GHD

June 4, 2018

Reference No. 11135250-6

Mr. Dean Ericson ETC Field Services LLC 600 N. Marienfeld Suite 700 Midland, Texas 79701

Dear Mr. Ericson:

Re: Updated Remediation Summary Report TD-5 10" (2RP-4273) ETC Field Services LLC 2RP- 4273 Site Location: Unit B, Sec. 23, T 26-S, R 30-E (Lat 32.032164N°, Long -103.849038W°) Eddy County, New Mexico

GHD Services, Inc. (GHD) is pleased to present this report for the above referenced site. The TD-5 10" (hereafter referred to as the "Site") is located within Unit B, Section 23, Township 26 South, Range 30 East, in Eddy County, New Mexico (see Figure 1).

A release of approximately 11.68 barrels (bbls) of oil and water was reported to the State of New Mexico Oil Conservation Division (NMOCD) On June 23, 2017 via Form C-141. Corrosion caused an approximate 0.25-inch hole to develop on a section of the pipeline. None of the fluids were recovered. Contaminated soils were excavated and stockpiled on site (see Figure 2). NMOCD release number 2RP-4273 was assigned.

1. Introduction

The release at this site occurred on land owned by the Bureau of Land Management. Following the release, GHD's Site assessment activities began with initial background soil sampling and analysis and limited excavation on July 24, 2017. Initial assessment activities were performed by excavating test pits and field screening the soil utilizing a photoionization detector and a Hach chloride field kit. Six test pits were excavated and soil samples were collected for laboratory analysis. Excavation activities were performed by Diamond Back of Hobbs, New Mexico. Observation of the excavation and soil sampling was performed by GHD. Soil samples were analyzed by Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, New Mexico.

Based on information available from the United States Geologic Survey National Water Information System, the depth to groundwater at the Site is approximately 117 ft below ground surface (bgs). This is based on a water well that is located approximately 1 mile southwest of the Site (see Appendix A, Water Well Reports for depth to water). There are no well head protection areas or surface water bodies within 1000 feet of the Site. Therefore, the preliminary total ranking score is 0 (see table below).





Based on this score, the applicable NMOCD Site Specific Recommended Remediation Action Limits (RRALs) are 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total benzene, toluene, ethylbenzene, and xylenes (BTEX), 5,000 mg/kg for total petroleum hydrocarbons (TPH), and 250 mg/kg for chlorides.

New Mexico Oil Conservation Division Site Assessment	
Ranking Criteria	Score
Depth to Ground Water (>100 ft bgs)	0
Wellhead Protection Area (> 1000 ft from water source, > 200 ft from domestic source)	0
Distance to Surface Body Water (>1000 ft)	0
Ranking Criteria Total Score	0*
*Because the ranking criteria total score is 20. NMOCD established PRALs are 10 p	ng/kg for bonzono

*Because the ranking criteria total score is 20, NMOCD established RRALs are 10 mg/kg for benzene, 50 mg/kg for total BTEX, 5,000 mg/kg for total TPH and 250 ppm for chlorides¹. 1. NMOCD Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993

The impacted areas had initially been excavated to a depth of approximately 6.5 ft bgs and soil samples were collected by ETC Field Services LLC personnel for laboratory analysis. Two samples (West Hole Vertical) and (East Hole Vertical) were collected from the bottom of the western and eastern excavations at a depth of approximately 7 ft bgs and on June 22, 2017 (see Figure 2). The samples were submitted to Cardinal Laboratories in Hobbs, New Mexico and analyzed for BTEX by EPA Method 8021B, TPH by EPA Method 8015M, and chloride by SM4500CI-B. The analytical results for these samples were:

West Hole Vertical

- Benzene: 0.211 mg/kg
- Total BTEX: 11.47 mg/kg
- TPH: 316.1 mg/kg
- Chloride: 5,440 mg/kg

East Hole Vertical

- Benzene: <0.050 mg/kg
- Total BTEX: 5.56 mg/kg
- TPH: 267.5 mg/kg
- Chloride: 2,760 mg/kg

Excavation activities to assess the horizontal and vertical extent of impacted soil from the release occurred on July 24, 2017 by GHD. Field screening of soil for petroleum hydrocarbons and chloride was performed to assess the horizontal and vertical extent of contaminated soil. Test pits were excavated in the bottom of both excavations.



Soil samples were collected and submitted to HEAL for laboratory analysis. Samples were collected from the base of the excavations and four test pits (see Figure 2) at depths ranging from four to twelve ft bgs. The soil samples were analyzed for BTEX by EPA Method 8260B, TPH by EPA Method 8015 full range and chloride by EPA Method 300.0(Table 1). Laboratory analytical data can be found in Appendix B.

One sample (S-1113520-072417-MG-TP-5-4) contained a chloride concentration of 300 that exceeds the RRAL.

An Initial Assessment Report and Assessment Work Plan prepared by GHD and dated October 19, 2017 was submitted to the NMOCD and BLM. Based on the work plan, additional excavation activities were performed that also included the drilling and sampling of a soil boring.

The excavation activities were performed from October 30, 2017 to January 3, 2018. The area as outlined with the dotted excavation line was excavated to a depth of four ft. bgs. Samples TP-7 through TP-20 were collected at a depth ranging from two to four ft. bgs. Field screening of the soil was performed using the PetroFLAG Hydrocarbon Analysis System and a Hach chloride field kit. Select soil samples were submitted to HEAL for BTEX, total TPH, and chloride analysis. Samples TP-19 and TP-20 were submitted for chloride analysis. The excavation limits are presented on Figure 2.

BTEX constituents were not detected in any of the samples above the LRL and TPH concentrations ranged from below the LRL to 1,220 mg/kg. Chloride concentrations ranged from below the LRL to 3,000 mg/kg. Chloride concentrations exceeded the RRAL in samples TP-7 at 2 ft. bgs, TP-12 at 4 ft. bgs, and TP-15 at 20 ft. bgs.

Based on the depth at which chloride impacted soil exceeding the RRAL was found, GHD drilled and sampled a soil boring to 40 ft. bgs. Soil samples were collected and submitted to HEAL for BTEX and chloride analysis. Samples were collected from 25, 30, 35, and 40 ft. bgs. None of the BTEX constituents were found at concentrations above the LRL and Chloride concentrations ranged from below the LRL to 42 mg/kg.

2. Summary and Recommendations

Soil samples were collected from test pits, during excavation activities, and drilling activities and were submitted for laboratory analysis. Based on the analytical data, the impacted soil has been removed to a depth of four feet bgs. A 20-foot separation between chloride concentrations exceeding the RRAL and soils below the RRAL was established. Based on the laboratory results, GHD recommends the following:

- Place a liner in the bottom of the excavation.
- Backfill the excavations with clean fill material.
- Wheel compact to grade.

Following completion of the backfilling, revegetation of the site will be performed. Disturbed areas associated with the remediation efforts will be re-seeded. If after one growing season the vegetation has



not taken hold, seeding may need to be repeated until revegetation is successful, as determined by the State Land Office. The proposed seed mix will consist of Bureau of Land Management mix #2 with no love grass.

Following completion of the above activities, a request for no further action will be made for the Site. Should you have any questions, or require additional information regarding this submittal, please feel free to contact me at (505) 884-0672.

Sincerely,

GHD

AIC Brand

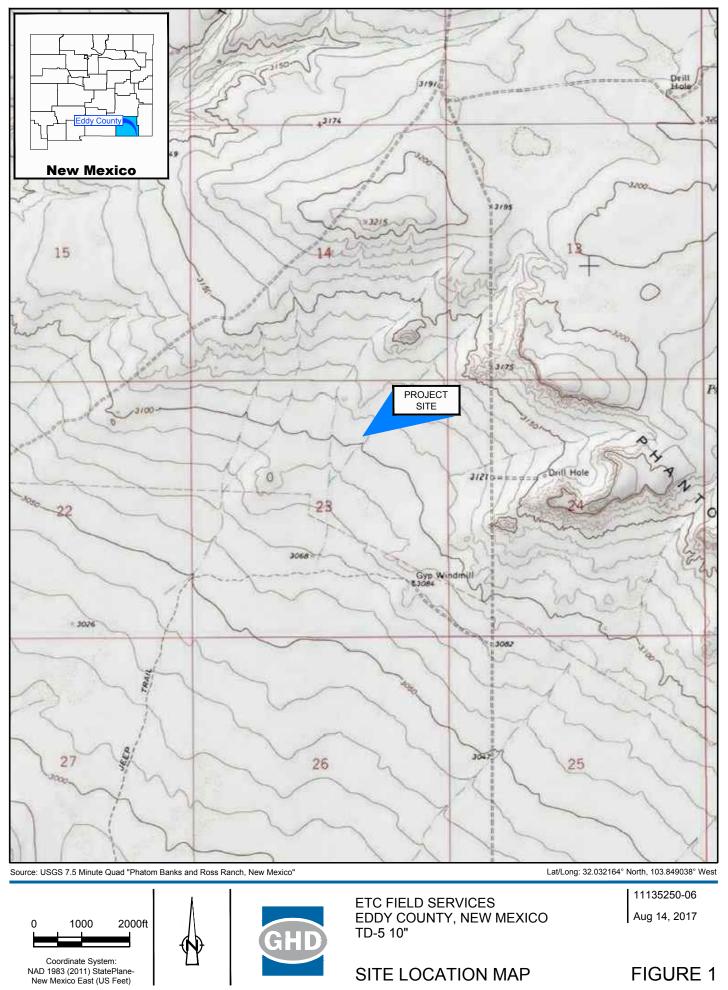
Alan Brandon Senior Project Manager

AB/ji/4

Encl.

