/Kg			11/23/21 22:52	1

Client Sample ID: SW-20

Lab Sample ID: 880-8634-4

Date Collected: 11/19/21 11:40

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 14:25	11/23/21 21:48	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		11/23/21 14:25	11/23/21 21:48	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		11/23/21 14:25	11/23/21 21:48	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/23/21 21:48	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		11/23/21 14:25	11/23/21 21:48	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/23/21 21:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				11/23/21 14:25	11/23/21 21:48	1
1,4-Difluorobenzene (Surr)	110		70 - 130				11/23/21 14:25	11/23/21 21:48	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	21.5	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 00:20	1
Diesel Range Organics (Over C10-C28)	21.5	J B	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 00:20	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 00:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	137	S1+	70 - 130				11/23/21 14:43	11/24/21 00:20	1
o-Terphenyl	141	S1+	70 - 130				11/23/21 14:43	11/24/21 00:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.0		5.01	0.860	mg/Kg			11/23/21 22:59	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-21

Lab Sample ID: 880-8634-5

Date Collected: 11/19/21 11:50

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 14:25	11/23/21 22:16	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		11/23/21 14:25	11/23/21 22:16	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		11/23/21 14:25	11/23/21 22:16	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/23/21 22:16	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		11/23/21 14:25	11/23/21 22:16	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/23/21 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	11/23/21 14:25	11/23/21 22:16	1
1,4-Difluorobenzene (Surr)	110		70 - 130	11/23/21 14:25	11/23/21 22:16	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.2	J	49.8	14.9	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 00:43	1
Diesel Range Organics (Over C10-C28)	17.2	J B	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 00:43	1
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130	11/23/21 14:43	11/24/21 00:43	1
o-Terphenyl	119		70 - 130	11/23/21 14:43	11/24/21 00:43	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.6		4.97	0.853	mg/Kg			11/23/21 23:07	1

Client Sample ID: SW-22

Lab Sample ID: 880-8634-6

Date Collected: 11/19/21 12:00

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		11/23/21 14:25	11/23/21 22:44	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		11/23/21 14:25	11/23/21 22:44	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		11/23/21 14:25	11/23/21 22:44	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 14:25	11/23/21 22:44	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		11/23/21 14:25	11/23/21 22:44	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 14:25	11/23/21 22:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	11/23/21 14:25	11/23/21 22:44	1
1,4-Difluorobenzene (Surr)	108		70 - 130	11/23/21 14:25	11/23/21 22:44	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-22

Lab Sample ID: 880-8634-6

Date Collected: 11/19/21 12:00

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.8	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 01:06	1
Diesel Range Organics (Over C10-C28)	17.8	J B	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 01:06	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 01:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130				11/23/21 14:43	11/24/21 01:06	1
o-Terphenyl	113		70 - 130				11/23/21 14:43	11/24/21 01:06	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.3		5.00	0.858	mg/Kg			11/23/21 23:14	1

Client Sample ID: SW-23

Lab Sample ID: 880-8634-7

Date Collected: 11/19/21 12:10

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 14:25	11/23/21 23:13	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		11/23/21 14:25	11/23/21 23:13	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		11/23/21 14:25	11/23/21 23:13	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		11/23/21 14:25	11/23/21 23:13	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		11/23/21 14:25	11/23/21 23:13	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		11/23/21 14:25	11/23/21 23:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				11/23/21 14:25	11/23/21 23:13	1
1,4-Difluorobenzene (Surr)	112		70 - 130				11/23/21 14:25	11/23/21 23:13	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	30.9	J	49.8	14.9	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 01:29	1
Diesel Range Organics (Over C10-C28)	30.9	J B	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 01:29	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-23

Lab Sample ID: 880-8634-7

Date Collected: 11/19/21 12:10

Matrix: Solid

Date Received: 11/23/21 13:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg	-	11/23/21 14:43	11/24/21 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	118		70 - 130				11/23/21 14:43	11/24/21 01:29	1
o-Terphenyl	111		70 - 130				11/23/21 14:43	11/24/21 01:29	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	82.9		5.00	0.858	mg/Kg	-		11/23/21 23:22	1

Client Sample ID: SW-24

Lab Sample ID: 880-8634-8

Date Collected: 11/19/21 12:20

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00198	0.000381	mg/Kg	-	11/23/21 14:25	11/23/21 23:41	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg	-	11/23/21 14:25	11/23/21 23:41	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg	-	11/23/21 14:25	11/23/21 23:41	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg	-	11/23/21 14:25	11/23/21 23:41	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg	-	11/23/21 14:25	11/23/21 23:41	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg	-	11/23/21 14:25	11/23/21 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130				11/23/21 14:25	11/23/21 23:41	1
1,4-Difluorobenzene (Surr)	112		70 - 130				11/23/21 14:25	11/23/21 23:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00396	0.00100	mg/Kg	-		11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	28.9	J	50.0	15.0	mg/Kg	-		11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg	-	11/23/21 14:43	11/24/21 01:52	1
Diesel Range Organics (Over C10-C28)	28.9	J B	50.0	15.0	mg/Kg	-	11/23/21 14:43	11/24/21 01:52	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg	-	11/23/21 14:43	11/24/21 01:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	112		70 - 130				11/23/21 14:43	11/24/21 01:52	1
o-Terphenyl	108		70 - 130				11/23/21 14:43	11/24/21 01:52	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.3		5.03	0.863	mg/Kg	-		11/23/21 23:29	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-25

Lab Sample ID: 880-8634-9

Date Collected: 11/19/21 12:30

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		11/23/21 14:25	11/24/21 00:09	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		11/23/21 14:25	11/24/21 00:09	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		11/23/21 14:25	11/24/21 00:09	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		11/23/21 14:25	11/24/21 00:09	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		11/23/21 14:25	11/24/21 00:09	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		11/23/21 14:25	11/24/21 00:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	11/23/21 14:25	11/24/21 00:09	1
1,4-Difluorobenzene (Surr)	105		70 - 130	11/23/21 14:25	11/24/21 00:09	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	18.1	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	18.1	J	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 02:14	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 02:14	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 02:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	131	S1+	70 - 130	11/23/21 14:43	11/24/21 02:14	1
o-Terphenyl	129		70 - 130	11/23/21 14:43	11/24/21 02:14	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51.5		5.04	0.865	mg/Kg			11/23/21 23:36	1

Client Sample ID: SW-26

Lab Sample ID: 880-8634-10

Date Collected: 11/19/21 12:40

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000386	U	0.00200	0.000386	mg/Kg		11/23/21 14:25	11/24/21 00:37	1
Toluene	<0.000457	U	0.00200	0.000457	mg/Kg		11/23/21 14:25	11/24/21 00:37	1
Ethylbenzene	<0.000566	U	0.00200	0.000566	mg/Kg		11/23/21 14:25	11/24/21 00:37	1
m-Xylene & p-Xylene	<0.00101	U	0.00401	0.00101	mg/Kg		11/23/21 14:25	11/24/21 00:37	1
o-Xylene	<0.000345	U	0.00200	0.000345	mg/Kg		11/23/21 14:25	11/24/21 00:37	1
Xylenes, Total	<0.00101	U	0.00401	0.00101	mg/Kg		11/23/21 14:25	11/24/21 00:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	11/23/21 14:25	11/24/21 00:37	1
1,4-Difluorobenzene (Surr)	112		70 - 130	11/23/21 14:25	11/24/21 00:37	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-26

Lab Sample ID: 880-8634-10

Date Collected: 11/19/21 12:40

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00401	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.7	J	50.0	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 02:36	1
Diesel Range Organics (Over C10-C28)	17.7	J B	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 02:36	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 02:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	128		70 - 130				11/23/21 14:43	11/24/21 02:36	1
o-Terphenyl	134	S1+	70 - 130				11/23/21 14:43	11/24/21 02:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	102		4.98	0.855	mg/Kg			11/24/21 00:35	1

Client Sample ID: SW-27

Lab Sample ID: 880-8634-11

Date Collected: 11/19/21 12:50

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 14:25	11/24/21 02:31	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		11/23/21 14:25	11/24/21 02:31	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		11/23/21 14:25	11/24/21 02:31	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/24/21 02:31	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		11/23/21 14:25	11/24/21 02:31	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/24/21 02:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				11/23/21 14:25	11/24/21 02:31	1
1,4-Difluorobenzene (Surr)	90		70 - 130				11/23/21 14:25	11/24/21 02:31	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	27.5	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 03:22	1
Diesel Range Organics (Over C10-C28)	27.5	J B	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 03:22	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-27

Lab Sample ID: 880-8634-11

Date Collected: 11/19/21 12:50

Matrix: Solid

Date Received: 11/23/21 13:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg	-	11/23/21 14:43	11/24/21 03:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	126		70 - 130				11/23/21 14:43	11/24/21 03:22	1
o-Terphenyl	120		70 - 130				11/23/21 14:43	11/24/21 03:22	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.9		5.04	0.865	mg/Kg	-		11/24/21 00:57	1

Client Sample ID: BH-1

Lab Sample ID: 880-8634-12

Date Collected: 11/19/21 10:55

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg	-	11/23/21 14:25	11/24/21 02:59	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg	-	11/23/21 14:25	11/24/21 02:59	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg	-	11/23/21 14:25	11/24/21 02:59	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg	-	11/23/21 14:25	11/24/21 02:59	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg	-	11/23/21 14:25	11/24/21 02:59	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg	-	11/23/21 14:25	11/24/21 02:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	129		70 - 130				11/23/21 14:25	11/24/21 02:59	1
1,4-Difluorobenzene (Surr)	107		70 - 130				11/23/21 14:25	11/24/21 02:59	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00400	0.00101	mg/Kg	-		11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	134		50.0	15.0	mg/Kg	-		11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	18.0	J	50.0	15.0	mg/Kg	-	11/23/21 14:43	11/24/21 03:45	1
Diesel Range Organics (Over C10-C28)	98.5	B	50.0	15.0	mg/Kg	-	11/23/21 14:43	11/24/21 03:45	1
Oil Range Organics (Over C28-C36)	17.3	J	50.0	15.0	mg/Kg	-	11/23/21 14:43	11/24/21 03:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130				11/23/21 14:43	11/24/21 03:45	1
o-Terphenyl	105		70 - 130				11/23/21 14:43	11/24/21 03:45	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.5		4.99	0.857	mg/Kg	-		11/24/21 01:05	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: TP2-2'

Lab Sample ID: 880-8634-13

Date Collected: 11/19/21 13:05

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 14:25	11/24/21 03:28	1
Toluene	<0.000453	U	0.00199	0.000453	mg/Kg		11/23/21 14:25	11/24/21 03:28	1
Ethylbenzene	<0.000562	U	0.00199	0.000562	mg/Kg		11/23/21 14:25	11/24/21 03:28	1
m-Xylene & p-Xylene	<0.00100	U	0.00398	0.00100	mg/Kg		11/23/21 14:25	11/24/21 03:28	1
o-Xylene	<0.000342	U	0.00199	0.000342	mg/Kg		11/23/21 14:25	11/24/21 03:28	1
Xylenes, Total	<0.00100	U	0.00398	0.00100	mg/Kg		11/23/21 14:25	11/24/21 03:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	11/23/21 14:25	11/24/21 03:28	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/23/21 14:25	11/24/21 03:28	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00398	0.00100	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	16.7	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 04:07	1
Diesel Range Organics (Over C10-C28)	16.7	J B	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 04:07	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 04:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	11/23/21 14:43	11/24/21 04:07	1
o-Terphenyl	111		70 - 130	11/23/21 14:43	11/24/21 04:07	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17.1		5.00	0.858	mg/Kg			11/24/21 01:12	1