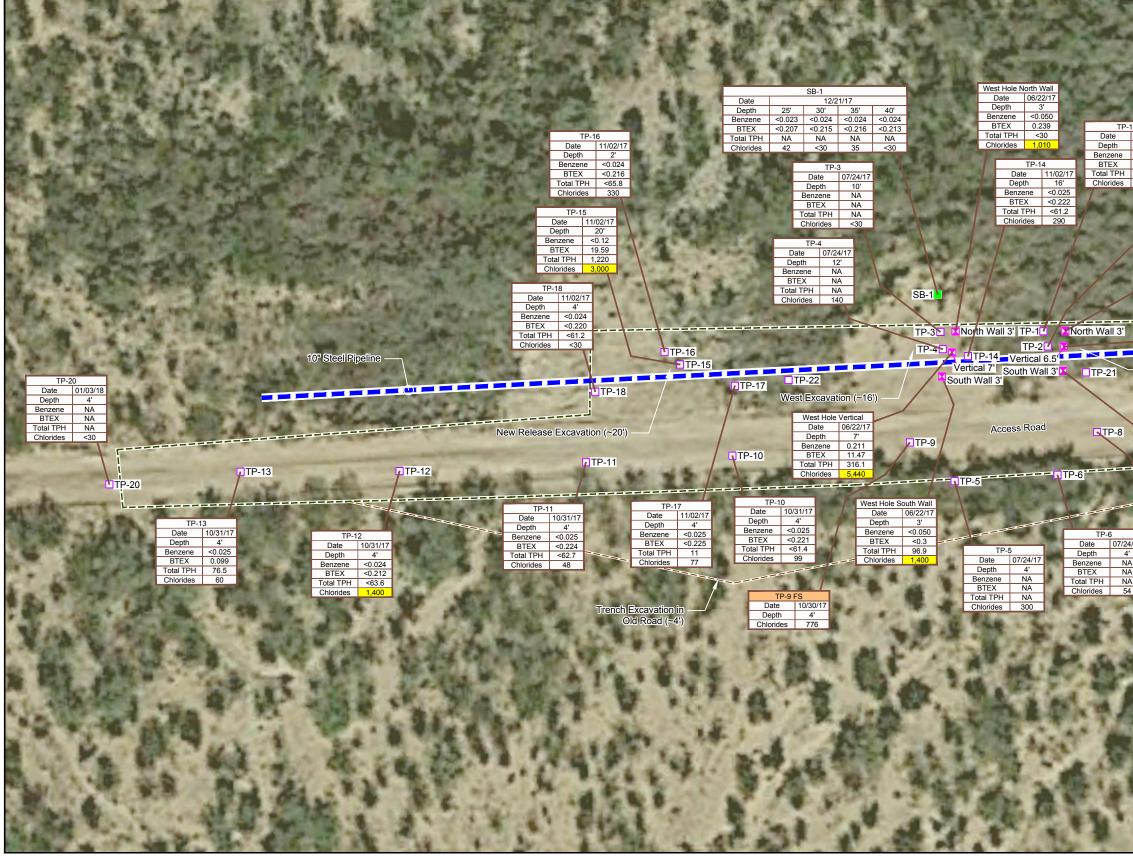
Bernard Bockisch New Mexico Operations Manager

Figures

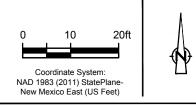


CAD File: I:\CAD\Files\Eight Digit Job Numbers\1113----\11135250-ETC Field Services\11135250-06(000)GN-DL001.dwg

FIGURE 1



Source: Image © 2017 Google - Imagery Date: November 20, 2015



GHD

ETC FIELD SERVICES EDDY COUNTY, NEW MEXICO TD-5 10"

SOIL SAMPLE LOCATION

1 07/24/17 10' <0.024 <0.24 20217 20217 20217 20217 20217 20217 20217 20217 20217 20217 20217 20217 20214 20217 20216 75 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 2021 20	East Hole Vertical Dath 06/22/17 Depth 7 Benzene <0.050 BTEX 5.56 Total TPH 267.5 Chlorides 2,760
East Excavation (~6') East Hole South Wall Date 06/22/17 Depth 3' Benzene 1.83 BTEX 180.22 Total TPH 2.016.7 Chlorides 10,800 TP-8 FS Date 10/30/17 Depth 4' Depth 4' Total TPH 2/16.7 Chlorides 10,800 TP-8 FS Date 10/30/17 Depth 4' Total TPH 2/16.7 Total TPH 2.016.7 Total TPH 2.016.7 To	TP-7 TP-7 TP-7 TP-7 TP-7 TP-10 TP-10
Chlorides 612	LEGEND Test Pit Location Soil Boring Location ETC Sample Location ETC Sample Location EXcavation Limits TD-5 10" Pipeline BTEX Benzene, Toluene, Ethylbenzene and Xylenes Concentration (mg/kg) TH Total Petroleum Hydrocarbons Concentration (mg/kg) NA Not Analyzed Indicates Field Screen (FS)

11135250-06 May 25, 2018



Tables

GHD | Updated Remediation Summary Report |11135250 (4)

Table 1

Soil Analytical Results Summary ETC Field Services LLC - TD-5 10" Section 23, Township 26 South, Range 30 East Eddy County, New Mexico Soil Analytical Results Summary

Sample ID	Date	Sample Depth	Chlorides	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	ТРН	ТРН	ТРН	Total TPH
		(ft.)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (C6-C-10)	DRO (C10-C28)	EXT DRO (C28- C36)	GRO/DRO
									(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMOCD Remediatio	n Action Levels		600	10	NE	NE	NE	50	NE	NE	NE	5,000
						EXCAVATION AND	SOIL BORING	SAMPLES				
Spill Area #1 *	6/22/2017	0.5	6,000	<0.050	<0.050	<0.050	<0.15	<0.3	<10	11	22.6	33.2
Spill Area #2*	6/22/2017	0.5	9,860	3.16	53.9	8.31	152	217.37	1,990.0	2,590.0	35.3	4,615.3
Spill Area #3*	6/22/2017	0.5	4,400	<0.050	< 0.050	< 0.050	<0.15	<0.3	<10	13.9	<10	13.9
North Horizontal *	6/22/2017	0.5	32.0	<0.050	0.075	< 0.050	0.365	0.44	<10	<10	14.6	14.6
South Horizontal *	6/22/2017	0.5	<16	<0.050	0.48	0.064	1.06	1.6	<10	<10	<10	<30
East Horizontal*	6/22/2017	0.5	3,120	<0.050	< 0.050	<0.050	<0.15	<0.3	<10	38.2	<10	38.2
West Horizontal*	6/22/2017	0.5	96.0	<0.050	0.101	<0.050	<0.15	0.101	<10	<10	<10	<30
West Hole Vertical*	6/22/2017	7	5,440	0.211	2.56	0.46	8.24	11.47	90.1	226.0	<10	316.1
West Hole North Wall*	6/22/2017	3	1,010	<0.050	0.073	<0.050	0.166	0.239	<10	<10	<10	<30
West Hole South Wall*	6/22/2017	3	1,400	<0.050	<0.050	<0.050	<0.15	<0.3	15.3	81.6	<10	96.9
East Hole Vertical*	6/22/2017	7	2,760	<0.050	0.553	0.248	4.76	5.56	11.5	125.0	131.0	267.5
East Hole North Wall*	6/22/2017	3	2,560	<0.050	0.872	0.267	5.16	6.299	24.3	134.0	19.6	177.9
East Hole South Wall*	6/22/2017	3	10,800	1.83	37.5	6.89	134	180.22	608.0	1,340.0	68.7	2,016.7
S11135250-072417MG-TP-1-10	7/24/2017	10	<30	<0.024	<0.048	<0.048	<0.097	<0.217	<4.8	<9.4	<47	<61.2
S11135250-072417MG-TP-2-12	7/24/2017	12	75	<0.024	<0.048	<0.048	<0.096	<0.216	<4.8	<9.8	<49	<63.6
S11135250-072417MG-TP-3-10	7/24/2017	10	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA
S11135250-072417MG-TP-4-12	7/24/2017	12	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
S11135250-072417MG-TP-5-4	7/24/2017	4	300	NA	NA	NA	NA	NA	NA	NA	NA	NA
S11135250-072417MG-TP-6-4	7/24/2017	4	54	NA	NA	NA	NA	NA	NA	NA	NA	NA
S11135250-06-103017-MG-TP-7-2	10/30/2017	2	1,800	<0.024	<0.049	< 0.049	<0.098	<0.220	<4.9	<9.7	<49	<63.6
S11135250-06-103117-MG-TP-10-4	10/31/2017	4	99	<0.025	<0.049	<0.049	<0.098	<0.221	<4.9	<9.5	<47	<61.4
S11135250-06-103117-MG-TP-11-4	10/31/2017	4	48	<0.025	< 0.050	< 0.050	<0.099	<0.224	<5.0	<9.7	<48	<62.7
S11135250-06-103117-MG-TP-12-4	10/31/2017	4	1,400	<0.024	<0.047	<0.047	<0.094	<0.212	<4.7	<9.9	<49	<63.6
S11135250-06-103117-MG-TP-13-4	10/31/2017	4	60	< 0.025	< 0.049	< 0.049	0.099	0.099	6.5	70.0	<48	76.5
S11135250-06-110217-MG-TP-14-16	11/2/2017	16	290	<0.025	<0.049	<0.049	<0.099	<0.222	<4.9	<9.3	<47	<61.2
S11135250-06-110217-MG-TP-15-20	11/2/2017	20	3,000	<0.12	1.7	0.89	17	19.59	230.0	990.0	<470	1,220.0
S11135250-06-110217-MG-TP-16-2	11/2/2017	2	330	<0.024	<0.048	< 0.048	<0.096	<0.216	<4.8	<10	<51	<65.8
S11135250-06-110217-MG-TP-17-4	11/2/2017	4	77	<0.025	<0.050	<0.050	<0.10	<0.225	<5.0	11.0	<48	11.0
S11135250-06-110217-MG-TP-18-4	11/2/2017	4	<30	<0.024	<0.049	< 0.049	<0.098	<0.220	<4.9	<9.3	<47	<61.2
S11135250-06-122117-MG-SB-1-25	12/21/2017	25	42	<0.023	<0.046	< 0.046	<0.092	<0.207	NA	NA	NA	NA
S11135250-06-122117-MG-SB-1-30	12/21/2017	30	<30	< 0.024	<0.048	<0.048	<0.095	<0.215	NA	NA	NA	NA
S11135250-06-122117-MG-SB-1-35	12/21/2017	35	35	< 0.024	<0.048	<0.048	< 0.096	<0.216	NA	NA	NA	NA
S11135250-06-122117-MG-SB-1-40	12/21/2017	40	<30	<0.024	<0.040	<0.047	<0.095	<0.213	NA	NA	NA	NA
S11135250-06-010318-MG-TP-19-4	1/3/2018	4	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA
S11135250-06-010318-MG-TP-20-4	1/3/2018	4	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note: Concentrations in yellow exceed the NMOCD Remediation Action Level

* Samples taken by ETC Field Services and Analyzed by Cardinal Laboratories of Hobbs, NM

NE = Not Established

mg/Kg = milligrams per Kilogram -- = Not Applicable

NA = Not Analyzed

Appendices

Appendix A Water Well Report



TD-5 10" ~ 1 mile SW

USGS Home Contact USGS Search USGS

National Water Information System: Web Interface

USGS Water Resources	Data Category:		Geographic Area:	[
<u>obub mater Resources</u>	Groundwater	\checkmark	United States	\sim	GO

Click to hideNews Bulletins

Please see news on new formats

• Full News 🖾

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site no list =

320125103514701

GO

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

USGS 320125103514701 26S.30E.22.44124

Available data for this site Groundwater: Field measurements

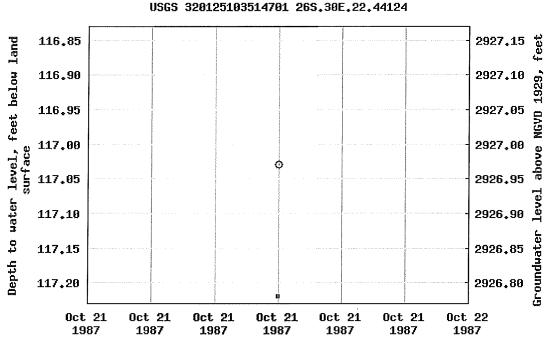
Eddy County, New Mexico Hydrologic Unit Code 13070001

Latitude 32°01'25", Longitude 103°51'47" NAD27

Land-surface elevation 3,044 feet above NGVD29

Output formats

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



Period of approved data

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

Questions about sites/data?

<u>Feedback on this web site</u> <u>Automated retrievals</u> <u>Help</u> <u>Data Tips</u> <u>Explanation of terms</u> <u>Subscribe for system changes</u>

<u>News</u>

Accessibility Plug-Ins FOIA Privacy Policies and Notices
U.S. Department of the Interior | U.S. Geological Survey
Title: Groundwater for USA: Water Levels

USA.gov

Page Contact Information: <u>USGS Water Data Support Team</u> Page Last Modified: 2017-06-30 08:49:40 EDT 0.57 0.48 nadww01

URL: https://nwis.waterdata.usgs.gov/nwis/gwlevels?

	V				<i>xico (</i> umn							-			er	
(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right	(R=POE been rep O=orpha C=the fil	blaced, aned,			ers are 1=1 ers are sm			4=SE)								
file.)	closed)			largest) (NAD83 UTM in						neters	;)		(In	i feet)		
POD Number	Code	POD Sub- basin	County	Q Q C 6416 4	Sec Tws	Rng	х		Y	Dist	anceDe	epthV	VellDe	pthW	W ater Co	'ater Iumn
<u>C 02165</u>		С	ED		24 26S	30E	610036	354412	1* 🌍		1410	•	440		180	260
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										Mir	nimum D)epth:			180 fee	t
										Max	imum D	epth:			180 fee	t
Record Count:1					· · · · · · · · · · · · · · · · · · ·											
Basin/County Sea	rch:															
County: Eddy																
UTMNAD83 Radiu	s Search	(in mete	ers):													
Easting (X): 608	3694.11		North	ning (Y):	3544555.6	67		Radius:	2000							
*UTM location was derive	ed from PLS	SS - see	Help													
The data is furnished by the concerning the accuracy, c	e NMOSE/I	SC and i s. reliabil	s accepted	by the re	cipient with t	he expre	essed unde	rstanding	that the	9 OSE	ISC mak	e no w	arranties	s, expre	essed or I	mplied,
8/16/17 8:48 AM			,, <u> </u>	,, _, _, _, , , , , , , , , , , , , , ,					-		TER CO	DLUM	N/ AVE	RAGE	DEPTH	то

Appendix B Laboratory Analytical Report



June 29, 2017

DEAN ERICSON ENERGY TRANSFER P. O. BOX 1226 JAL, NM 88252

RE: TD -5

Enclosed are the results of analyses for samples received by the laboratory on 06/23/17 12:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



ENERGY TRANSFER
DEAN ERICSON
P. O. BOX 1226
JAL NM, 88252
Fax To:

Received:	06/23/2017	Sampling Date:	06/22/2017
Reported:	06/29/2017	Sampling Type:	Soil
Project Name:	TD -5	Sampling Condition:	Cool & Intact
Project Number:	10 IN HORIZONTALS (1.4M N. OF STAT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: NORTH HORIZONTAL 6" (H701650-01)

BTEX 8021B	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2017	ND	2.23	111	2.00	3.81	
Toluene*	0.075	0.050	06/27/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	<0.050	0.050	06/27/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	0.365	0.150	06/27/2017	ND	6.32	105	6.00	2.46	
Total BTEX	0.440	0.300	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 72-148							
Chloride, SM4500Cl-B	mg/	'kg	Analyze						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/27/2017	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	<10.0	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	14.6	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	95.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	100 9	% 34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



	ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received:	06/23/2017	Sampling Date:	06/22/2017
Reported:	06/29/2017	Sampling Type:	Soil
Project Name:	TD -5	Sampling Condition:	Cool & Intact
Project Number:	10 IN HORIZONTALS (1.4M N. OF STAT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: SOUTH HORIZONTAL 6" (H701650-02)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2017	ND	2.23	111	2.00	3.81	
Toluene*	0.480	0.050	06/27/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	0.064	0.050	06/27/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	1.06	0.150	06/27/2017	ND	6.32	105	6.00	2.46	
Total BTEX	1.60	0.300	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.9	% 72-148	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/27/2017	ND	432	108	400	0.00	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	<10.0	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	<10.0	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	86.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	90.0	% 34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



	ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received:	06/23/2017	Sampling Date:	06/22/2017
Reported:	06/29/2017	Sampling Type:	Soil
Project Name:	TD -5	Sampling Condition:	Cool & Intact
Project Number:	10 IN HORIZONTALS (1.4M N. OF STAT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: EAST HORIZONTAL 6" (H701650-03)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2017	ND	1.87	93.4	2.00	0.375	
Toluene*	<0.050	0.050	06/27/2017	ND	1.73	86.4	2.00	1.75	
Ethylbenzene*	<0.050	0.050	06/27/2017	ND	1.85	92.7	2.00	0.741	
Total Xylenes*	<0.150	0.150	06/27/2017	ND	5.53	92.2	6.00	0.209	
Total BTEX	<0.300	0.300	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.9	% 72-148	}						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3120	16.0	06/27/2017	ND	480	120	400	10.5	QM-07
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	38.2	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	<10.0	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	86.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	90.8	% 34.7-15	7						

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*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



	ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received:	06/23/2017	Sampling Date:	06/22/2017
Reported:	06/29/2017	Sampling Type:	Soil
Project Name:	TD -5	Sampling Condition:	Cool & Intact
Project Number:	10 IN HORIZONTALS (1.4M N. OF STAT	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

Sample ID: WEST HORIZONTAL 6" (H701650-04)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2017	ND	1.87	93.4	2.00	0.375	
Toluene*	0.101	0.050	06/27/2017	ND	1.73	86.4	2.00	1.75	
Ethylbenzene*	<0.050	0.050	06/27/2017	ND	1.85	92.7	2.00	0.741	
Total Xylenes*	<0.150	0.150	06/27/2017	ND	5.53	92.2	6.00	0.209	
Total BTEX	<0.300	0.300	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.7	% 72-148	2						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/27/2017	ND	480	120	400	10.5	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	<10.0	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	<10.0	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	83.6	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	85.6	% 34.7-15	7						

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

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Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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Sample Condition Cool Intact Yes TYes No No

Unitials

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Delivered By: (Circle One) Sampler - UPS - Bus - Other:

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Relinquished By

Relinquished By:

Date/23/17 Time:/:40

rdinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Received By:

Phone Result:

Fax Result:

REMARKS:

□ Yes

I No

Add'l Phone #: Add'l Fax #:

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Date: 6-3317 Time: 40

Received By:

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Page 7 of 7



June 29, 2017

DEAN ERICSON ENERGY TRANSFER P. O. BOX 1226 JAL, NM 88252

RE: TD -5

Enclosed are the results of analyses for samples received by the laboratory on 06/23/17 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



JAL NM, 88252 Fax To:	
	 ict

Sample ID: #1 6" (H701649-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2017	ND	2.23	111	2.00	3.81	
Toluene*	<0.050	0.050	06/27/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	<0.050	0.050	06/27/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	<0.150	0.150	06/27/2017	ND	6.32	105	6.00	2.46	
Total BTEX	<0.300	0.300	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	100 9	% 72-148	2						
Chloride, SM4500Cl-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	06/27/2017	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	10.6	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	22.6	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	95.6	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	99.9	% 34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received:	06/23/2017		Sampling Date:	06/22/2017
Reported:	06/29/2017		Sampling Type:	Soil
Project Name:	TD -5		Sampling Condition:	Cool & Intact
Project Number: Project Location:	SPILL AREA (1.4M NONE GIVEN	N. OF STATELINE R	Sample Received By:	Tamara Oldaker

Sample ID: #2 6" (H701649-02)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.16	1.00	06/27/2017	ND	2.23	111	2.00	3.81	
Toluene*	53.9	1.00	06/27/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	8.31	1.00	06/27/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	152	3.00	06/27/2017	ND	6.32	105	6.00	2.46	
Total BTEX	217	6.00	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	102	% 72-148	,						
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9860	16.0	06/27/2017	ND	432	108	400	0.00	
TPH 8015M	mg	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1990	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	2590	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	35.3	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	156	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	110	% 34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received:	06/23/2017		Sampling Date:	06/22/2017
Reported:	06/29/2017		Sampling Type:	Soil
Project Name:	TD -5		Sampling Condition:	Cool & Intact
Project Number:	SPILL AREA (1.4M	N. OF STATELINE R	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN			

Sample ID: #3 6" (H701649-03)

BTEX 8021B	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2017	ND	2.23	111	2.00	3.81	
Toluene*	<0.050	0.050	06/27/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	<0.050	0.050	06/27/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	<0.150	0.150	06/27/2017	ND	6.32	105	6.00	2.46	
Total BTEX	<0.300	0.300	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	99.1	% 72-148							
Chloride, SM4500Cl-B	mg	′kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4400	16.0	06/27/2017	ND	432	108	400	0.00	
TPH 8015M	mg	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	13.9	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	<10.0	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	103	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	107	% 34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

- ND
 Analyte NOT DETECTED at or above the reporting limit

 RPD
 Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Relinquished By. Time: // T	PrEASE NOTE: Liability and Damages. Cardinal's liability and clerit's exclusive remedy for any claim arising whether based in contract or tort, shall analyses. All claims including those for negligence and any other cause whatsoever shall be doemed waived uses made in writing and received by service. In no event shall cardinal be liable for incidental or consequential damages, including whoult limitation, business interruptions, los or text, a antilates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon Refinques. The damages including the service has based upon the performance of services hereunder by Cardinal, regardless of whether such claim is based upon the performance of services hereunder by Cardinal, regardless of whether such claim is based upon the performance of services hereunder by Cardinal, regardless of whether such claim is based upon the performance of services hereunder by Cardinal, regardless of whether such claim is based upon the performance of services hereunder by Cardinal, regardless of whether such claim is based upon the performance of services hereunder by Cardinal, regardless of whether such claim is based upon the performance of services hereunder by Cardinal, regardless of whether such claim is based upon the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal, regardless of the performance of services hereunder by Cardinal,	Lab I.D. Sample I.D. 7 ± 2 6^{4} 3 ± 3 6^{6} (G)RAB OR (C)OMP.	Address: City: State: Zip: Phone #: Fax #: Project #: Project Owner: Project Location: Spill Arca (State I.we Sampler Name: TJ)-5 (0° (I.4 M.L.5 M Project Location: Spill Arca (State I.we Sampler Name: TJ)-5 (0° (I.4 M.L.5 M	
Image: Sample Condition Checked BY: REMARKS: Sample Condition CHECKED BY: Cool Cool Intact (Initidis) Yes Yes Yes No No No	Intract or tort, shall be limited to the amount paid by the client for the grand reset by Cardinal within 30 days after completion of the explications, loss of uses or profits incurred by client its subaidaries, laim is based upon any of the above stated reasons or otherwise.	# CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER : DATE WE TIME	Pr.O. #: Company: Attn: Address: Address: City: City: City: City: Phone #: Fax #: MATRIX PRESERV. SAMPLING	
3	e Yes I No Add' Phone #:			CUSTODY AND ANALYSIS REQUEST