Client Sample ID: TP2-4'

Lab Sample ID: 880-8634-14

Date Collected: 11/19/21 13:15

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000384	U	0.00200	0.000384	mg/Kg		11/23/21 14:25	11/24/21 03:56	1
Toluene	<0.000455	U	0.00200	0.000455	mg/Kg		11/23/21 14:25	11/24/21 03:56	1
Ethylbenzene	<0.000564	U	0.00200	0.000564	mg/Kg		11/23/21 14:25	11/24/21 03:56	1
m-Xylene & p-Xylene	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 14:25	11/24/21 03:56	1
o-Xylene	<0.000343	U	0.00200	0.000343	mg/Kg		11/23/21 14:25	11/24/21 03:56	1
Xylenes, Total	<0.00101	U	0.00399	0.00101	mg/Kg		11/23/21 14:25	11/24/21 03:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		70 - 130	11/23/21 14:25	11/24/21 03:56	1
1,4-Difluorobenzene (Surr)	103		70 - 130	11/23/21 14:25	11/24/21 03:56	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: TP2-4'

Lab Sample ID: 880-8634-14

Date Collected: 11/19/21 13:15

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00399	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.1	J	50.0	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 04:30	1
Diesel Range Organics (Over C10-C28)	17.1	J B	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 04:30	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 04:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130				11/23/21 14:43	11/24/21 04:30	1
o-Terphenyl	109		70 - 130				11/23/21 14:43	11/24/21 04:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20.5		4.95	0.850	mg/Kg			11/24/21 01:19	1

Client Sample ID: TP2-6'

Lab Sample ID: 880-8634-15

Date Collected: 11/19/21 13:25

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		11/23/21 14:25	11/24/21 04:25	1
Toluene	<0.000458	U	0.00201	0.000458	mg/Kg		11/23/21 14:25	11/24/21 04:25	1
Ethylbenzene	<0.000567	U	0.00201	0.000567	mg/Kg		11/23/21 14:25	11/24/21 04:25	1
m-Xylene & p-Xylene	<0.00101	U	0.00402	0.00101	mg/Kg		11/23/21 14:25	11/24/21 04:25	1
o-Xylene	<0.000345	U	0.00201	0.000345	mg/Kg		11/23/21 14:25	11/24/21 04:25	1
Xylenes, Total	<0.00101	U	0.00402	0.00101	mg/Kg		11/23/21 14:25	11/24/21 04:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130				11/23/21 14:25	11/24/21 04:25	1
1,4-Difluorobenzene (Surr)	107		70 - 130				11/23/21 14:25	11/24/21 04:25	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00402	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	58.7		49.8	14.9	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	41.9	J	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 04:53	1
Diesel Range Organics (Over C10-C28)	16.8	J B	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 04:53	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: TP2-6'

Lab Sample ID: 880-8634-15

Date Collected: 11/19/21 13:25

Matrix: Solid

Date Received: 11/23/21 13:19

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	<14.9	U	49.8	14.9	mg/Kg		11/23/21 14:43	11/24/21 04:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				11/23/21 14:43	11/24/21 04:53	1
o-Terphenyl	118		70 - 130				11/23/21 14:43	11/24/21 04:53	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.9		5.02	0.862	mg/Kg			11/24/21 01:42	1

Client Sample ID: TP2-10'

Lab Sample ID: 880-8634-16

Date Collected: 11/19/21 13:35

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg		11/23/21 14:25	11/24/21 04:53	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg		11/23/21 14:25	11/24/21 04:53	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg		11/23/21 14:25	11/24/21 04:53	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg		11/23/21 14:25	11/24/21 04:53	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg		11/23/21 14:25	11/24/21 04:53	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg		11/23/21 14:25	11/24/21 04:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	113		70 - 130				11/23/21 14:25	11/24/21 04:53	1
1,4-Difluorobenzene (Surr)	110		70 - 130				11/23/21 14:25	11/24/21 04:53	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.8	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:15	1
Diesel Range Organics (Over C10-C28)	17.8	J B	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:15	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130				11/23/21 14:43	11/24/21 05:15	1
o-Terphenyl	124		70 - 130				11/23/21 14:43	11/24/21 05:15	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.2		4.97	0.853	mg/Kg			11/24/21 01:49	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: TP2-12'

Lab Sample ID: 880-8634-17

Date Collected: 11/19/21 13:45

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		11/23/21 14:25	11/24/21 05:21	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		11/23/21 14:25	11/24/21 05:21	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		11/23/21 14:25	11/24/21 05:21	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/24/21 05:21	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		11/23/21 14:25	11/24/21 05:21	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		11/23/21 14:25	11/24/21 05:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	133	S1+	70 - 130	11/23/21 14:25	11/24/21 05:21	1
1,4-Difluorobenzene (Surr)	110		70 - 130	11/23/21 14:25	11/24/21 05:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	17.4	J	49.9	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:37	1
Diesel Range Organics (Over C10-C28)	17.4	J B	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:37	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	127		70 - 130	11/23/21 14:43	11/24/21 05:37	1
o-Terphenyl	119		70 - 130	11/23/21 14:43	11/24/21 05:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.8		4.95	0.850	mg/Kg			11/24/21 01:56	1

Client Sample ID: SW-16

Lab Sample ID: 880-8634-18

Date Collected: 11/19/21 11:00

Matrix: Solid

Date Received: 11/23/21 13:19

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000388	U	0.00202	0.000388	mg/Kg		11/23/21 14:25	11/24/21 05:46	1
Toluene	<0.000460	U	0.00202	0.000460	mg/Kg		11/23/21 14:25	11/24/21 05:46	1
Ethylbenzene	<0.000570	U	0.00202	0.000570	mg/Kg		11/23/21 14:25	11/24/21 05:46	1
m-Xylene & p-Xylene	<0.00102	U	0.00403	0.00102	mg/Kg		11/23/21 14:25	11/24/21 05:46	1
o-Xylene	<0.000347	U	0.00202	0.000347	mg/Kg		11/23/21 14:25	11/24/21 05:46	1
Xylenes, Total	<0.00102	U	0.00403	0.00102	mg/Kg		11/23/21 14:25	11/24/21 05:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130	11/23/21 14:25	11/24/21 05:46	1
1,4-Difluorobenzene (Surr)	106		70 - 130	11/23/21 14:25	11/24/21 05:46	1

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Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-16

Lab Sample ID: 880-8634-18

Date Collected: 11/19/21 11:00

Matrix: Solid

Date Received: 11/23/21 13:19

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00403	0.00102	mg/Kg			11/24/21 11:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	63.4		50.0	15.0	mg/Kg			11/23/21 08:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	26.4	J	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:59	1
Diesel Range Organics (Over C10-C28)	37.0	J B	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:59	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/24/21 05:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	116		70 - 130				11/23/21 14:43	11/24/21 05:59	1
o-Terphenyl	115		70 - 130				11/23/21 14:43	11/24/21 05:59	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19.2		4.99	0.857	mg/Kg			11/24/21 02:04	1

Eurofins Xenco, Midland

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-8634-1	SW-17	120	92
880-8634-1 MS	SW-17	101	116
880-8634-1 MSD	SW-17	103	122
880-8634-2	SW-18	93	99
880-8634-3	SW-19	88	92
880-8634-4	SW-20	103	110
880-8634-5	SW-21	109	110
880-8634-6	SW-22	107	108
880-8634-7	SW-23	104	112
880-8634-8	SW-24	111	112
880-8634-9	SW-25	107	105
880-8634-10	SW-26	111	112
880-8634-11	SW-27	124	90
880-8634-12	BH-1	129	107
880-8634-13	TP2-2'	105	97
880-8634-14	TP2-4'	96	103
880-8634-15	TP2-6'	100	107
880-8634-16	TP2-10'	113	110
880-8634-17	TP2-12'	133 S1+	110
880-8634-18	SW-16	120	106
LCS 880-13087/1-A	Lab Control Sample	103	111
LCSD 880-13087/2-A	Lab Control Sample Dup	100	108
MB 880-13087/5-A	Method Blank	71	97
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8634-1	SW-17	136 S1+	138 S1+
880-8634-1 MS	SW-17	138 S1+	125
880-8634-1 MSD	SW-17	120	104
880-8634-2	SW-18	144 S1+	150 S1+
880-8634-3	SW-19	127	124
880-8634-4	SW-20	137 S1+	141 S1+
880-8634-5	SW-21	124	119
880-8634-6	SW-22	117	113
880-8634-7	SW-23	118	111
880-8634-8	SW-24	112	108
880-8634-9	SW-25	131 S1+	129
880-8634-10	SW-26	128	134 S1+
880-8634-11	SW-27	126	120
880-8634-12	BH-1	109	105
880-8634-13	TP2-2'	117	111
880-8634-14	TP2-4'	117	109

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Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8634-15	TP2-6'	120	118
880-8634-16	TP2-10'	127	124
880-8634-17	TP2-12'	127	119
880-8634-18	SW-16	116	115
LCS 880-13089/2-A	Lab Control Sample	299 S1+	283 S1+
LCSD 880-13089/3-A	Lab Control Sample Dup	326 S1+	306 S1+
MB 880-13089/1-A	Method Blank	144 S1+	140 S1+

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-13087/5-A

Matrix: Solid

Analysis Batch: 13097

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13087

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		11/23/21 14:25	11/23/21 19:58	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/21 14:25	11/23/21 19:58	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		11/23/21 14:25	11/23/21 19:58	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		11/23/21 14:25	11/23/21 19:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	11/23/21 14:25	11/23/21 19:58	1
1,4-Difluorobenzene (Surr)	97		70 - 130	11/23/21 14:25	11/23/21 19:58	1

Lab Sample ID: LCS 880-13087/1-A

Matrix: Solid

Analysis Batch: 13097

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13087

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09322		mg/Kg		93	70 - 130
Toluene	0.100	0.09093		mg/Kg		91	70 - 130
Ethylbenzene	0.100	0.09075		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.2008		mg/Kg		100	70 - 130
o-Xylene	0.100	0.09406		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: LCSD 880-13087/2-A

Matrix: Solid

Analysis Batch: 13097

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13087

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09017		mg/Kg		90	70 - 130	3	35
Toluene	0.100	0.08766		mg/Kg		88	70 - 130	4	35
Ethylbenzene	0.100	0.08891		mg/Kg		89	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1967		mg/Kg		98	70 - 130	2	35
o-Xylene	0.100	0.09053		mg/Kg		91	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: 880-8634-1 MS

Matrix: Solid

Analysis Batch: 13097

Client Sample ID: SW-17

Prep Type: Total/NA

Prep Batch: 13087

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.000384	U	0.0998	0.07882		mg/Kg		79	70 - 130
Toluene	<0.000455	U	0.0998	0.07875		mg/Kg		79	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