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Page 6 of 6



June 29, 2017

DEAN ERICSON ENERGY TRANSFER P. O. BOX 1226 JAL, NM 88252

RE: TD -5

Enclosed are the results of analyses for samples received by the laboratory on 06/23/17 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



		ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received:	06/23/2017		Sampling Date:	06/22/2017
Reported:	06/29/2017		Sampling Type:	Soil
Project Name:	TD -5		Sampling Condition:	Cool & Intact
Project Number:	WEST HOLE (1.4M	N. OF STATELINE R	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN			

Sample ID: VERTICAL 7' (H701647-01)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	0.211	0.050	06/28/2017	ND	2.23	111	2.00	3.81	
Toluene*	2.56	0.050	06/28/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	0.460	0.050	06/28/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	8.24	0.150	06/28/2017	ND	6.32	105	6.00	2.46	
Total BTEX	11.5	0.300	06/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 %	5 72-148	,						
Chloride, SM4500Cl-B	mg/k	cg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	5440	16.0	06/26/2017	ND	416	104	400	3.77	
TPH 8015M	mg/k	cg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10	90.1	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	226	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	<10.0	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	102 %	28.3-16	4						
Surrogate: 1-Chlorooctadecane	102 %	34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received:	06/23/2017		Sampling Date:	06/22/2017
Reported:	06/29/2017		Sampling Type:	Soil
Project Name:	TD -5		Sampling Condition:	Cool & Intact
Project Number: Project Location:	WEST HOLE (1.4M NONE GIVEN	N. OF STATELINE RI	Sample Received By:	Tamara Oldaker

Sample ID: NORTH WALL 3' (H701647-02)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/28/2017	ND	2.23	111	2.00	3.81	
Toluene*	0.073	0.050	06/28/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	<0.050	0.050	06/28/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	0.166	0.150	06/28/2017	ND	6.32	105	6.00	2.46	
Total BTEX	<0.300	0.300	06/28/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	100	% 72-148	2						
Chloride, SM4500Cl-B	mg	/kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1010	16.0	06/26/2017	ND	416	104	400	3.77	
TPH 8015M	mg	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	<10.0	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	<10.0	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	95.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	100	% 34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



		ENERGY TRANSFER DEAN ERICSON P. O. BOX 1226 JAL NM, 88252 Fax To:		
Received: Reported:	06/23/2017 06/29/2017		Sampling Date: Sampling Type:	06/22/2017 Soil
Project Name: Project Number: Project Location:	TD -5 West Hole (1.4M None given	N. OF STATELINE RI	Sampling Condition: Sample Received By:	Cool & Intact Tamara Oldaker

Sample ID: SOUTH WALL 3' (H701647-03)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/27/2017	ND	2.23	111	2.00	3.81	
Toluene*	<0.050	0.050	06/27/2017	ND	2.05	102	2.00	2.84	
Ethylbenzene*	<0.050	0.050	06/27/2017	ND	2.15	108	2.00	3.32	
Total Xylenes*	<0.150	0.150	06/27/2017	ND	6.32	105	6.00	2.46	
Total BTEX	<0.300	0.300	06/27/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	101	% 72-148	}						
Chloride, SM4500Cl-B	mg,	′kg	Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1400	16.0	06/26/2017	ND	416	104	400	3.77	
TPH 8015M	mg/	′kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	15.3	10.0	06/26/2017	ND	207	104	200	1.79	
DRO >C10-C28	81.6	10.0	06/26/2017	ND	214	107	200	2.19	
EXT DRO >C28-C36	<10.0	10.0	06/26/2017	ND					
Surrogate: 1-Chlorooctane	97.8	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	<i>99.3</i>	% 34.7-15	7						

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Project Manager: Company Name: City: Project Location: Project Name: Project #: Phone #: Address: Sampler Name: analyses. All claims including those for nepligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after con service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client. Relinquished By: Relinquished-By Sampler - UPS - Bus - Other: LEASE NOTE: Liability 4701641 FOR LAB USE ONLY Lab I.D. Delivered By: (Circle One) **CARDINAL** Laboratories UN 101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 8 Ø Norm er huch Wast- hole Southward 3 Deaw Enisour elated to the pe Sample I.D. 富 Project Owner: Time: Fax #: State: N Time: 30 Date: 23-17 1.4 miles worth of clusive remedy for any Bling State live under by C 2.90 Received By: Zip (G)RAB OR (C)OMP Received By: # CONTAINERS regardless of whether such claim is based upon any of the GROUNDWATER Rd Cool Intact WASTEWATER DAD Sample Condition MATRIX SOIL OIL SLUDGE ions, loss of use, or loss of profits incurred by client, its' subsidiaries, State: P.O. #: City: Attn: Company: t or tort, sh OTHER Fax #: Phone #: Address: ACID/BASE PRESERV. ICE / COOL CHECKED BY: 0 BILL TO OTHER (Initials) Zip: (0/22/17 9:15 pm DATE SAMPLING CHAIN-OF-CUSTODY AND ANALYSIS REQUEST Fax Result: REMARKS: Phone Result: I by the client for the TIME pletion of the applicable TPH EXF □ Yes BT es I No ANALYSIS REQUEST Add'l Phone #: Add'l Fax #:

Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Page 6 of 6



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

August 15, 2017 Bernie Bockish GHD 6121 Indian School Road, NE #200 Albuquerque, NM 87110 TEL: (505) 884-0672 FAX

OrderNo.: 1707D31

RE: 11135250 TD-5

Dear Bernie Bockish:

Hall Environmental Analysis Laboratory received 6 sample(s) on 7/26/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued August 02, 2017.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1707D31

Date Reported: 8/15/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

11135250 TD-5

1707D31-001

Project:

Lab ID:

Client Sample ID: S11135250-072417MG-TP-2-12 Collection Date: 7/24/2017 11:00:00 AM

Received Date: 7/26/2017 9:50:00 AM

240 221 1/0/201 001		0012							
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 300.0: ANIONS					Analys	t: JRR			
Chloride	75	30	mg/Kg	20	7/28/2017 3:11:53 PM	33064			
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analys	t: AG			
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	7/31/2017 5:08:51 PM	33074			
Surr: BFB	86.9	70-130	%Rec	1	7/31/2017 5:08:51 PM	33074			
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	6			Analys	t: TOM			
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	7/31/2017 6:40:04 PM	33062			
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/31/2017 6:40:04 PM	33062			
Surr: DNOP	88.3	70-130	%Rec	1	7/31/2017 6:40:04 PM	33062			
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analys	t: AG			
Benzene	ND	0.024	mg/Kg	1	7/31/2017 5:08:51 PM	33074			
Toluene	ND	0.048	mg/Kg	1	7/31/2017 5:08:51 PM	33074			
Ethylbenzene	ND	0.048	mg/Kg	1	7/31/2017 5:08:51 PM	33074			
Xylenes, Total	ND	0.096	mg/Kg	1	7/31/2017 5:08:51 PM	33074			
Surr: 1,2-Dichloroethane-d4	80.6	70-130	%Rec	1	7/31/2017 5:08:51 PM	33074			
Surr: 4-Bromofluorobenzene	86.3	70-130	%Rec	1	7/31/2017 5:08:51 PM	33074			
Surr: Dibromofluoromethane	82.7	70-130	%Rec	1	7/31/2017 5:08:51 PM	33074			
Surr: Toluene-d8	90.3	70-130	%Rec	1	7/31/2017 5:08:51 PM	33074			

Matrix: SOIL

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report Lab Order 1707D31

Date Reported: 8/15/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: GHD

11135250 TD-5

1707D31-002

Project:

Lab ID:

Client Sample ID: S11135250-072417MG-TP-1-10 Collection Date: 7/24/2017 11:15:00 AM

Received Date: 7/26/2017 9:50:00 AM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: JRR
Chloride	ND	30	mg/Kg	20	7/28/2017 3:24:18 PM	33064
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	AG
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	7/31/2017 5:38:21 PM	33074
Surr: BFB	84.4	70-130	%Rec	1	7/31/2017 5:38:21 PM	33074
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANICS	6			Analyst	: TOM
Diesel Range Organics (DRO)	ND	9.4	mg/Kg	1	7/31/2017 7:08:51 PM	33062
Motor Oil Range Organics (MRO)	ND	47	mg/Kg	1	7/31/2017 7:08:51 PM	33062
Surr: DNOP	84.4	70-130	%Rec	1	7/31/2017 7:08:51 PM	33062
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	AG
Benzene	ND	0.024	mg/Kg	1	7/31/2017 5:38:21 PM	33074
Toluene	ND	0.048	mg/Kg	1	7/31/2017 5:38:21 PM	33074
Ethylbenzene	ND	0.048	mg/Kg	1	7/31/2017 5:38:21 PM	33074
Xylenes, Total	ND	0.097	mg/Kg	1	7/31/2017 5:38:21 PM	33074
Surr: 1,2-Dichloroethane-d4	81.7	70-130	%Rec	1	7/31/2017 5:38:21 PM	33074
Surr: 4-Bromofluorobenzene	84.1	70-130	%Rec	1	7/31/2017 5:38:21 PM	33074
Surr: Dibromofluoromethane	80.6	70-130	%Rec	1	7/31/2017 5:38:21 PM	33074
Surr: Toluene-d8	89.6	70-130	%Rec	1	7/31/2017 5:38:21 PM	33074

Matrix: SOIL

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

- * Value exceeds Maximum Contaminant Level. D
- Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 2 of 10 J
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Hall Environmental Anal	ysis Laborat	Lab Order 1707D31 Date Reported: 8/15/2017				
CLIENT: GHD			Client Sampl	e ID: S11135250-07241	7MG-TP-6-4	
Project: 11135250 TD-5			Collection I	Date: 7/24/2017 11:30:00	O AM	
Lab ID: 1707D31-003	Matrix: S	SOIL	Received I	Date: 7/26/2017 9:50:00	AM	
Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS				Д	nalyst: JRR	
Chloride	54	30	mg/Kg	20 7/28/2017 3:36:4	42 PM 33064	

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- Analyte detected below quantitation limits Page 3 of 10 J

Analytical Report

- Р Sample pH Not In Range
- Reporting Detection Limit RL
- W Sample container temperature is out of limit as specified

Hall Environmental Anal	ysis Laborat	Lab Order 1707D31 Date Reported: 8/15/2017			
CLIENT: GHD		•	Client Sampl	e ID: S11135250-072417M	
Project: 11135250 TD-5			-	Date: 7/24/2017 11:45:00 A	
Lab ID: 1707D31-004	Matrix: S	SOIL	Received I	Date: 7/26/2017 9:50:00 AM	Л
Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Ana	lyst: JRR
Chloride	300	30	mg/Kg	20 7/28/2017 3:49:07 F	PM 33064

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- D Sample Difuted Due to Maurx
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 10

Analytical Report

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Hall Environmental Anal	ysis Laborat	Lab Order 1707D31 Date Reported: 8/15/2017				
CLIENT: GHD			Client Sampl	e ID: \$11135250-072417M	G-TP-4-12	
Project: 11135250 TD-5			Collection	Date: 7/24/2017 12:20:00 P	М	
Lab ID: 1707D31-005	Matrix:	SOIL	Received	Date: 7/26/2017 9:50:00 AM	Л	
Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS				Ana	lyst: JRR	
Chloride	140	30	mg/Kg	20 7/28/2017 4:01:32 F	PM 33064	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 10

Analytical Report

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

	Analytical Report
	Lab Order 1707D31
Hall Environmental Analysis Laboratory, Inc.	Date Reported: 8/15/2017
CLIENT: GHD	Client Sample ID: S11135250-072417MG-TP-3-10
D roingt: 11125250 TD 5	Collection Data, 7/24/2017 12.25.00 DM

CLIENT: GHD	Client Sample ID: S11135250-072417MG-TP-3				
Project: 11135250 TD-5	Collection Date: 7/24/2017 12:35:00 PM				
Lab ID: 1707D31-006	Matrix:	SOIL	Received	Date: 7/26/2017 9:50:00 AM	
Analyses	Result	PQL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	t: JRR
Chloride					

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 6 of 10
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#: 1707D31 15-Aug-17

 Client:
 GHD

 Project:
 11135250 TD-5

Sample ID MB-33064	SampType: MBLK	TestCode: EPA Method	300.0: Anions	
Client ID: PBS	Batch ID: 33064	RunNo: 44581		
Prep Date: 7/28/2017	Analysis Date: 7/28/2017	SeqNo: 1410134	Units: mg/Kg	
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Chloride	ND 1.5			
	ND 1.5			
	SampType: LCS	TestCode: EPA Method	300.0: Anions	
Sample ID LCS-33064 Client ID: LCSS		TestCode: EPA Method RunNo: 44581	300.0: Anions	
Sample ID LCS-33064	SampType: LCS		300.0: Anions Units: mg/Kg	
Sample ID LCS-33064 Client ID: LCSS	SampType: LCS Batch ID: 33064 Analysis Date: 7/28/2017	RunNo: 44581		RPDLimit Qual

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 7 of 10

Client: GHD Project: 11135250 TD-5

Sample ID LCS-33062	SampT	SampType: LCS		Tes	TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 33062		RunNo: 44604							
Prep Date: 7/28/2017	Analysis D	Date: 7/	31/2017	S	SeqNo: 14	410369	Units: mg/k	٤g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	95.0	73.2	114			
C DNOD	1.0		E 000		01 5	70	130			
Surr: DNOP	4.6		5.000		91.5	70	130			
Sample ID MB-33062		ype: ME				-	8015M/D: Di	esel Range	e Organics	
Sample ID MB-33062	SampT	ype: ME n ID: 33	BLK	Tes		PA Method		esel Range	e Organics	
Sample ID MB-33062	SampT	n ID: 33	BLK	Tes F	tCode: El	PA Method 4604		J	e Organics	
Sample ID MB-33062 Client ID: PBS	SampT Batch	n ID: 33	3LK 062 31/2017	Tes F	tCode: El	PA Method 4604	8015M/D: Di	J	e Organics	Qual
Sample ID MB-33062 Client ID: PBS Prep Date: 7/28/2017 Analyte	SampT Batch Analysis D	n ID: 33 Date: 7/	3LK 062 31/2017	Tes F S	tCode: EF RunNo: 44 SeqNo: 14	PA Method 4604 410370	8015M/D: Die Units: mg/K	(g	-	Qual
Sample ID MB-33062 Client ID: PBS Prep Date: 7/28/2017	SampT Batch Analysis D Result	n ID: 33 Date: 7/ PQL	3LK 062 31/2017	Tes F S	tCode: EF RunNo: 44 SeqNo: 14	PA Method 4604 410370	8015M/D: Die Units: mg/K	(g	-	Qual

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 8 of 10

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1707D31 15-Aug-17

Client: GHD

Sample ID mb-33074	Samp	SampType: MBLK			TestCode: EPA Method 8260B: Volatiles Short List					
Client ID: PBS	Batc	Batch ID: 33074			RunNo: 44623					
Prep Date: 7/28/2017	Analysis [Date: 7/	31/2017	S	eqNo: 1	410839	Units: mg/K	íg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.40		0.5000		79.4	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		85.3	70	130			
Surr: Dibromofluoromethane	0.41		0.5000		81.6	70	130			
Surr: Toluene-d8	0.46		0.5000		92.2	70	130			
Sample ID Ics-33074	Samp	Гуре: LC	S	Test	Code: El	PA Method	8260B: Volat	tiles Short	List	
Sample ID Ics-33074 Client ID: LCSS	•	Гуре: LC h ID: 33			Code: El		8260B: Volat	iles Short	List	
	•	h ID: 33	074	R		4623	8260B: Volat Units: mg/K		List	
Client ID: LCSS	Batc	h ID: 33	074 31/2017	R	unNo: 4	4623			List	Qual
Client ID: LCSS Prep Date: 7/28/2017 Analyte	Batc Analysis [h ID: 33 Date: 7/	074 31/2017	R	unNo: 4 eqNo: 1	4623 410840	Units: mg/K	ſg		Qual
Client ID: LCSS Prep Date: 7/28/2017 Analyte Benzene	Batc Analysis I Result	h ID: 33 Date: 7/ PQL	074 31/2017 SPK value	R S SPK Ref Val	unNo: 4 eqNo: 1 %REC	4623 410840 LowLimit	Units: mg/K HighLimit	ſg		Qual
Client ID: LCSS Prep Date: 7/28/2017 Analyte Benzene Toluene	Batc Analysis I Result 1.0	h ID: 33 Date: 7/ PQL 0.025	074 31/2017 SPK value 1.000	R S SPK Ref Val 0	unNo: 4 eqNo: 1 %REC 105	4623 410840 LowLimit 70	Units: mg/K HighLimit 130	ſg		Qual
Client ID: LCSS Prep Date: 7/28/2017 Analyte Benzene Toluene Ethylbenzene	Batc Analysis I <u>Result</u> 1.0 1.1	h ID: 33 Date: 7 PQL 0.025 0.050	074 31/2017 SPK value 1.000 1.000	R S SPK Ref Val 0 0	unNo: 4 eqNo: 1 <u>%REC</u> 105 111	4623 410840 LowLimit 70 70	Units: mg/K HighLimit 130 130	ſg		Qual
Client ID: LCSS Prep Date: 7/28/2017	Batc Analysis I Result 1.0 1.1 1.0	h ID: 33 0 Date: 7 / <u>PQL</u> 0.025 0.050 0.050	074 31/2017 SPK value 1.000 1.000 1.000	R S SPK Ref Val 0 0 0	unNo: 4 eqNo: 1 <u>%REC</u> 105 111 101	4623 410840 LowLimit 70 70 70	Units: mg/K HighLimit 130 130 130	ſg		Qual
Client ID: LCSS Prep Date: 7/28/2017 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Batc Analysis I Result 1.0 1.1 1.0 2.9	h ID: 33 0 Date: 7 / <u>PQL</u> 0.025 0.050 0.050	074 31/2017 SPK value 1.000 1.000 1.000 3.000	R S SPK Ref Val 0 0 0	unNo: 4 eqNo: 1 <u>%REC</u> 105 111 101 96.1	4623 410840 LowLimit 70 70 70 70 70	Units: mg/K HighLimit 130 130 130 130	ſg		Qual
Client ID: LCSS Prep Date: 7/28/2017 Analyte Benzene Toluene Ethylbenzene Kylenes, Total Surr: 1,2-Dichloroethane-d4	Batc Analysis I Result 1.0 1.1 1.0 2.9 0.41	h ID: 33 0 Date: 7 / <u>PQL</u> 0.025 0.050 0.050	074 31/2017 SPK value 1.000 1.000 1.000 3.000 0.5000	R S SPK Ref Val 0 0 0	unNo: 4 eqNo: 1 %REC 105 111 101 96.1 81.3	4623 410840 LowLimit 70 70 70 70 70 70	Units: mg/K HighLimit 130 130 130 130 130	ſg		Qual
Client ID: LCSS Prep Date: 7/28/2017 Analyte enzene oluene thylbenzene ylenes, Total Surr: 1,2-Dichloroethane-d4 Surr: 4-Bromofluorobenzene	Batc Analysis I Result 1.0 1.1 1.0 2.9 0.41 0.43	h ID: 33 0 Date: 7 / <u>PQL</u> 0.025 0.050 0.050	074 31/2017 SPK value 1.000 1.000 3.000 0.5000 0.5000	R S SPK Ref Val 0 0 0	anno: 4 aeqNo: 1 <u>%REC</u> 105 111 101 96.1 81.3 86.7	4623 410840 LowLimit 70 70 70 70 70 70 70 70	Units: mg/K HighLimit 130 130 130 130 130 130 130	ſg		Qual

Qualifiers:

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

Page 9 of 10

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client **Project:** 11135250 TD-5

nt:	GHD

Sample ID mb-33074	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: PBS	Batch	ID: 33	074	R	unNo: 4	4623				
Prep Date: 7/28/2017	Analysis D	ate: 7/	31/2017	S	SeqNo: 1	410804	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	430		500.0		86.9	70	130			
Sample ID Ics-33074	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D Mod:	Gasoline	Range	
Client ID: LCSS	Batch	ID: 33	074	R	anNo: 4	4623				
Prep Date: 7/28/2017	Analysis D	ate: 7/	31/2017	S	SeqNo: 1	410805	Units: mg/k	(g		
Prep Date: 7/28/2017 Analyte	Analysis D Result	ate: 7/ PQL		SPK Ref Val	eqNo: 1 %REC	410805 LowLimit	Units: mg/k HighLimit	(g %RPD	RPDLimit	Qual
•	,	-			•		U	0	RPDLimit	Qual

- Value exceeds Maximum Contaminant Level. *
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Practical Quanitative Limit PQL
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 10 of 10