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

Lab Sample ID: 880-8634-1 MS

Matrix: Solid

Analysis Batch: 13097

Client Sample ID: SW-17

Prep Type: Total/NA

Prep Batch: 13087

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.000564	U	0.0998	0.07871		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00101	U	0.200	0.1735		mg/Kg		87	70 - 130
o-Xylene	<0.000343	U	0.0998	0.08048		mg/Kg		81	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	116		70 - 130

Lab Sample ID: 880-8634-1 MSD

Matrix: Solid

Analysis Batch: 13097

Client Sample ID: SW-17

Prep Type: Total/NA

Prep Batch: 13087

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	<0.000384	U	0.0994	0.07921		mg/Kg		80	70 - 130	0	35
Toluene	<0.000455	U	0.0994	0.07693		mg/Kg		77	70 - 130	2	35
Ethylbenzene	<0.000564	U	0.0994	0.07705		mg/Kg		78	70 - 130	2	35
m-Xylene & p-Xylene	<0.00101	U	0.199	0.1699		mg/Kg		85	70 - 130	2	35
o-Xylene	<0.000343	U	0.0994	0.08075		mg/Kg		81	70 - 130	0	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	122		70 - 130

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

Lab Sample ID: MB 880-13089/1-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13089

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 21:25	1
Diesel Range Organics (Over C10-C28)	15.45	J	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 21:25	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		11/23/21 14:43	11/23/21 21:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130	11/23/21 14:43	11/23/21 21:25	1
o-Terphenyl	140	S1+	70 - 130	11/23/21 14:43	11/23/21 21:25	1

Lab Sample ID: LCS 880-13089/2-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13089

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	772.9		mg/Kg		77	70 - 130
Diesel Range Organics (Over C10-C28)	1000	879.4		mg/Kg		88	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

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

Lab Sample ID: LCS 880-13089/2-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13089

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	299	S1+	70 - 130
o-Terphenyl	283	S1+	70 - 130

Lab Sample ID: LCSD 880-13089/3-A

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13089

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	804.3		mg/Kg		80	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	992.4		mg/Kg		99	70 - 130	12	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	326	S1+	70 - 130
o-Terphenyl	306	S1+	70 - 130

Lab Sample ID: 880-8634-1 MS

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: SW-17

Prep Type: Total/NA

Prep Batch: 13089

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	17.0	J	997	1289		mg/Kg		128	70 - 130
Diesel Range Organics (Over C10-C28)	<15.0	U F1	997	1341	F1	mg/Kg		135	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	138	S1+	70 - 130
o-Terphenyl	125		70 - 130

Lab Sample ID: 880-8634-1 MSD

Matrix: Solid

Analysis Batch: 13046

Client Sample ID: SW-17

Prep Type: Total/NA

Prep Batch: 13089

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	17.0	J	999	1162		mg/Kg		115	70 - 130	10	20
Diesel Range Organics (Over C10-C28)	<15.0	U F1	999	1133		mg/Kg		113	70 - 130	17	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	120		70 - 130
o-Terphenyl	104		70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-13082/1-A

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			11/23/21 19:55	1

Lab Sample ID: LCS 880-13082/2-A

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	259.4		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-13082/3-A

Matrix: Solid

Analysis Batch: 13162

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	260.3		mg/Kg		104	90 - 110	0	20

Lab Sample ID: MB 880-13083/1-A

Matrix: Solid

Analysis Batch: 13163

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			11/24/21 00:13	1

Lab Sample ID: LCS 880-13083/2-A

Matrix: Solid

Analysis Batch: 13163

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	259.0		mg/Kg		104	90 - 110

Lab Sample ID: LCSD 880-13083/3-A

Matrix: Solid

Analysis Batch: 13163

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	259.0		mg/Kg		104	90 - 110	0	20

Lab Sample ID: 880-8634-10 MS

Matrix: Solid

Analysis Batch: 13163

Client Sample ID: SW-26

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	102		249	347.7		mg/Kg		99	90 - 110

Lab Sample ID: 880-8634-10 MSD

Matrix: Solid

Analysis Batch: 13163

Client Sample ID: SW-26

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	102		249	347.4		mg/Kg		99	90 - 110	0	20

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

GC VOA

Analysis Batch: 12945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Total/NA	Solid	Total BTEX	
880-8634-2	SW-18	Total/NA	Solid	Total BTEX	
880-8634-3	SW-19	Total/NA	Solid	Total BTEX	
880-8634-4	SW-20	Total/NA	Solid	Total BTEX	
880-8634-5	SW-21	Total/NA	Solid	Total BTEX	
880-8634-6	SW-22	Total/NA	Solid	Total BTEX	
880-8634-7	SW-23	Total/NA	Solid	Total BTEX	
880-8634-8	SW-24	Total/NA	Solid	Total BTEX	
880-8634-9	SW-25	Total/NA	Solid	Total BTEX	
880-8634-10	SW-26	Total/NA	Solid	Total BTEX	
880-8634-11	SW-27	Total/NA	Solid	Total BTEX	
880-8634-12	BH-1	Total/NA	Solid	Total BTEX	
880-8634-13	TP2-2'	Total/NA	Solid	Total BTEX	
880-8634-14	TP2-4'	Total/NA	Solid	Total BTEX	
880-8634-15	TP2-6'	Total/NA	Solid	Total BTEX	
880-8634-16	TP2-10'	Total/NA	Solid	Total BTEX	
880-8634-17	TP2-12'	Total/NA	Solid	Total BTEX	
880-8634-18	SW-16	Total/NA	Solid	Total BTEX	

Prep Batch: 13087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Total/NA	Solid	5035	
880-8634-2	SW-18	Total/NA	Solid	5035	
880-8634-3	SW-19	Total/NA	Solid	5035	
880-8634-4	SW-20	Total/NA	Solid	5035	
880-8634-5	SW-21	Total/NA	Solid	5035	
880-8634-6	SW-22	Total/NA	Solid	5035	
880-8634-7	SW-23	Total/NA	Solid	5035	
880-8634-8	SW-24	Total/NA	Solid	5035	
880-8634-9	SW-25	Total/NA	Solid	5035	
880-8634-10	SW-26	Total/NA	Solid	5035	
880-8634-11	SW-27	Total/NA	Solid	5035	
880-8634-12	BH-1	Total/NA	Solid	5035	
880-8634-13	TP2-2'	Total/NA	Solid	5035	
880-8634-14	TP2-4'	Total/NA	Solid	5035	
880-8634-15	TP2-6'	Total/NA	Solid	5035	
880-8634-16	TP2-10'	Total/NA	Solid	5035	
880-8634-17	TP2-12'	Total/NA	Solid	5035	
880-8634-18	SW-16	Total/NA	Solid	5035	
MB 880-13087/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13087/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13087/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-8634-1 MS	SW-17	Total/NA	Solid	5035	
880-8634-1 MSD	SW-17	Total/NA	Solid	5035	

Analysis Batch: 13097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Total/NA	Solid	8021B	13087
880-8634-2	SW-18	Total/NA	Solid	8021B	13087
880-8634-3	SW-19	Total/NA	Solid	8021B	13087
880-8634-4	SW-20	Total/NA	Solid	8021B	13087

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

GC VOA (Continued)

Analysis Batch: 13097 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-5	SW-21	Total/NA	Solid	8021B	13087
880-8634-6	SW-22	Total/NA	Solid	8021B	13087
880-8634-7	SW-23	Total/NA	Solid	8021B	13087
880-8634-8	SW-24	Total/NA	Solid	8021B	13087
880-8634-9	SW-25	Total/NA	Solid	8021B	13087
880-8634-10	SW-26	Total/NA	Solid	8021B	13087
880-8634-11	SW-27	Total/NA	Solid	8021B	13087
880-8634-12	BH-1	Total/NA	Solid	8021B	13087
880-8634-13	TP2-2'	Total/NA	Solid	8021B	13087
880-8634-14	TP2-4'	Total/NA	Solid	8021B	13087
880-8634-15	TP2-6'	Total/NA	Solid	8021B	13087
880-8634-16	TP2-10'	Total/NA	Solid	8021B	13087
880-8634-17	TP2-12'	Total/NA	Solid	8021B	13087
880-8634-18	SW-16	Total/NA	Solid	8021B	13087
MB 880-13087/5-A	Method Blank	Total/NA	Solid	8021B	13087
LCS 880-13087/1-A	Lab Control Sample	Total/NA	Solid	8021B	13087
LCSD 880-13087/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13087
880-8634-1 MS	SW-17	Total/NA	Solid	8021B	13087
880-8634-1 MSD	SW-17	Total/NA	Solid	8021B	13087

GC Semi VOA

Analysis Batch: 12781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Total/NA	Solid	8015 NM	
880-8634-2	SW-18	Total/NA	Solid	8015 NM	
880-8634-3	SW-19	Total/NA	Solid	8015 NM	
880-8634-4	SW-20	Total/NA	Solid	8015 NM	
880-8634-5	SW-21	Total/NA	Solid	8015 NM	
880-8634-6	SW-22	Total/NA	Solid	8015 NM	
880-8634-7	SW-23	Total/NA	Solid	8015 NM	
880-8634-8	SW-24	Total/NA	Solid	8015 NM	
880-8634-9	SW-25	Total/NA	Solid	8015 NM	
880-8634-10	SW-26	Total/NA	Solid	8015 NM	
880-8634-11	SW-27	Total/NA	Solid	8015 NM	
880-8634-12	BH-1	Total/NA	Solid	8015 NM	
880-8634-13	TP2-2'	Total/NA	Solid	8015 NM	
880-8634-14	TP2-4'	Total/NA	Solid	8015 NM	
880-8634-15	TP2-6'	Total/NA	Solid	8015 NM	
880-8634-16	TP2-10'	Total/NA	Solid	8015 NM	
880-8634-17	TP2-12'	Total/NA	Solid	8015 NM	
880-8634-18	SW-16	Total/NA	Solid	8015 NM	

Analysis Batch: 13046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Total/NA	Solid	8015B NM	13089
880-8634-2	SW-18	Total/NA	Solid	8015B NM	13089
880-8634-3	SW-19	Total/NA	Solid	8015B NM	13089
880-8634-4	SW-20	Total/NA	Solid	8015B NM	13089
880-8634-5	SW-21	Total/NA	Solid	8015B NM	13089
880-8634-6	SW-22	Total/NA	Solid	8015B NM	13089

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

GC Semi VOA (Continued)