	CONMENTAL YSIS Ratory	TEL: 505-345-3975	4901 Hawkins N guerque, NM 8710	[§] Sam	ple Log-In C	heck List
Client Name:	GHD	Work Order Number:	1707D31		RcptNo:	1
Received By:	Richie Eriacho	7/26/2017 9:50:00 AM		2-2	ра 1 мания	
Completed By:	Anne Thorne	7/26/2017 12:03:47 PM		anne Ann		
Reviewed By:	ENM	7/26/17				
Chain of Cus	tody					
1. Custody sea	ils intact on sample bottle	s?	Yes 🗌	No 🗌	Not Present 🗹	
2. Is Chain of C	Custody complete?		Yes 🗹	No 🗌	Not Present	
3. How was the	e sample delivered?		<u>Courier</u>			
<u>Log In</u>						
4. Was an atte	mpt made to cool the sar	nples?	Yes 🗹	No 🗌	NA 🗌	
5. Were all san	nples received at a tempe	erature of >0° C to 6.0°C	Yes 🗹	No 🗌		
6. Sample(s) ir	n proper container(s)?		Yes 🗹	No 🗌		
7. Sufficient sa	mple volume for indicated	test(s)?	Yes 🗹	No 🗌		
8. Are samples	(except VOA and ONG)	properly preserved?	Yes 🗹	No 🗌	_	
9. Was preserv	vative added to bottles?		Yes 🗌	No 🗹	NA 🗌	
10.VOA vials ha	ave zero headspace?		Yes	No 🗌	No VOA Vials 🗹	
11. Were any sa	ample containers received	l broken?	Yes 🗀	No 🗹	# of preserved bottles checked	
	vork match bottle labels? pancies on chain of custo	du)	Yes 🗹	No 🗌	for pH:	or >12 unless noted)
	correctly identified on Ch	•••	Yes 🔽	No 🗌	Adjusted?	
	at analyses were request		Yes 🗹	No 🗌		
	ding times able to be met customer for authorization		Yes 🗹	No 🗌	Checked by:	
Special Hand	lling (if applicable)					
16. Was client ne	otified of all discrepancies	with this order?	Yes 🗌	No 🗔	NA 🔽	_
Person	n Notified:	Date				
By Wh	om:	Via:] eMail 🗌 Pho	one 🗌 Fax	🗌 In Person	
Regard	ding:					
Client	Instructions:					
17. Additional re	emarks:					

_ _

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By	
1	2.3	Good	Yes]

	HALL ENVIRONMENTAL	ANALISIS LABORALORI	q	0			(0	(N	1 OL	Air Bubbles ('												
	MN	5	www.hallenvironmental.com 4901 Hawkins NE - Albudueroue NM 87109	107		-	(1	v 2/ (AO/	/-ime2) 0728	X	X	X	X	X	X			_	-	T	
	o a		www.hallenvironmental.com ns NE - Albirdiaemie NM 8	505-345-4107	lest					(AOV) 80928	-									-		
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	ź		viron	Fax	ysis	(*(00°'8C	" ^z ON	EON	,IO,A) anoinA												
	m ž	i.	allen-		Anal					Nets 8 Mets											3	
			NF NF	Tel. 505-345-3975			(SMI	67.167.1563	101	0168) a'HA9							_					
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12			4901	Tel.			1931/11/1926		1000	8TM + X3T8	122.23	×	_				_		_	-	ks:	
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d Time:	d 🗆 Rush		A	~	AC	ager:	rd Bockisch	Ichael	porture: 2-	Preservative Type	TCE									/	M	1
Tum-Around Time:	X Standard	Project Name:	11135250	Project #:	narasin	Project Manager	Bernard	Sampler: M	Samole Temperature:	Container Type and #	4251 Sec	-				-				C	<u>P</u>	RECEIVED by:
Chain-of-Custody Record	Client: GHD Secrices, Inc		Mailing Address: (121 Indian School Rd Ste 200	N/N 87110	22	email or Fax#: Bernard, Bockich Oghd, com	Level 4 (Full Validation)			Sample Request ID	C1257224514570-022250111-2	0-1-1-1- 9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	7-9-71-9-11.114er0-05252111-2	4-2-5-7-201-14-10-05536111-2	C1+ 21-91-11-52-0525011-5	315-32-32-2417-20-2525111-2					or.	
-of-Cus	Servic		PHILIPIS:	Albuquerove, A	Phone #: 505 884 0673	Sernarch	U	□ Other		Matrix	S s	S	S	S	S	5					Relinquished by	
hain	CHE		Address	Pugu	t: SoS	Fax#:R	ackage: Jard	ation \P	EDD (Type)	Time	1106	1115	1130	114S	12.20	50001					Time: (466	/ %
C	Client:		Mailing	NEAN	Phone #	email or	QA/QC Package:	Accreditation	DEDD	Date	7124	7124	124	HEIL	7124	7124					Date:	4pg



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

November 17, 2017

Bernie Bockisch GHD 6121 Indian School Road, NE #200 Albuquerque, NM 87110 TEL: (505) 884-0672 FAX

RE: TD5

OrderNo.: 1711617

Dear Bernie Bockisch:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/10/2017 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Lab Order: 1711617

Date Reported: 11/17/2017

CLIENT:GHDProject:TD5					Lab ()rder: 171	1617
Lab ID: 1711617-001			(Collection I	Date: 10	/30/2017 1:40:00	PM
Client Sample ID: S-11135250-06-103	017-MG-TP-7-	-2		Ma	trix: SC	DIL	
Analyses	Result	PQL (Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS						A	nalyst: MRA
Chloride	1800	75		mg/Kg	50	11/15/2017 10:09):06 PM 34980
EPA METHOD 8015M/D: DIESEL RANG						А	nalyst: TOM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/15/2017 10:10	-
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/15/2017 10:10	
Surr: DNOP	105	70-130		%Rec	1	11/15/2017 10:10	0:09 AM 34989
EPA METHOD 8015D: GASOLINE RAN	GE					A	nalyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	н	mg/Kg	1	11/14/2017 10:11	:38 AM 34953
Surr: BFB	95.6	15-316	н	%Rec	1	11/14/2017 10:11	:38 AM 34953
EPA METHOD 8021B: VOLATILES						A	nalyst: NSB
Benzene	ND	0.024	н	mg/Kg	1	11/14/2017 10:11	:38 AM 34953
Toluene	ND	0.049	н	mg/Kg	1	11/14/2017 10:11	:38 AM 34953
Ethylbenzene	ND	0.049	н	mg/Kg	1	11/14/2017 10:11	:38 AM 34953
Xylenes, Total	ND	0.098	н	mg/Kg	1	11/14/2017 10:11	:38 AM 34953
Surr: 4-Bromofluorobenzene	94.3	80-120	Н	%Rec	1	11/14/2017 10:11	:38 AM 34953
Lab ID: 1711617-002			(Collection I	Date: 10	/31/2017 10:50:0	0 AM
Client Sample ID: S-11135250-06-103	117-MG-TP-1	0-4		Ma	trix: SC	DIL	
-	117-MG-TP-10 Result	0-4 PQL	Qual			DIL ' Date Analyzed	Batch ID
-			Qual			Date Analyzed	Batch ID
Analyses			Qual			Date Analyzed	nalyst: CJS
Analyses EPA METHOD 300.0: ANIONS	Result 99	PQL .	Qual	Units	DF	Date Analyzed A 11/15/2017 1:38:	nalyst: CJS 02 AM 34980
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG	Result 99 E ORGANICS	PQL 30	Qual	Units mg/Kg	DF 20	Date Analyzed A 11/15/2017 1:38: A	nalyst: CJS 02 AM 34980 nalyst: TOM
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO)	Result 99	PQL .	Qual	Units mg/Kg mg/Kg	DF	Date Analyzed A 11/15/2017 1:38:	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG	Result 99 E ORGANICS ND	PQL 30 9.5	Qual	Units mg/Kg	DF 20 1	Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	Result 99 E ORGANICS ND ND 107	PQL 30 9.5 47	Qual	Units mg/Kg mg/Kg mg/Kg	DF 20 1 1	Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:25	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	Result 99 E ORGANICS ND ND 107	PQL 30 9.5 47	Qual	Units mg/Kg mg/Kg mg/Kg	DF 20 1 1	Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:25	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 nalyst: NSB
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG	Result 99 FE ORGANICS ND ND 107 GE	PQL 30 9.5 47 70-130	Qual	Units mg/Kg mg/Kg %Rec	DF 20 1 1 1	Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:25 A	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 nalyst: NSB 09 PM 34953
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO)	Result 99 E ORGANICS ND 107 GE ND	PQL 30 9.5 47 70-130 4.9	Qual	Units mg/Kg mg/Kg %Rec mg/Kg	DF 20 1 1 1	Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:25 A 11/14/2017 1:20: 11/14/2017 1:20:	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 nalyst: NSB 09 PM 34953
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB	Result 99 E ORGANICS ND 107 GE ND	PQL 30 9.5 47 70-130 4.9	Qual	Units mg/Kg mg/Kg %Rec mg/Kg	DF 20 1 1 1	Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:25 A 11/14/2017 1:20: 11/14/2017 1:20:	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 nalyst: NSB 09 PM 34953 09 PM 34953 nalyst: NSB
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES	Result 99 E ORGANICS ND 107 GE ND 94.3	PQL 30 9.5 47 70-130 4.9 15-316	Qual	Units mg/Kg mg/Kg %Rec mg/Kg %Rec	DF 20 1 1 1 1 1	A Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:25 A 11/14/2017 1:20: 11/14/2017 1:20: A	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 5:38 AM 34953 09 PM 34953 09 PM 34953 nalyst: NSB 09 PM 34953
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene	Result 99 E ORGANICS ND 107 GE ND 94.3 ND	PQL 30 9.5 47 70-130 4.9 15-316 0.025	Qual	Units mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg	DF 20 1 1 1 1 1	A Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:26 A 11/14/2017 1:20: A 11/14/2017 1:20: A	nalyst: CJS 02 AM 34980 nalyst: TOM 538 AM 34989 538 AM 34989 538 AM 34989 538 AM 34989 538 AM 34953 09 PM 34953 09 PM 34953 09 PM 34953
Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene Toluene	Result 99 E ORGANICS ND 107 GE ND 94.3 ND ND ND	PQL 30 9.5 47 70-130 4.9 15-316 0.025 0.049	Qual	Units mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg mg/Kg	DF 20 1 1 1 1 1 1 1	A Date Analyzed A 11/15/2017 1:38: A 11/15/2017 11:25 11/15/2017 11:25 11/15/2017 11:25 A 11/14/2017 1:20: A 11/14/2017 1:20: 11/14/2017 1:20: 11/14/2017 1:20:	nalyst: CJS 02 AM 34980 nalyst: TOM 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 5:38 AM 34989 5:38 AM 34953 09 PM 34953 09 PM 34953 09 PM 34953 09 PM 34953

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

- Qualifiers: * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix
 - H Holding times for preparation or analysis exceeded
 - ND Not Detected at the Reporting Limit
 - PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analy	vtical	Report	
Allary	ucar	Report	

Lab Order: 1711617

Date Reported: 11/17/2017

CLIENT:GHDProject:TD5				Lab O	rder: 17110	517
Lab ID: 1711617-003			Collection D	ate: 10/	31/2017 11:55:00	AM
Client Sample ID: S-11135250-06-103	117-MG-TP-1	1-4	Mat	trix: SO	IL	
Analyses	Result	PQL Qu	ual Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS					An	alyst: CJS
Chloride	48	30	mg/Kg	20	11/15/2017 2:15:1	5 AM 34980
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS		0.0		An	alyst: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	11/15/2017 11:50:	-
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	11/15/2017 11:50:	
Surr: DNOP	97.6	70-130	%Rec	1	11/15/2017 11:50:	
EPA METHOD 8015D: GASOLINE RAN	GF				An	alyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	11/14/2017 1:43:3	-
Surr: BFB	94.0	15-316	%Rec	1	11/14/2017 1:43:3	
EPA METHOD 8021B: VOLATILES			,	-		alyst: NSB
		0.025	malla	4		-
Benzene Toluene	ND ND	0.025 0.050	mg/Kg	1 1	11/14/2017 1:43:3 11/14/2017 1:43:3	
Ethylbenzene	ND	0.050	mg/Kg mg/Kg	1	11/14/2017 1:43:3	
Xylenes, Total	ND	0.099	mg/Kg	1	11/14/2017 1:43:33	
Surr: 4-Bromofluorobenzene	93.9	80-120	%Rec	1	11/14/2017 1:43:3	
	00.0	00.20				
Lob Do 1711617-004			Collection D	ato: 10/	21/2017 12:25:00	DM
Lab ID: 1711617-004 Client Sample ID: S-11135250-06-103					31/2017 12:35:00 IL	PM
Lab ID: 1711617-004 Client Sample ID: S-11135250-06-103 Analyses		2-4		t rix: SO		PM Batch ID
Client Sample ID: S-11135250-06-103	117-MG-TP-1	2-4	Mat	t rix: SO	IL Date Analyzed	Batch ID
Client Sample ID: S-11135250-06-103 Analyses	117-MG-TP-1	2-4	Mat 1al Units	t rix: SO	IL Date Analyzed	Batch ID alyst: MRA
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride	117-MG-TP-1 Result 1400	2-4 PQL Q 75	Mat	trix: SO DF	IL Date Analyzed Ana 11/15/2017 10:21:	Batch ID alyst: MRA 31 PM 34980
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG	117-MG-TP-1 Result 1400 GE ORGANICS	2-4 PQL Qu 75	Mat 111 Units mg/Kg	trix: SO DF 50	IL Date Analyzed An: 11/15/2017 10:21: An:	Batch ID alyst: MRA 31 PM 34980 alyst: TOM
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO)	117-MG-TP-1 Result 1400 GE ORGANICS ND	2-4 PQL Q 75 9.9	Mat 1 al Units mg/Kg mg/Kg	trix: SO DF 50 1	IL Date Analyzed An: 11/15/2017 10:21: An: 11/15/2017 12:14:	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	117-MG-TP-1 Result 1400 GE ORGANICS ND ND	2-4 PQL Q 75 9.9 49	Mat nal Units mg/Kg mg/Kg mg/Kg	trix: SO DF 50	IL Date Analyzed Ani 11/15/2017 10:21: Ani 11/15/2017 12:14: 11/15/2017 12:14:	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	117-MG-TP-1 Result 1400 GE ORGANICS ND ND 95.9	2-4 PQL Q 75 9.9	Mat 1 al Units mg/Kg mg/Kg	trix: SO DF 50 1 1	IL Date Analyzed An: 11/15/2017 10:21:: An: 11/15/2017 12:14:: 11/15/2017 12:14:: 11/15/2017 12:14::	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN	117-MG-TP-1 Result 1400 GE ORGANICS ND ND 95.9 IGE	2-4 PQL Q 75 9.9 49 70-130	Mat al Units mg/Kg mg/Kg %Rec	trix: SO DF 50 1 1 1	IL Date Analyzed Ana 11/15/2017 10:21:: Ana 11/15/2017 12:14:: 11/15/2017 12:14:: 11/15/2017 12:14:: Ana	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989 alyst: NSB
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	117-MG-TP-1 Result 1400 GE ORGANICS ND ND 95.9	2-4 PQL Q 75 9.9 49	Mat nal Units mg/Kg mg/Kg mg/Kg	trix: SO DF 50 1 1	IL Date Analyzed An: 11/15/2017 10:21:: An: 11/15/2017 12:14:: 11/15/2017 12:14:: 11/15/2017 12:14::	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989 alyst: NSB 4 PM 34953
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB	117-MG-TP-1 Result 1400 GE ORGANICS ND ND 95.9 IGE ND	2-4 PQL Q 75 9.9 49 70-130 4.7	Mat al Units mg/Kg mg/Kg %Rec mg/Kg	trix: SO DF 50 1 1 1 1	IL Date Analyzed An: 11/15/2017 10:21:: An: 11/15/2017 12:14:: 11/15/2017 12:14:: 11/15/2017 12:14:: An: 11/14/2017 2:06:5- 11/14/2017 2:06:5-	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989 33 PM 34989 alyst: NSB 4 PM 34953 4 PM 34953
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES	117-MG-TP-1 Result 1400 GE ORGANICS ND 95.9 IGE ND 92.7	2-4 PQL Q 75 9.9 49 70-130 4.7 15-316	Mat al Units mg/Kg mg/Kg %Rec mg/Kg %Rec	trix: SO DF 50 1 1 1 1 1 1	IL Date Analyzed An: 11/15/2017 10:21: An: 11/15/2017 12:14: 11/15/2017 12:14: 11/15/2017 12:14: An: 11/14/2017 2:06:5 11/14/2017 2:06:5 An:	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989 alyst: NSB 4 PM 34953 4 PM 34953 alyst: NSB
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene	117-MG-TP-1 Result 1400 GE ORGANICS ND 95.9 IGE ND 92.7 ND	2-4 PQL Q 75 9.9 49 70-130 4.7 15-316 0.024	Mat 101 Units mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg %Rec	trix: SO DF 50 1 1 1 1 1 1 1	IL Date Analyzed An: 11/15/2017 10:21: An: 11/15/2017 12:14: 11/15/2017 12:14: 11/15/2017 12:14: An: 11/14/2017 2:06:5 An: 11/14/2017 2:06:5	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989 33 PM 34989 alyst: NSB 4 PM 34953 alyst: NSB 4 PM 34953
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene Toluene	117-MG-TP-1 Result 1400 GE ORGANICS ND 95.9 GE ND 92.7 ND ND ND	2-4 PQL Qu 75 9.9 49 70-130 4.7 15-316 0.024 0.047	Man 2011 2011 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2013 2	trix: SO DF 50 1 1 1 1 1 1 1 1 1	IL Date Analyzed An: 11/15/2017 10:21: An: 11/15/2017 12:14: 11/15/2017 12:14: 11/15/2017 12:14: An: 11/14/2017 2:06:5 An: 11/14/2017 2:06:5 11/14/2017 2:06:5	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989 33 PM 34989 alyst: NSB 4 PM 34953 alyst: NSB 4 PM 34953 4 PM 34953
Client Sample ID: S-11135250-06-103 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene	117-MG-TP-1 Result 1400 GE ORGANICS ND 95.9 IGE ND 92.7 ND	2-4 PQL Q 75 9.9 49 70-130 4.7 15-316 0.024	Mat 101 Units mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg %Rec	trix: SO DF 50 1 1 1 1 1 1 1	IL Date Analyzed An: 11/15/2017 10:21: An: 11/15/2017 12:14: 11/15/2017 12:14: 11/15/2017 12:14: An: 11/14/2017 2:06:5 An: 11/14/2017 2:06:5	Batch ID alyst: MRA 31 PM 34980 alyst: TOM 33 PM 34989 33 PM 34989 33 PM 34989 33 PM 34989 33 PM 34953 4 PM 34953 4 PM 34953 4 PM 34953 4 PM 34953

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

- Qualifiers: * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix
 - H Holding times for preparation or analysis exceeded
 - ND Not Detected at the Reporting Limit
 - PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order: 1711617