Analysis Batch: 13046 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-7	SW-23	Total/NA	Solid	8015B NM	13089
880-8634-8	SW-24	Total/NA	Solid	8015B NM	13089
880-8634-9	SW-25	Total/NA	Solid	8015B NM	13089
880-8634-10	SW-26	Total/NA	Solid	8015B NM	13089
880-8634-11	SW-27	Total/NA	Solid	8015B NM	13089
880-8634-12	BH-1	Total/NA	Solid	8015B NM	13089
880-8634-13	TP2-2'	Total/NA	Solid	8015B NM	13089
880-8634-14	TP2-4'	Total/NA	Solid	8015B NM	13089
880-8634-15	TP2-6'	Total/NA	Solid	8015B NM	13089
880-8634-16	TP2-10'	Total/NA	Solid	8015B NM	13089
880-8634-17	TP2-12'	Total/NA	Solid	8015B NM	13089
880-8634-18	SW-16	Total/NA	Solid	8015B NM	13089
MB 880-13089/1-A	Method Blank	Total/NA	Solid	8015B NM	13089
LCS 880-13089/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13089
LCSD 880-13089/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13089
880-8634-1 MS	SW-17	Total/NA	Solid	8015B NM	13089
880-8634-1 MSD	SW-17	Total/NA	Solid	8015B NM	13089

Prep Batch: 13089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Total/NA	Solid	8015NM Prep	
880-8634-2	SW-18	Total/NA	Solid	8015NM Prep	
880-8634-3	SW-19	Total/NA	Solid	8015NM Prep	
880-8634-4	SW-20	Total/NA	Solid	8015NM Prep	
880-8634-5	SW-21	Total/NA	Solid	8015NM Prep	
880-8634-6	SW-22	Total/NA	Solid	8015NM Prep	
880-8634-7	SW-23	Total/NA	Solid	8015NM Prep	
880-8634-8	SW-24	Total/NA	Solid	8015NM Prep	
880-8634-9	SW-25	Total/NA	Solid	8015NM Prep	
880-8634-10	SW-26	Total/NA	Solid	8015NM Prep	
880-8634-11	SW-27	Total/NA	Solid	8015NM Prep	
880-8634-12	BH-1	Total/NA	Solid	8015NM Prep	
880-8634-13	TP2-2'	Total/NA	Solid	8015NM Prep	
880-8634-14	TP2-4'	Total/NA	Solid	8015NM Prep	
880-8634-15	TP2-6'	Total/NA	Solid	8015NM Prep	
880-8634-16	TP2-10'	Total/NA	Solid	8015NM Prep	
880-8634-17	TP2-12'	Total/NA	Solid	8015NM Prep	
880-8634-18	SW-16	Total/NA	Solid	8015NM Prep	
MB 880-13089/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13089/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13089/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8634-1 MS	SW-17	Total/NA	Solid	8015NM Prep	
880-8634-1 MSD	SW-17	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 13082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Soluble	Solid	DI Leach	
880-8634-2	SW-18	Soluble	Solid	DI Leach	
880-8634-3	SW-19	Soluble	Solid	DI Leach	

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

HPLC/IC (Continued)

Leach Batch: 13082 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-4	SW-20	Soluble	Solid	DI Leach	
880-8634-5	SW-21	Soluble	Solid	DI Leach	
880-8634-6	SW-22	Soluble	Solid	DI Leach	
880-8634-7	SW-23	Soluble	Solid	DI Leach	
880-8634-8	SW-24	Soluble	Solid	DI Leach	
880-8634-9	SW-25	Soluble	Solid	DI Leach	
MB 880-13082/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13082/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13082/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Leach Batch: 13083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-10	SW-26	Soluble	Solid	DI Leach	
880-8634-11	SW-27	Soluble	Solid	DI Leach	
880-8634-12	BH-1	Soluble	Solid	DI Leach	
880-8634-13	TP2-2'	Soluble	Solid	DI Leach	
880-8634-14	TP2-4'	Soluble	Solid	DI Leach	
880-8634-15	TP2-6'	Soluble	Solid	DI Leach	
880-8634-16	TP2-10'	Soluble	Solid	DI Leach	
880-8634-17	TP2-12'	Soluble	Solid	DI Leach	
880-8634-18	SW-16	Soluble	Solid	DI Leach	
MB 880-13083/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13083/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13083/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-8634-10 MS	SW-26	Soluble	Solid	DI Leach	
880-8634-10 MSD	SW-26	Soluble	Solid	DI Leach	

Analysis Batch: 13162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-1	SW-17	Soluble	Solid	300.0	13082
880-8634-2	SW-18	Soluble	Solid	300.0	13082
880-8634-3	SW-19	Soluble	Solid	300.0	13082
880-8634-4	SW-20	Soluble	Solid	300.0	13082
880-8634-5	SW-21	Soluble	Solid	300.0	13082
880-8634-6	SW-22	Soluble	Solid	300.0	13082
880-8634-7	SW-23	Soluble	Solid	300.0	13082
880-8634-8	SW-24	Soluble	Solid	300.0	13082
880-8634-9	SW-25	Soluble	Solid	300.0	13082
MB 880-13082/1-A	Method Blank	Soluble	Solid	300.0	13082
LCS 880-13082/2-A	Lab Control Sample	Soluble	Solid	300.0	13082
LCSD 880-13082/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13082

Analysis Batch: 13163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-10	SW-26	Soluble	Solid	300.0	13083
880-8634-11	SW-27	Soluble	Solid	300.0	13083
880-8634-12	BH-1	Soluble	Solid	300.0	13083
880-8634-13	TP2-2'	Soluble	Solid	300.0	13083
880-8634-14	TP2-4'	Soluble	Solid	300.0	13083
880-8634-15	TP2-6'	Soluble	Solid	300.0	13083
880-8634-16	TP2-10'	Soluble	Solid	300.0	13083

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QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

HPLC/IC (Continued)

Analysis Batch: 13163 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8634-17	TP2-12'	Soluble	Solid	300.0	13083
880-8634-18	SW-16	Soluble	Solid	300.0	13083
MB 880-13083/1-A	Method Blank	Soluble	Solid	300.0	13083
LCS 880-13083/2-A	Lab Control Sample	Soluble	Solid	300.0	13083
LCSD 880-13083/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13083
880-8634-10 MS	SW-26	Soluble	Solid	300.0	13083
880-8634-10 MSD	SW-26	Soluble	Solid	300.0	13083

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-17

Date Collected: 11/19/21 11:10

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 20:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/23/21 22:32	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 22:23	SC	XEN MID

Client Sample ID: SW-18

Date Collected: 11/19/21 11:20

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 20:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/23/21 23:37	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 22:30	SC	XEN MID

Client Sample ID: SW-19

Date Collected: 11/19/21 11:30

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 21:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/23/21 23:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 22:52	SC	XEN MID

Client Sample ID: SW-20

Date Collected: 11/19/21 11:40

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 21:48	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-20

Lab Sample ID: 880-8634-4

Date Collected: 11/19/21 11:40

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 00:20	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 22:59	SC	XEN MID

Client Sample ID: SW-21

Lab Sample ID: 880-8634-5

Date Collected: 11/19/21 11:50

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 22:16	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 00:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 23:07	SC	XEN MID

Client Sample ID: SW-22

Lab Sample ID: 880-8634-6

Date Collected: 11/19/21 12:00

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 22:44	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 01:06	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 23:14	SC	XEN MID

Client Sample ID: SW-23

Lab Sample ID: 880-8634-7

Date Collected: 11/19/21 12:10

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 23:13	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 01:29	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-23

Date Collected: 11/19/21 12:10

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 23:22	SC	XEN MID

Client Sample ID: SW-24

Date Collected: 11/19/21 12:20

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/23/21 23:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 01:52	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 23:29	SC	XEN MID

Client Sample ID: SW-25

Date Collected: 11/19/21 12:30

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 00:09	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 02:14	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	13082	11/23/21 13:51	CA	XEN MID
Soluble	Analysis	300.0		1			13162	11/23/21 23:36	SC	XEN MID

Client Sample ID: SW-26

Date Collected: 11/19/21 12:40

Date Received: 11/23/21 13:19

Lab Sample ID: 880-8634-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 00:37	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 02:36	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 00:35	SC	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: SW-27

Lab Sample ID: 880-8634-11

Date Collected: 11/19/21 12:50

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 02:31	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 03:22	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 00:57	SC	XEN MID

Client Sample ID: BH-1

Lab Sample ID: 880-8634-12

Date Collected: 11/19/21 10:55

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 02:59	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 03:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 01:05	SC	XEN MID

Client Sample ID: TP2-2'

Lab Sample ID: 880-8634-13

Date Collected: 11/19/21 13:05

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 03:28	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 04:07	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 01:12	SC	XEN MID

Client Sample ID: TP2-4'

Lab Sample ID: 880-8634-14

Date Collected: 11/19/21 13:15

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 03:56	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: TP2-4'

Lab Sample ID: 880-8634-14

Date Collected: 11/19/21 13:15

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 04:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 01:19	SC	XEN MID

Client Sample ID: TP2-6'

Lab Sample ID: 880-8634-15

Date Collected: 11/19/21 13:25

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 04:25	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 04:53	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 01:42	SC	XEN MID

Client Sample ID: TP2-10'

Lab Sample ID: 880-8634-16

Date Collected: 11/19/21 13:35

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 04:53	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 05:15	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 01:49	SC	XEN MID

Client Sample ID: TP2-12'

Lab Sample ID: 880-8634-17

Date Collected: 11/19/21 13:45

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 05:21	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 05:37	AJ	XEN MID

Eurofins Xenco, Midland

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Client Sample ID: TP2-12'

Lab Sample ID: 880-8634-17

Date Collected: 11/19/21 13:45

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.05 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 01:56	SC	XEN MID

Client Sample ID: SW-16

Lab Sample ID: 880-8634-18

Date Collected: 11/19/21 11:00

Matrix: Solid

Date Received: 11/23/21 13:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	13087	11/23/21 14:25	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13097	11/24/21 05:46	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			12945	11/24/21 11:03	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			12781	11/23/21 08:35	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13089	11/23/21 14:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13046	11/24/21 05:59	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	13083	11/23/21 13:56	CA	XEN MID
Soluble	Analysis	300.0		1			13163	11/24/21 02:04	SC	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8634-1
SDG: 12566934

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-8634-1	SW-17	Solid	11/19/21 11:10	11/23/21 13:19
880-8634-2	SW-18	Solid	11/19/21 11:20	11/23/21 13:19
880-8634-3	SW-19	Solid	11/19/21 11:30	11/23/21 13:19
880-8634-4	SW-20	Solid	11/19/21 11:40	11/23/21 13:19
880-8634-5	SW-21	Solid	11/19/21 11:50	11/23/21 13:19
880-8634-6	SW-22	Solid	11/19/21 12:00	11/23/21 13:19
880-8634-7	SW-23	Solid	11/19/21 12:10	11/23/21 13:19
880-8634-8	SW-24	Solid	11/19/21 12:20	11/23/21 13:19
880-8634-9	SW-25	Solid	11/19/21 12:30	11/23/21 13:19
880-8634-10	SW-26	Solid	11/19/21 12:40	11/23/21 13:19
880-8634-11	SW-27	Solid	11/19/21 12:50	11/23/21 13:19
880-8634-12	BH-1	Solid	11/19/21 10:55	11/23/21 13:19
880-8634-13	TP2-2'	Solid	11/19/21 13:05	11/23/21 13:19
880-8634-14	TP2-4'	Solid	11/19/21 13:15	11/23/21 13:19
880-8634-15	TP2-6'	Solid	11/19/21 13:25	11/23/21 13:19
880-8634-16	TP2-10'	Solid	11/19/21 13:35	11/23/21 13:19
880-8634-17	TP2-12'	Solid	11/19/21 13:45	11/23/21 13:19
880-8634-18	SW-16	Solid	11/19/21 11:00	11/23/21 13:19



Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
 Midland TX (432) 704-5440 San Antonio, TX (210) 509-3334
 El Paso TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

W. 880-8634 Chain of Custody



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Project Manager	Becky Hostetler@GHD.com	Bill direct to Plains
Company Name	GHD	Company Name
Address	2135 S. Loop. 250 W.	Address
City, State Zip	Midland, TX 79703	City, State Zip
Phone	(432) 686-0086	Email
Project Name	Endurance 6"	Turn Around
Project Number	12566934	Due Date
Project Location	Eddy County, NM	Due Date
Sampler's Name	Heath Boyd	TAT starts the day received by the lab if received by 4:30pm
PO #		

Program: UST/PST ☐ PRF ☐ Brownfields ☐ RRD ☐ Superfund ☐
State of Project:
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables EDD ☐ ADAPT ☐ Other ☐

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont.	Parameters	Preservative Codes
SW-17	5	11/19/21	11:10		Comp	1	TPH 8015M	None NO DI Water H ₂ O
SW-18	1		11:20			1	BTEX 8021B	Cool Cool MeOH Me
SW-19	1		11:30			1	Chloride 300	HCL HC HNO ₃ HN
SW-20	1		11:40			1		H ₂ SO ₄ H ₂ NaOH Na
SW-21	1		11:50			1		H ₃ PO ₄ HP
SW-22	1		12:00			1		NaHSO ₄ NABIS
SW-23	1		12:10			1		Na ₂ S ₂ O ₃ NaSO ₃
SW-24	1		12:20			1		Zn Acetate+NaOH Zn
SW-25	1		12:30			1		NaOH+Ascorbic Acid SAPC
SW-26	1		12:40			1		

Sample Comments

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg 1631 / 2451 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time



Chain of Custody

Houston TX (281) 240-4200 Dallas TX (214) 902-0300
Midland TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs NM (575) 392-7550 Carlsbad NM (575) 988-3199

Work Order No.:

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Project Manager	Becky Has Kell	GHD.COM	Bill to (if different)	Bill Direct to Plains
Company Name:	GHD		Company Name	
Address:			Address:	
City, State ZIP			City, State ZIP	
Phone:			Email	"Becky" ALGROVES@PLAINS.COM

Work Order Comments	
Program UST/PST ☐ PRF ☐ Brownfields ☐ RRQ ☐ Superfund ☐	
State of Project:	
Reporting Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level N ☐	
Deliverables EDD ☐ ADAPT ☐ Other ☐	

Project Name		Endurance 6"		Turn Around		ANALYSIS REQUEST													Preservative Codes				
Project Number		1256934		☐ Routine ☐ Rush															None NO DI Water H ₂ O				
Project Location		Eddy County, NM		Due Date															Cool Cool MeOH Me				
Sampler's Name		Heather Boyd		TAT starts the day received by the lab if received by 4:30pm															HCL HC HNO ₃ HN				
PO #:																			H ₂ SO ₄ H ₂ NaOH Na				
SAMPLE RECEIPT						Parameters																	
Samples Received Intact:		Temp Blank	Yes	No	Thermometer ID	Well Ice	Yes	No														H ₃ PO ₄ HP	
Cooler Custody Seals		Yes	No	N/A	Correction Factor														NaHSO ₄ NABIS				
Sample Custody Seals		Yes	No	N/A	Temperature Reading														Na ₂ S ₂ O ₃ NaSO ₃				
Total Containers		Corrected Temperature																	Zn Acetate+NaOH Zn				
																			NaOH+Ascorbic Acid SAPC				
Sample Identification		Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont														Sample Comments		
SW-77		S	11/19/21	1250		Comp	1	TPH 8015M															
BH-1				1055			1	BTX 80213															
TPC-2'				1305			1	Chloride 300															
TPC-4'				1315			1																
TPC-6'				1325			1																
TPC-10'				1335			1																
TPC-12'				1345			1																
SW-16		S	11/19/21	1100		Comp	1																

Total 200.7 / 6010	200.8 / 6020:	8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U							Hg	1631 / 245 1 / 7470 / 7471					

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$3 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be applied unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by (Signature)	Received by (Signature)	Date/Time

11/19/21	1470	2	1175.3
11/19/21	1470	2	1175.3

[illegible]

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-8634-1

SDG Number: 12566934

Login Number: 8634**List Number: 1****Creator: Teel, Brianna****List Source: Eurofins Xenco, Midland**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-8942-1

Laboratory Sample Delivery Group: Eddy County NM
Client Project/Site: Endurance 6"

For:

GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

A handwritten signature in black ink, appearing to read "Debbie Simmons".

Authorized for release by:
12/6/2021 5:45:27 PM

Debbie Simmons, Project Manager
(832)986-6768
debbie.simmons@eurofinset.com

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www.eurofinsus.com/Env

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-8942-1
SDG: Eddy County NM

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Eurofins Xenco, Midland

Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Job ID: 880-8942-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-8942-1

Receipt

The samples were received on 12/3/2021 2:06 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 25.0°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Client Sample ID: SW-8A

Lab Sample ID: 880-8942-1

Date Collected: 12/03/21 10:30

Matrix: Solid

Date Received: 12/03/21 14:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		12/03/21 15:45	12/04/21 19:18	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		12/03/21 15:45	12/04/21 19:18	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		12/03/21 15:45	12/04/21 19:18	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		12/03/21 15:45	12/04/21 19:18	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		12/03/21 15:45	12/04/21 19:18	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		12/03/21 15:45	12/04/21 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130	12/03/21 15:45	12/04/21 19:18	1
1,4-Difluorobenzene (Surr)	101		70 - 130	12/03/21 15:45	12/04/21 19:18	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			12/06/21 15:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	65.1		49.9	15.0	mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		12/03/21 15:30	12/04/21 12:30	1
Diesel Range Organics (Over C10-C28)	26.4	J	49.9	15.0	mg/Kg		12/03/21 15:30	12/04/21 12:30	1
Oil Range Organics (Over C28-C36)	38.7	J	49.9	15.0	mg/Kg		12/03/21 15:30	12/04/21 12:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	12/03/21 15:30	12/04/21 12:30	1
o-Terphenyl	91		70 - 130	12/03/21 15:30	12/04/21 12:30	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92.6		5.00	0.858	mg/Kg			12/04/21 14:33	1

Client Sample ID: SW-13A

Lab Sample ID: 880-8942-2

Date Collected: 12/03/21 10:45

Matrix: Solid

Date Received: 12/03/21 14:06

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		12/03/21 15:45	12/04/21 19:39	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		12/03/21 15:45	12/04/21 19:39	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		12/03/21 15:45	12/04/21 19:39	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		12/03/21 15:45	12/04/21 19:39	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		12/03/21 15:45	12/04/21 19:39	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		12/03/21 15:45	12/04/21 19:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	136	S1+	70 - 130	12/03/21 15:45	12/04/21 19:39	1
1,4-Difluorobenzene (Surr)	111		70 - 130	12/03/21 15:45	12/04/21 19:39	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Client Sample ID: SW-13A

Lab Sample ID: 880-8942-2

Date Collected: 12/03/21 10:45

Matrix: Solid

Date Received: 12/03/21 14:06

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00400	0.00101	mg/Kg			12/06/21 15:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	23.7	J	50.0	15.0	mg/Kg			12/06/21 15:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		12/03/21 15:30	12/04/21 13:32	1
Diesel Range Organics (Over C10-C28)	23.7	J	50.0	15.0	mg/Kg		12/03/21 15:30	12/04/21 13:32	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		12/03/21 15:30	12/04/21 13:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	75		70 - 130				12/03/21 15:30	12/04/21 13:32	1
o-Terphenyl	82		70 - 130				12/03/21 15:30	12/04/21 13:32	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	32.9		5.02	0.862	mg/Kg			12/04/21 14:45	1

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-8942-1	SW-8A	131 S1+	101
880-8942-2	SW-13A	136 S1+	111
LCS 880-13835/1-A	Lab Control Sample	113	95
LCSD 880-13835/2-A	Lab Control Sample Dup	107	95
MB 880-13835/5-A	Method Blank	127	100
MB 880-13836/5-A	Method Blank	122	97
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-8942-1	SW-8A	81	91
880-8942-1 MS	SW-8A	78	80
880-8942-1 MSD	SW-8A	78	81
880-8942-2	SW-13A	75	82
LCS 880-13892/2-A	Lab Control Sample	81	82
LCSD 880-13892/3-A	Lab Control Sample Dup	83	89
MB 880-13892/1-A	Method Blank	83	101
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-13835/5-A

Matrix: Solid

Analysis Batch: 13832

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13835

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		12/03/21 08:37	12/04/21 11:12	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		12/03/21 08:37	12/04/21 11:12	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		12/03/21 08:37	12/04/21 11:12	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		12/03/21 08:37	12/04/21 11:12	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		12/03/21 08:37	12/04/21 11:12	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		12/03/21 08:37	12/04/21 11:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	12/03/21 08:37	12/04/21 11:12	1
1,4-Difluorobenzene (Surr)	100		70 - 130	12/03/21 08:37	12/04/21 11:12	1

Lab Sample ID: LCS 880-13835/1-A

Matrix: Solid

Analysis Batch: 13832

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13835

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.08784		mg/Kg		88	70 - 130
Toluene	0.100	0.09459		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.1002		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.1892		mg/Kg		95	70 - 130
o-Xylene	0.100	0.09161		mg/Kg		92	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: LCSD 880-13835/2-A

Matrix: Solid

Analysis Batch: 13832

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13835

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09171		mg/Kg		92	70 - 130	4	35
Toluene	0.100	0.08957		mg/Kg		90	70 - 130	5	35
Ethylbenzene	0.100	0.09137		mg/Kg		91	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.1765		mg/Kg		88	70 - 130	7	35
o-Xylene	0.100	0.08837		mg/Kg		88	70 - 130	4	35

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

Lab Sample ID: MB 880-13836/5-A

Matrix: Solid

Analysis Batch: 13832

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13836

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		12/03/21 08:39	12/03/21 23:37	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		12/03/21 08:39	12/03/21 23:37	1

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

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

Lab Sample ID: MB 880-13836/5-A

Matrix: Solid

Analysis Batch: 13832

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13836

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		12/03/21 08:39	12/03/21 23:37	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		12/03/21 08:39	12/03/21 23:37	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		12/03/21 08:39	12/03/21 23:37	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		12/03/21 08:39	12/03/21 23:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	12/03/21 08:39	12/03/21 23:37	1
1,4-Difluorobenzene (Surr)	97		70 - 130	12/03/21 08:39	12/03/21 23:37	1

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

Lab Sample ID: MB 880-13892/1-A

Matrix: Solid

Analysis Batch: 13912

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 13892

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		12/03/21 15:30	12/04/21 11:22	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		12/03/21 15:30	12/04/21 11:22	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		12/03/21 15:30	12/04/21 11:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130	12/03/21 15:30	12/04/21 11:22	1
o-Terphenyl	101		70 - 130	12/03/21 15:30	12/04/21 11:22	1

Lab Sample ID: LCS 880-13892/2-A

Matrix: Solid

Analysis Batch: 13912

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 13892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1002		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	1000	785.2		mg/Kg		79	70 - 130

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

Lab Sample ID: LCSD 880-13892/3-A

Matrix: Solid

Analysis Batch: 13912

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13892

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	944.2		mg/Kg		94	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	719.4		mg/Kg		72	70 - 130	9	20

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

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

Lab Sample ID: LCSD 880-13892/3-A

Matrix: Solid

Analysis Batch: 13912

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 13892

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	83		70 - 130
o-Terphenyl	89		70 - 130

Lab Sample ID: 880-8942-1 MS

Matrix: Solid

Analysis Batch: 13912

Client Sample ID: SW-8A

Prep Type: Total/NA

Prep Batch: 13892

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	997	876.5		mg/Kg		88	70 - 130
Diesel Range Organics (Over C10-C28)	26.4	J	997	822.0		mg/Kg		80	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	78		70 - 130						
o-Terphenyl	80		70 - 130						

Lab Sample ID: 880-8942-1 MSD

Matrix: Solid

Analysis Batch: 13912

Client Sample ID: SW-8A

Prep Type: Total/NA

Prep Batch: 13892

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	999	906.4		mg/Kg		91	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	26.4	J	999	851.8		mg/Kg		83	70 - 130	4	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	78		70 - 130								
o-Terphenyl	81		70 - 130								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-13805/1-A

Matrix: Solid

Analysis Batch: 13897

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			12/04/21 13:02	1

Lab Sample ID: LCS 880-13805/2-A

Matrix: Solid

Analysis Batch: 13897

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	250.8		mg/Kg		100	90 - 110

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-13805/3-A					Client Sample ID: Lab Control Sample Dup						
Matrix: Solid					Prep Type: Soluble						
Analysis Batch: 13897											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			250	251.9		mg/Kg		101	90 - 110	0	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

GC VOA

Analysis Batch: 13832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Total/NA	Solid	8021B	13835
880-8942-2	SW-13A	Total/NA	Solid	8021B	13835
MB 880-13835/5-A	Method Blank	Total/NA	Solid	8021B	13835
MB 880-13836/5-A	Method Blank	Total/NA	Solid	8021B	13836
LCS 880-13835/1-A	Lab Control Sample	Total/NA	Solid	8021B	13835
LCSD 880-13835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	13835

Prep Batch: 13835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Total/NA	Solid	5035	
880-8942-2	SW-13A	Total/NA	Solid	5035	
MB 880-13835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-13835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-13835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Prep Batch: 13836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-13836/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 14097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Total/NA	Solid	Total BTEX	
880-8942-2	SW-13A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 13892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Total/NA	Solid	8015NM Prep	
880-8942-2	SW-13A	Total/NA	Solid	8015NM Prep	
MB 880-13892/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-13892/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-13892/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-8942-1 MS	SW-8A	Total/NA	Solid	8015NM Prep	
880-8942-1 MSD	SW-8A	Total/NA	Solid	8015NM Prep	

Analysis Batch: 13912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Total/NA	Solid	8015B NM	13892
880-8942-2	SW-13A	Total/NA	Solid	8015B NM	13892
MB 880-13892/1-A	Method Blank	Total/NA	Solid	8015B NM	13892
LCS 880-13892/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	13892
LCSD 880-13892/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	13892
880-8942-1 MS	SW-8A	Total/NA	Solid	8015B NM	13892
880-8942-1 MSD	SW-8A	Total/NA	Solid	8015B NM	13892

Analysis Batch: 14112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Total/NA	Solid	8015 NM	
880-8942-2	SW-13A	Total/NA	Solid	8015 NM	

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

HPLC/IC

Leach Batch: 13805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Soluble	Solid	DI Leach	
880-8942-2	SW-13A	Soluble	Solid	DI Leach	
MB 880-13805/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-13805/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-13805/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 13897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-8942-1	SW-8A	Soluble	Solid	300.0	13805
880-8942-2	SW-13A	Soluble	Solid	300.0	13805
MB 880-13805/1-A	Method Blank	Soluble	Solid	300.0	13805
LCS 880-13805/2-A	Lab Control Sample	Soluble	Solid	300.0	13805
LCSD 880-13805/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	13805

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Client Sample ID: SW-8A

Lab Sample ID: 880-8942-1

Date Collected: 12/03/21 10:30

Matrix: Solid

Date Received: 12/03/21 14:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	13835	12/03/21 15:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/04/21 19:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14097	12/06/21 15:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	13892	12/03/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13912	12/04/21 12:30	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	13805	12/03/21 15:30	CA	XEN MID
Soluble	Analysis	300.0		1			13897	12/04/21 14:33	CH	XEN MID

Client Sample ID: SW-13A

Lab Sample ID: 880-8942-2

Date Collected: 12/03/21 10:45

Matrix: Solid

Date Received: 12/03/21 14:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	13835	12/03/21 15:45	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	13832	12/04/21 19:39	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14097	12/06/21 15:15	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14112	12/06/21 15:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	13892	12/03/21 15:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			13912	12/04/21 13:32	AJ	XEN MID
Soluble	Leach	DI Leach			4.98 g	50 mL	13805	12/03/21 15:30	CA	XEN MID
Soluble	Analysis	300.0		1			13897	12/04/21 14:45	CH	XEN MID

Laboratory References:

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

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Laboratory: Eurofins Xenco, Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-8942-1
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-8942-1	SW-8A	Solid	12/03/21 10:30	12/03/21 14:06
880-8942-2	SW-13A	Solid	12/03/21 10:45	12/03/21 14:06

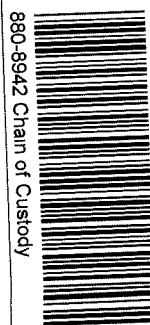
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenoco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392 7550, Carlsbad, NM (575) 988-3199

Chain of Custody



880-8942 Chain of Custody

www.xenco.com Page _____ of _____

Project Manager	Becky. Haske@GHP.com	Bill to: (if different)	Bill Direct to Planning
Company Name:	GHP	Company Name:	
Address:	2135 S. Loop 250 W	Address	
City, State ZIP	Mt. Pleasant, TX 79703	City, State ZIP:	
Phone	432-686-0086	Email:	Becky "Allrouns"@GHP.com

Work Order Comments				
Program:	UST/PST ☐	PRP ☐	Brownfields ☐	RRC ☐ Superfund ☐
State of Project:				
Reporting Level	Level II ☐	Level III ☐	PST/UST ☐	TRRP ☐ Level IV ☐
Deliverables:	EDD ☐	Adapt ☐	Other: _____	

[illegible][illegible]

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Ti	Sn	U	V	Zn
Circle Method(s) and Metal(s) to be analyzed		TCPLP 6010	8RCRA	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Mn	Mo	Ni	Se	Ag	Ti	U				Hg	1631 / 245	1 / 7470	7471					

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenro will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenro. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenro, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by (Signature)	Received by (Signature)	Date/Time	Relinquished by: (Signature)	Received by (Signature)	Date/Time
1 		12/3/21 1400	2		
3			4		
5			6		

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-8942-1

SDG Number: Eddy County NM

Login Number: 8942**List Number: 1****Creator: Rodriguez, Leticia****List Source: Eurofins Xenco, Midland**

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-9178-1

Laboratory Sample Delivery Group: Eddy County, NM
Client Project/Site: Endurance 6"

For:

GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

A handwritten signature in dark ink that reads "Chad A. Bechtold".

Authorized for release by:

12/13/2021 4:04:13 PM

Chad Bechtold, Project Manager
(813)690-3563

chad.bechtold@eurofinset.com

Designee for

Debbie Simmons, Project Manager
(832)986-6768

debbie.simmons@eurofinset.com

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-9178-1
SDG: Eddy County, NM

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
U	Analyte was not detected at or above the SDL.

HPLC/IC

Qualifier	Qualifier Description
U	Analyte was not detected at or above the SDL.

Glossary

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

Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Job ID: 880-9178-1

Laboratory: Eurofins Xenco, Midland**Narrative**

**Job Narrative
880-9178-1****Receipt**

The sample was received on 12/9/2021 11:48 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.9°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Client Sample ID: Clean Pile

Lab Sample ID: 880-9178-1

Date Collected: 12/08/21 13:00

Matrix: Solid

Date Received: 12/09/21 11:48

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000387	U	0.00201	0.000387	mg/Kg	-	12/10/21 07:49	12/10/21 11:41	1
Toluene	<0.000459	U	0.00201	0.000459	mg/Kg	-	12/10/21 07:49	12/10/21 11:41	1
Ethylbenzene	<0.000568	U	0.00201	0.000568	mg/Kg	-	12/10/21 07:49	12/10/21 11:41	1
m-Xylene & p-Xylene	<0.00102	U	0.00402	0.00102	mg/Kg	-	12/10/21 07:49	12/10/21 11:41	1
o-Xylene	<0.000346	U	0.00201	0.000346	mg/Kg	-	12/10/21 07:49	12/10/21 11:41	1
Xylenes, Total	<0.00102	U	0.00402	0.00102	mg/Kg	-	12/10/21 07:49	12/10/21 11:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	12/10/21 07:49	12/10/21 11:41	1
1,4-Difluorobenzene (Surr)	104		70 - 130	12/10/21 07:49	12/10/21 11:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00102	U	0.00402	0.00102	mg/Kg	-		12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	50.0	15.0	mg/Kg	-		12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg	-	12/09/21 13:45	12/10/21 05:24	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg	-	12/09/21 13:45	12/10/21 05:24	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg	-	12/09/21 13:45	12/10/21 05:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	12/09/21 13:45	12/10/21 05:24	1
o-Terphenyl	78		70 - 130	12/09/21 13:45	12/10/21 05:24	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	54.8		5.01	0.860	mg/Kg	-		12/10/21 15:22	1

Eurofins Xenco, Midland

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-9178-1	Clean Pile	116	104
880-9178-1 MS	Clean Pile	105	100
880-9178-1 MSD	Clean Pile	120	104
LCS 880-14443/1-A	Lab Control Sample	109	101
LCSD 880-14443/2-A	Lab Control Sample Dup	105	92
MB 880-14443/5-A	Method Blank	116	97
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-9178-1	Clean Pile	89	78
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

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

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14443/5-A

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14443

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		12/10/21 07:49	12/10/21 11:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	12/10/21 07:49	12/10/21 11:12	1
1,4-Difluorobenzene (Surr)	97		70 - 130	12/10/21 07:49	12/10/21 11:12	1

Lab Sample ID: LCS 880-14443/1-A

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09859		mg/Kg		99	70 - 130
Toluene	0.100	0.1026		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.1976		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09690		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-14443/2-A

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14443

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.100	0.09444		mg/Kg		94	70 - 130	4	35
Toluene	0.100	0.09585		mg/Kg		96	70 - 130	7	35
Ethylbenzene	0.100	0.09857		mg/Kg		99	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1930		mg/Kg		97	70 - 130	2	35
o-Xylene	0.100	0.09276		mg/Kg		93	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 880-9178-1 MS

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Clean Pile

Prep Type: Total/NA

Prep Batch: 14443

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.000387	U	0.101	0.1002		mg/Kg		100	70 - 130
Toluene	<0.000459	U	0.101	0.09856		mg/Kg		98	70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

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

Lab Sample ID: 880-9178-1 MS

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Clean Pile

Prep Type: Total/NA

Prep Batch: 14443

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	<0.000568	U	0.101	0.09649		mg/Kg		96	70 - 130
m-Xylene & p-Xylene	<0.00102	U	0.201	0.1886		mg/Kg		94	70 - 130
o-Xylene	<0.000346	U	0.101	0.09093		mg/Kg		90	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-9178-1 MSD

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Clean Pile

Prep Type: Total/NA

Prep Batch: 14443

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.000387	U	0.100	0.1085		mg/Kg		108	70 - 130	8	35
Toluene	<0.000459	U	0.100	0.1087		mg/Kg		108	70 - 130	10	35
Ethylbenzene	<0.000568	U	0.100	0.1139		mg/Kg		114	70 - 130	17	35
m-Xylene & p-Xylene	<0.00102	U	0.200	0.2221		mg/Kg		111	70 - 130	16	35
o-Xylene	<0.000346	U	0.100	0.1047		mg/Kg		105	70 - 130	14	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	120		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

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

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

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	15.24	J	50.0	15.0	mg/Kg		12/09/21 13:45	12/09/21 20:42	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		12/09/21 13:45	12/09/21 20:42	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		12/09/21 13:45	12/09/21 20:42	1

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

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

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14385

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

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

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

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

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14385

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

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

Matrix: Solid

Analysis Batch: 14325

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14385

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

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

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14495/1-A

Matrix: Solid

Analysis Batch: 14521

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<0.858	U	5.00	0.858	mg/Kg			12/10/21 13:08	1	

Lab Sample ID: LCS 880-14495/2-A

Matrix: Solid

Analysis Batch: 14521

Client Sample ID: Lab Control Sample

Prep Type: Soluble

			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride			250	273.3		mg/Kg		109	90 - 110	

Lab Sample ID: LCSD 880-14495/3-A

Matrix: Solid

Analysis Batch: 14521

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride			250	273.1		mg/Kg		109	90 - 110	0	20

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

GC VOA

Prep Batch: 14443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Total/NA	Solid	5035	
MB 880-14443/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14443/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14443/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-9178-1 MS	Clean Pile	Total/NA	Solid	5035	
880-9178-1 MSD	Clean Pile	Total/NA	Solid	5035	

Analysis Batch: 14445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Total/NA	Solid	8021B	14443
MB 880-14443/5-A	Method Blank	Total/NA	Solid	8021B	14443
LCS 880-14443/1-A	Lab Control Sample	Total/NA	Solid	8021B	14443
LCSD 880-14443/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14443
880-9178-1 MS	Clean Pile	Total/NA	Solid	8021B	14443
880-9178-1 MSD	Clean Pile	Total/NA	Solid	8021B	14443

Analysis Batch: 14648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 14325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Total/NA	Solid	8015B NM	14385
MB 880-14385/1-A	Method Blank	Total/NA	Solid	8015B NM	14385
LCS 880-14385/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14385
LCSD 880-14385/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14385

Prep Batch: 14385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Total/NA	Solid	8015NM Prep	
MB 880-14385/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14385/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14385/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 14495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Soluble	Solid	DI Leach	
MB 880-14495/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14495/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14495/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 14521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9178-1	Clean Pile	Soluble	Solid	300.0	14495

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

HPLC/IC (Continued)

Analysis Batch: 14521 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-14495/1-A	Method Blank	Soluble	Solid	300.0	14495
LCS 880-14495/2-A	Lab Control Sample	Soluble	Solid	300.0	14495
LCSD 880-14495/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14495

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Client Sample ID: Clean Pile
Date Collected: 12/08/21 13:00
Date Received: 12/09/21 11:48

Lab Sample ID: 880-9178-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	14443	12/10/21 07:49	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14445	12/10/21 11:41	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	14385	12/09/21 13:45	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14325	12/10/21 05:24	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	14495	12/10/21 12:16	CA	XEN MID
Soluble	Analysis	300.0		1			14521	12/10/21 15:22	CH	XEN MID

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

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Laboratory: Eurofins Xenco, Midland

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

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

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

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

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

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9178-1
SDG: Eddy County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-9178-1	Clean Pile	Solid	12/08/21 13:00	12/09/21 11:48

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



Environment Testing

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody



880-9178 Chain of Custody

Project Manager	Becky. Haskell@GHD.com		Bill to: (if different)	Direct to Plains
Company Name:	GHD		Company Name:	
Address:	2135 S. Loop 250 W		Address:	
City, State Zip:	Midland TX 79703		City, State Zip:	
Phone:	432-686-0086	Email:	"Becky." at ALGrovers@PACLP.com	

Work Order Comments										
Program:	UST/PST	☐	RRP	☐	Brownfields	☐	RRC	☐	Superfund	☐
State of Project:										
Reporting	Level II	☐	Level III	☐	PST/UST	☐	TRRP	☐	Level IV	☐
Deliverables	EDD	☐	Adapt	☐	Other:					

[illegible][illegible]

Total 2007/ / 6010	2008/ / 6020:	
Circle Method(s) and Metal(s) to be analyzed	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
	TCLP / SPLP 6010	8RCRA 5b As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U
		Hg 1631 / 245 1 / 7470 / 7471

Eurofins Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Pittman Cox	12/8/10 1430		Pittman Cox	12/9/11 1148

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-9178-1

SDG Number: Eddy County, NM

Login Number: 9178

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland

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



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 880-9244-1

Laboratory Sample Delivery Group: Eddy County, NM
Client Project/Site: Endurance 6"

For:

GHD Services Inc.
2135 South Loop 250 West
Midland, Texas 79703

Attn: Becky Haskell

A handwritten signature in dark ink that reads "Chad A. Bechtold".

Authorized for release by:

12/13/2021 4:11:53 PM

Chad Bechtold, Project Manager
(813)690-3563

chad.bechtold@eurofinset.com

Designee for

Debbie Simmons, Project Manager
(832)986-6768

debbie.simmons@eurofinset.com

LINKS

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

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

Client: GHD Services Inc.
Project/Site: Endurance 6"

Laboratory Job ID: 880-9244-1
SDG: Eddy County, NM

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Definitions/Glossary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Job ID: 880-9244-1

Laboratory: Eurofins Xenco, Midland

Narrative

Job Narrative 880-9244-1

Receipt

The samples were received on 12/10/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 7.2°C. The samples are considered acceptable since they were collected and submitted to the laboratory on ice the same day of collection, and there is evidence that the cooling process has begun.

GC VOA

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

GC Semi VOA

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-14532 and analytical batch 880-14548 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. The associated samples are: Clean Plie 2 (880-9244-1), Clean Plie 3 (880-9244-2), (880-9244-A-1-C MS) and (880-9244-A-1-D MSD).

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

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Client Sample ID: Clean Plie 2

Lab Sample ID: 880-9244-1

Date Collected: 12/10/21 11:50

Matrix: Solid

Date Received: 12/10/21 16:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000383	U	0.00199	0.000383	mg/Kg		12/10/21 17:00	12/10/21 19:57	1
Toluene	<0.000454	U	0.00199	0.000454	mg/Kg		12/10/21 17:00	12/10/21 19:57	1
Ethylbenzene	<0.000563	U	0.00199	0.000563	mg/Kg		12/10/21 17:00	12/10/21 19:57	1
m-Xylene & p-Xylene	<0.00101	U	0.00398	0.00101	mg/Kg		12/10/21 17:00	12/10/21 19:57	1
o-Xylene	<0.000343	U	0.00199	0.000343	mg/Kg		12/10/21 17:00	12/10/21 19:57	1
Xylenes, Total	<0.00101	U	0.00398	0.00101	mg/Kg		12/10/21 17:00	12/10/21 19:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	12/10/21 17:00	12/10/21 19:57	1
1,4-Difluorobenzene (Surr)	93		70 - 130	12/10/21 17:00	12/10/21 19:57	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00101	U	0.00398	0.00101	mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	87.8		50.0	15.0	mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		12/10/21 17:00	12/11/21 05:36	1
Diesel Range Organics (Over C10-C28)	87.8		50.0	15.0	mg/Kg		12/10/21 17:00	12/11/21 05:36	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		12/10/21 17:00	12/11/21 05:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	95		70 - 130	12/10/21 17:00	12/11/21 05:36	1
o-Terphenyl	99		70 - 130	12/10/21 17:00	12/11/21 05:36	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	61.8	F1	4.99	0.857	mg/Kg			12/11/21 13:00	1

Client Sample ID: Clean Plie 3

Lab Sample ID: 880-9244-2

Date Collected: 12/10/21 12:00

Matrix: Solid

Date Received: 12/10/21 16:00

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000381	U	0.00198	0.000381	mg/Kg		12/10/21 17:00	12/10/21 20:18	1
Toluene	<0.000451	U	0.00198	0.000451	mg/Kg		12/10/21 17:00	12/10/21 20:18	1
Ethylbenzene	<0.000559	U	0.00198	0.000559	mg/Kg		12/10/21 17:00	12/10/21 20:18	1
m-Xylene & p-Xylene	<0.00100	U	0.00396	0.00100	mg/Kg		12/10/21 17:00	12/10/21 20:18	1
o-Xylene	<0.000341	U	0.00198	0.000341	mg/Kg		12/10/21 17:00	12/10/21 20:18	1
Xylenes, Total	<0.00100	U	0.00396	0.00100	mg/Kg		12/10/21 17:00	12/10/21 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	S1+	70 - 130	12/10/21 17:00	12/10/21 20:18	1
1,4-Difluorobenzene (Surr)	123		70 - 130	12/10/21 17:00	12/10/21 20:18	1

Eurofins Xenco, Midland

Client Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Client Sample ID: Clean Plie 3

Lab Sample ID: 880-9244-2

Date Collected: 12/10/21 12:00

Matrix: Solid

Date Received: 12/10/21 16:00

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00100	U	0.00396	0.00100	mg/Kg			12/13/21 11:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<15.0	U	49.9	15.0	mg/Kg			12/13/21 12:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	49.9	15.0	mg/Kg		12/10/21 17:00	12/11/21 05:57	1
Diesel Range Organics (Over C10-C28)	<15.0	U	49.9	15.0	mg/Kg		12/10/21 17:00	12/11/21 05:57	1
Oil Range Organics (Over C28-C36)	<15.0	U	49.9	15.0	mg/Kg		12/10/21 17:00	12/11/21 05:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130				12/10/21 17:00	12/11/21 05:57	1
o-Terphenyl	95		70 - 130				12/10/21 17:00	12/11/21 05:57	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.850	U	4.95	0.850	mg/Kg			12/11/21 14:20	1

Eurofins Xenco, Midland

Surrogate Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-9244-1	Clean Plie 2	110	93
880-9244-2	Clean Plie 3	150 S1+	123
LCS 880-14443/1-A	Lab Control Sample	109	101
LCSD 880-14443/2-A	Lab Control Sample Dup	105	92
MB 880-14443/5-A	Method Blank	116	97
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-9244-1	Clean Plie 2	95	99
880-9244-2	Clean Plie 3	91	95
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-14526/2-A	Lab Control Sample	98	109
LCSD 880-14526/3-A	Lab Control Sample Dup	115	112
MB 880-14526/1-A	Method Blank	104	117
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-14443/5-A

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14443

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000385	U	0.00200	0.000385	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
Toluene	<0.000456	U	0.00200	0.000456	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
Ethylbenzene	<0.000565	U	0.00200	0.000565	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
m-Xylene & p-Xylene	<0.00101	U	0.00400	0.00101	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
o-Xylene	<0.000344	U	0.00200	0.000344	mg/Kg		12/10/21 07:49	12/10/21 11:12	1
Xylenes, Total	<0.00101	U	0.00400	0.00101	mg/Kg		12/10/21 07:49	12/10/21 11:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	12/10/21 07:49	12/10/21 11:12	1
1,4-Difluorobenzene (Surr)	97		70 - 130	12/10/21 07:49	12/10/21 11:12	1

Lab Sample ID: LCS 880-14443/1-A

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14443

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.100	0.09859		mg/Kg		99	70 - 130
Toluene	0.100	0.1026		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.1004		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	0.200	0.1976		mg/Kg		99	70 - 130
o-Xylene	0.100	0.09690		mg/Kg		97	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: LCSD 880-14443/2-A

Matrix: Solid

Analysis Batch: 14445

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14443

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.100	0.09444		mg/Kg		94	70 - 130	4	35
Toluene	0.100	0.09585		mg/Kg		96	70 - 130	7	35
Ethylbenzene	0.100	0.09857		mg/Kg		99	70 - 130	2	35
m-Xylene & p-Xylene	0.200	0.1930		mg/Kg		97	70 - 130	2	35
o-Xylene	0.100	0.09276		mg/Kg		93	70 - 130	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

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

Lab Sample ID: MB 880-14526/1-A

Matrix: Solid

Analysis Batch: 14439

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 14526

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<15.0	U	50.0	15.0	mg/Kg		12/10/21 15:20	12/10/21 21:07	1
Diesel Range Organics (Over C10-C28)	<15.0	U	50.0	15.0	mg/Kg		12/10/21 15:20	12/10/21 21:07	1
Oil Range Organics (Over C28-C36)	<15.0	U	50.0	15.0	mg/Kg		12/10/21 15:20	12/10/21 21:07	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130				12/10/21 15:20	12/10/21 21:07	1
o-Terphenyl	117		70 - 130				12/10/21 15:20	12/10/21 21:07	1

Lab Sample ID: LCS 880-14526/2-A

Matrix: Solid

Analysis Batch: 14439

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 14526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO)-C6-C10	1000	839.8		mg/Kg		84	70 - 130
Diesel Range Organics (Over C10-C28)	1000	971.0		mg/Kg		97	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	98		70 - 130				
o-Terphenyl	109		70 - 130				

Lab Sample ID: LCSD 880-14526/3-A

Matrix: Solid

Analysis Batch: 14439

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 14526

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	888.4		mg/Kg		89	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	949.8		mg/Kg		95	70 - 130	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	115		70 - 130						
o-Terphenyl	112		70 - 130						

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-14532/1-A

Matrix: Solid

Analysis Batch: 14548

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.858	U	5.00	0.858	mg/Kg			12/11/21 12:40	1

Eurofins Xenco, Midland

QC Sample Results

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-14532/2-A

Matrix: Solid

Analysis Batch: 14548

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	250	273.9		mg/Kg		110	90 - 110

Lab Sample ID: LCSD 880-14532/3-A

Matrix: Solid

Analysis Batch: 14548

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	250	273.3		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 880-9244-1 MS

Matrix: Solid

Analysis Batch: 14548

Client Sample ID: Clean Plie 2

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	61.8	F1	250	364.8	F1	mg/Kg		121	90 - 110

Lab Sample ID: 880-9244-1 MSD

Matrix: Solid

Analysis Batch: 14548

Client Sample ID: Clean Plie 2

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	61.8	F1	250	361.5	F1	mg/Kg		120	90 - 110	1	20

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

GC VOA

Prep Batch: 14443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Total/NA	Solid	5035	
880-9244-2	Clean Plie 3	Total/NA	Solid	5035	
MB 880-14443/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-14443/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-14443/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 14445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Total/NA	Solid	8021B	14443
880-9244-2	Clean Plie 3	Total/NA	Solid	8021B	14443
MB 880-14443/5-A	Method Blank	Total/NA	Solid	8021B	14443
LCS 880-14443/1-A	Lab Control Sample	Total/NA	Solid	8021B	14443
LCSD 880-14443/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	14443

Analysis Batch: 14648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Total/NA	Solid	Total BTEX	
880-9244-2	Clean Plie 3	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 14439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Total/NA	Solid	8015B NM	14526
880-9244-2	Clean Plie 3	Total/NA	Solid	8015B NM	14526
MB 880-14526/1-A	Method Blank	Total/NA	Solid	8015B NM	14526
LCS 880-14526/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	14526
LCSD 880-14526/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	14526

Prep Batch: 14526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Total/NA	Solid	8015NM Prep	
880-9244-2	Clean Plie 3	Total/NA	Solid	8015NM Prep	
MB 880-14526/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-14526/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-14526/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Analysis Batch: 14652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Total/NA	Solid	8015 NM	
880-9244-2	Clean Plie 3	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 14532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Soluble	Solid	DI Leach	
880-9244-2	Clean Plie 3	Soluble	Solid	DI Leach	
MB 880-14532/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-14532/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-14532/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-9244-1 MS	Clean Plie 2	Soluble	Solid	DI Leach	

Eurofins Xenco, Midland

QC Association Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

HPLC/IC (Continued)

Leach Batch: 14532 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1 MSD	Clean Plie 2	Soluble	Solid	DI Leach	

Analysis Batch: 14548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-9244-1	Clean Plie 2	Soluble	Solid	300.0	14532
880-9244-2	Clean Plie 3	Soluble	Solid	300.0	14532
MB 880-14532/1-A	Method Blank	Soluble	Solid	300.0	14532
LCS 880-14532/2-A	Lab Control Sample	Soluble	Solid	300.0	14532
LCSD 880-14532/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	14532
880-9244-1 MS	Clean Plie 2	Soluble	Solid	300.0	14532
880-9244-1 MSD	Clean Plie 2	Soluble	Solid	300.0	14532

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Client Sample ID: Clean Plie 2

Lab Sample ID: 880-9244-1

Date Collected: 12/10/21 11:50

Matrix: Solid

Date Received: 12/10/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	14443	12/10/21 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14445	12/10/21 19:57	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	14526	12/10/21 17:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 05:36	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	14532	12/10/21 16:22	CA	XEN MID
Soluble	Analysis	300.0		1			14548	12/11/21 13:00	SC	XEN MID

Client Sample ID: Clean Plie 3

Lab Sample ID: 880-9244-2

Date Collected: 12/10/21 12:00

Matrix: Solid

Date Received: 12/10/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	14443	12/10/21 17:00	KL	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	14445	12/10/21 20:18	KL	XEN MID
Total/NA	Analysis	Total BTEX		1			14648	12/13/21 11:41	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			14652	12/13/21 12:23	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	14526	12/10/21 17:00	DM	XEN MID
Total/NA	Analysis	8015B NM		1			14439	12/11/21 05:57	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	14532	12/10/21 16:22	CA	XEN MID
Soluble	Analysis	300.0		1			14548	12/11/21 14:20	SC	XEN MID

Laboratory References:

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

Eurofins Xenco, Midland

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Laboratory: Eurofins Xenco, Midland

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

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

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

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

Eurofins Xenco, Midland

Method Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Xenco, Midland

Sample Summary

Client: GHD Services Inc.
Project/Site: Endurance 6"

Job ID: 880-9244-1
SDG: Eddy County, NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
880-9244-1	Clean Plie 2	Solid	12/10/21 11:50	12/10/21 16:00
880-9244-2	Clean Plie 3	Solid	12/10/21 12:00	12/10/21 16:00

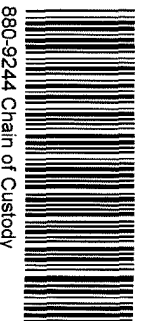
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing
Xenon

Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199



880-9244 Chain of Custody

www.xenon.com Page 1 of 1

Project Manager:	Becky Hasckell	Company Name:	Direct To Plains
Company Name:	GTH	Address:	2135 S. Loop 250 U.
Address:	Midland, TX 79703	City/State/Zip:	
City/State/Zip:	Midland, TX 79703	City/State/Zip:	
Phone:	432-686-0086	Email:	Becky@ALGROVES@PALP.COM

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

Project Name:	Endurance 6'	Turn Around	Pre. Code	ANALYSIS REQUEST																Preservative Codes							
Project Number:	12566934	☐ Routine ☒ Rush																		None NO	DI Water H ₂ O						
Project Location:	Eddy County, NM	Due Date:	One day																	Cool Cool	MeOH Me						
Sampler's Name:	Heath Boyd	TAT starts the day received by the lab, if received by 4:30pm																		HCL HC	HNO ₃ HN						
PO #																				H ₂ SO ₄ H ₂	NaOH Na						
SAMPLE RECEIPT				Temp Blank:	Yes (No)	Wet Ice:	Yes (No)																	H ₃ PO ₄ HP			
Samples Received Inact:				Yes (No)	Thermometer ID:																			NaHSO ₄ NABIS			
Cooler Custody Seals:				Yes (No)	Correction Factor:																			Na ₂ S ₂ O ₃ NASO ₃			
Sample Custody Seals:				Yes (No)	Temperature Reading																			Zn Acetate+NaOH Zn			
Total Containers:				Corrected Temperature:																				NaOH+Ascorbic Acid SAPC			
Sample Identification				Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters																Sample Comments	
Clean Pile 2				5	12/10/21	1150		Grab	1	X	X	X	BTEx 80210														
Clean Pile 3				5	12/10/21	1700		Grab	1	X	X	X	TAH 8015M														
													Chloride 300														

Total 2007 / 6010		2008 / 6020:		8RCRA 13PPM Texas 11		Al Sb As Ba Be B Cd Ca Cr Co Cu Pb Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn					
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010		8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hg 1631 / 2451 / 7470 / 7471					
Relinquished by (Signature)		Received by (Signature)		Date/Time		Relinquished by (Signature)		Received by (Signature)		Date/Time	
1 <i>JS</i>		<i>Joe Mueh</i>		12/10/21 1500		2 <i>Joe Mueh</i>		<i>Joe Mueh</i>		12-10-21 1600	
3						4					
5						6					

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenon, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenon will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenon. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenon, but not analyzed. These terms will be enforced unless previously negotiated.

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 880-9244-1

SDG Number: Eddy County, NM

Login Number: 9244

List Number: 1

Creator: Rodriguez, Leticia

List Source: Eurofins Xenco, Midland

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

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 69789

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	OGRID: 34053
	Action Number: 69789
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Variance as outlined in report/work plan for liner is approved.	1/3/2022