Date Reported: 11/17/2017

CLIENT: GHD Project: TD5				Lab O	rder: 171	1617	
Lab ID: 1711617-005			Collection D	Date: 10/	31/2017 2:10:0	0 PM	
Client Sample ID: S-11135250-06-103	117-MG-TP-1	3-4	Ma	trix: SO	IL		
Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	l Ba	tch ID
EPA METHOD 300.0: ANIONS						Analyst:	MRA
Chloride	60	30	mg/Kg	20	11/15/2017 8:29		
EPA METHOD 8015M/D: DIESEL RANG			5. 5			Analyst:	
Diesel Range Organics (DRO)	70	9.6	mg/Kg	1	11/15/2017 12:3	-	
Motor Oil Range Organics (MRO)	ND	9.0 48	mg/Kg	1	11/15/2017 12:3		
Surr: DNOP	106	70-130	%Rec	1	11/15/2017 12:3		
EPA METHOD 8015D: GASOLINE RAN		10 100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	·		Analyst:	
		4.0		4	, 11/14/2017 2:30	-	
Gasoline Range Organics (GRO) Surr: BFB	6.5 138	4.9 15-316	mg/Kg %Rec	1 1	11/14/2017 2:30		
	150	15-510	////ec	I		-	
EPA METHOD 8021B: VOLATILES						Analyst:	
Benzene	ND	0.025	mg/Kg	1	11/14/2017 2:30		
Toluene	ND	0.049	mg/Kg	1	11/14/2017 2:30		
Ethylbenzene	ND	0.049	mg/Kg	1	11/14/2017 2:30):20 PM	34953
-							0 40 50
Xylenes, Total	0.099	0.099	mg/Kg	1	11/14/2017 2:30		
-							
Xylenes, Total	0.099	0.099	mg/Kg %Rec	1 1	11/14/2017 2:30):20 PM	
Xylenes, Total Surr: 4-Bromofluorobenzene	0.099 96.9	0.099 80-120	mg/Kg %Rec Collection D	1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0):20 PM	
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110	0.099 96.9	0.099 80-120	mg/Kg %Rec Collection D Mat	1 1 Date: 11/ trix: SO	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0	0 AM	
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110	0.099 96.9 217-MG-TP-14	0.099 80-120 4-16	mg/Kg %Rec Collection D Mat	1 1 Date: 11/ trix: SO	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed	0 AM	34953 atch ID
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses	0.099 96.9 217-MG-TP-14	0.099 80-120 4-16	mg/Kg %Rec Collection D Mat	1 1 Date: 11/ trix: SO	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed):20 PM 0 AM I Ba Analyst:	34953 atch ID MRA
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS	0.099 96.9 217-MG-TP-14 Result 290	0.099 80-120 4-16 PQL Qu 30	mg/Kg %Rec Collection D Man al Units	1 1 Date: 11/ trix: SO DF	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42	0 AM 0 AM I Ba Analyst: 2:14 PM	34953 ttch ID MRA 35019
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS	0.099 80-120 4-16 PQL Qu 30	mg/Kg %Rec Collection D Man al Units mg/Kg	1 1 Date: 11/ trix: SO DF 20	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42	0 AM 0 AM I Ba Analyst: 2:14 PM	34953 atch ID MRA 35019 TOM
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANC Diesel Range Organics (DRO)	0.099 96.9 217-MG-TP-14 Result 290 GE ORGANICS ND	0.099 80-120 4-16 PQL Qu 30 9.3	mg/Kg %Rec Collection D Mat al Units mg/Kg	1 1 Date: 11/ trix: SO DF 20 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42 / 11/15/2017 1:03	0 AM 0 AM 1 Ba Analyst: 2:14 PM Analyst: 3:30 PM	34953 atch ID MRA 35019 TOM 34989
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS	0.099 80-120 4-16 PQL Qu 30	mg/Kg %Rec Collection D Man al Units mg/Kg	1 1 Date: 11/ trix: SO DF 20	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42	0 AM 0 AM I Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM	34953 ttch ID MRA 35019 TOM 34989 34989
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANC Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS ND ND 103	0.099 80-120 4-16 PQL Qu 30 9.3 47	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg	1 1 Date: 11/ trix: SO DF 20 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed // 11/15/2017 8:42 // 11/15/2017 1:03 11/15/2017 1:03	0 AM B Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM 3:30 PM	34953 atch ID MRA 35019 TOM 34989 34989 34989
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANC Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN	0.099 96.9 217-MG-TP-14 Result 290 GE ORGANICS ND ND 103 GE	0.099 80-120 4-16 PQL Qu 30 9.3 47 70-130	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg %Rec	1 1 Date: 11/ trix: SO DF 20 1 1 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42 / 11/15/2017 1:03 11/15/2017 1:03 / 11/15/2017 1:03	0 AM B Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM 3:30 PM 3:30 PM	34953 ttch ID MRA 35019 TOM 34989 34989 34989 NSB
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANC Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS ND ND 103	0.099 80-120 4-16 PQL Qu 30 9.3 47	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg	1 1 Date: 11/ trix: SO DF 20 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed // 11/15/2017 8:42 // 11/15/2017 1:03 11/15/2017 1:03	0 AM B Ba Analyst: 14 PM Analyst: 3:30 PM 3:30 PM 3:30 PM 3:30 PM 3:30 PM 3:30 PM 3:30 PM	34953 atch ID MRA 35019 TOM 34989 34989 34989 NSB 1 34953
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANC Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS ND ND 103 GE ND	0.099 80-120 4-16 PQL Qu 30 9.3 47 70-130 4.9	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg %Rec mg/Kg	1 1 1 1 1 1 1 1 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42 / 11/15/2017 1:03 11/15/2017 1:03 / 11/15/2017 1:03 / 11/14/2017 11:4	0 AM I Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM 3:30 PM 4:30 PM 4:30 PM 4:30 PM 4:30 PM 4:30 PM 4:30 PM 4:30 PM	34953 atch ID MRA 35019 TOM 34989 34989 34989 84989 84989 84989 84989 84989 84989 84989 84953 84953 84953
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS ND 103 GE ND 115	0.099 80-120 4-16 PQL Qu 30 9.3 47 70-130 4.9 15-316	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg %Rec mg/Kg %Rec	1 1 20 1 20 1 1 1 1 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42 / 11/15/2017 1:03 11/15/2017 1:03 11/15/2017 1:03 / 11/14/2017 11:4	0 AM 0 AM I Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM 3:30 PM 3:30 PM 4:30 PM 4:3	34953 atch ID MRA 35019 TOM 34989 34989 34989 NSB 134953 134953 NSB
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS ND 103 GE ND 115 ND	0.099 80-120 4-16 PQL Qu 30 9.3 47 70-130 4.9 15-316 0.025	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg	1 1 20 1 1 20 1 1 1 1 1 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42 / 11/15/2017 1:03 11/15/2017 1:03 11/15/2017 1:03 / 11/14/2017 11:4 / 11/14/2017 11:4	0 AM 0 AM I Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM 3:30 PM Analyst: 40:32 AM 40:32 AM	34953 atch ID MRA 35019 TOM 34989 34989 34989 NSB 134953 134953 NSB 134953 134953
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene Toluene	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS ND 103 GE ND 115 ND 115 ND	0.099 80-120 4-16 PQL Qu 30 9.3 47 70-130 4.9 15-316 0.025 0.049	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg %Rec	1 1 Date: 11/ trix: SO DF 20 1 1 1 1 1 1 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed // 11/15/2017 8:42 // 11/15/2017 1:03 11/15/2017 1:03 // 11/14/2017 11:4 // 11/14/2017 11:4 // 11/14/2017 11:4	220 PM 0 AM 1 Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM Analyst: 40:32 AM 40:32 AM 40:32 AM 40:32 AM	34953 atch ID MRA 35019 TOM 34989 34989 34989 NSB 434953 434953 NSB 434953 134953 134953 134953
Xylenes, Total Surr: 4-Bromofluorobenzene Lab ID: 1711617-006 Client Sample ID: S-11135250-06-110 Analyses EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene	0.099 96.9 217-MG-TP-14 Result 290 SE ORGANICS ND 103 GE ND 115 ND	0.099 80-120 4-16 PQL Qu 30 9.3 47 70-130 4.9 15-316 0.025	mg/Kg %Rec Collection D Mat al Units mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg	1 1 20 1 1 20 1 1 1 1 1 1 1	11/14/2017 2:30 11/14/2017 2:30 2/2017 10:55:0 IL Date Analyzed / 11/15/2017 8:42 / 11/15/2017 1:03 11/15/2017 1:03 11/15/2017 1:03 / 11/14/2017 11:4 / 11/14/2017 11:4	220 PM 0 AM 1 Ba Analyst: 2:14 PM Analyst: 3:30 PM 3:30 PM 3:30 PM Analyst: 40:32 AM 40:32 AM 40:32 AM 40:32 AM 40:32 AM	34953 atch ID MRA 35019 TOM 34989 34989 34989 NSB 134953 134953 134953 134953 134953 134953 134953

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

- Qualifiers: * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix
 - H Holding times for preparation or analysis exceeded
 - ND Not Detected at the Reporting Limit
 - PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 3 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Lab Order: 1711617

Date Reported: 11/17/2017

CLIENT: GHD Project: TD5					Lab Order: 1711617
Lab ID: 1711617-007			(Collection I	Date: 11/2/2017 2:10:00 PM
Client Sample ID: S-11135250-06-110	217-MG-TP-1	5-20		Ma	atrix: SOIL
Analyses	Result	PQL	Qual	Units	DF Date Analyzed Batch II
EPA METHOD 300.0: ANIONS					Analyst: MRA
Chloride	3000	150		mg/Kg	100 11/17/2017 5:26:55 AM 35019
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS			0 0	Analyst: TOM
Diesel Range Organics (DRO)	990	94		mg/Kg	10 11/15/2017 3:06:08 PM 34989
Motor Oil Range Organics (MRO)	ND	470		mg/Kg mg/Kg	10 11/15/2017 3:06:08 PM 34989
Surr: DNOP	0	70-130		%Rec	10 11/15/2017 3:06:08 PM 34989
EPA METHOD 8015D: GASOLINE RAN		10 100	U	,01100	Analyst: NSB
	-	0.4			•
Gasoline Range Organics (GRO) Surr: BFB	230 355	24 15-316		mg/Kg %Rec	5 11/14/2017 10:09:02 AM 34953 5 11/14/2017 10:09:02 AM 34953
	300	10-310	3	%Rec	
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.12		mg/Kg	5 11/14/2017 10:09:02 AM 34953
Toluene	1.7	0.24		mg/Kg	5 11/14/2017 10:09:02 AM 34953
Ethylbenzene	0.89	0.24		mg/Kg	5 11/14/2017 10:09:02 AM 34953
Xylenes, Total	17	0.48		mg/Kg	5 11/14/2017 10:09:02 AM 34953
Surr: 4-Bromofluorobenzene	132	80-120	S	%Rec	5 11/14/2017 10:09:02 AM 34953
Lab ID: 1711617-008			(Collection I	Date: 11/2/2017 11:15:00 AM
Client Sample ID: S-11135250-06-110	217-MG-TP-1	6-2		Ma	
					atrix: SOIL
Analyses	Result	PQL	Qual	Units	DF Date Analyzed Batch II
Analyses EPA METHOD 300.0: ANIONS	Result	PQL	Qual	Units	
	Result 330	PQL 30	-	Units mg/Kg	DF Date Analyzed Batch II
EPA METHOD 300.0: ANIONS Chloride	330	30	-		DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG	330 SE ORGANICS	30		mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO)	330 SE ORGANICS ND	30		mg/Kg mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	330 SE ORGANICS ND ND	30 10 51		mg/Kg mg/Kg mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989 1 11/15/2017 1:52:44 PM 34989
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	330 E ORGANICS ND ND 104	30		mg/Kg mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN	330 SE ORGANICS ND ND 104 GE	30 10 51 70-130	_	mg/Kg mg/Kg mg/Kg %Rec	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO)	330 SE ORGANICS ND ND 104 GE ND	30 10 51 70-130 4.8	_	mg/Kg mg/Kg %Rec mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989 1 11/15/2017 1:52:44 PM 34985 1 11/14/2017 12:04:19 PM 34955
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB	330 SE ORGANICS ND ND 104 GE	30 10 51 70-130	_	mg/Kg mg/Kg mg/Kg %Rec	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989 1 11/14/2017 12:04:19 PM 34985 1 11/14/2017 12:04:19 PM 34953
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES	330 SE ORGANICS ND ND 104 GE ND 114	30 10 51 70-130 4.8 15-316	_	mg/Kg mg/Kg %Rec mg/Kg %Rec	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989 1 11/15/2017 1:20:41 PM 34985 1 11/14/2017 12:04:19 PM 34953 1 11/14/2017 12:04:19 PM 34953 1 11/14/2017 12:04:19 PM 34953 Analyst: NSB 349453
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene	330 SE ORGANICS ND ND 104 GE ND 114 ND	30 10 51 70-130 4.8 15-316 0.024		mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989 1 11/14/2017 12:04:19 PM 34985 1 11/14/2017 12:04:19 PM 34953 1 11/14/2017 12:04:19 PM 34953 Analyst: NSB 1 1 11/14/2017 12:04:19 PM 34953
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene Toluene	330 E ORGANICS ND 104 GE ND 114 ND ND ND	30 10 51 70-130 4.8 15-316 0.024 0.048		mg/Kg mg/Kg mg/Kg %Rec mg/Kg mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989 1 11/14/2017 12:04:19 PM 34985 1 11/14/2017 12:04:19 PM 34955 1 11/14/2017 12:04:19 PM 34955 1 11/14/2017 12:04:19 PM 34955 1 11/14/2017 12:04:19 PM 34955
EPA METHOD 300.0: ANIONS Chloride EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RAN Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene	330 SE ORGANICS ND ND 104 GE ND 114 ND	30 10 51 70-130 4.8 15-316 0.024		mg/Kg mg/Kg %Rec mg/Kg %Rec mg/Kg	DF Date Analyzed Batch II Analyst: MRA 20 11/15/2017 9:31:53 PM 35019 Analyst: TOM 1 11/15/2017 1:52:44 PM 34989 1 11/14/2017 12:04:19 PM 34985 1 11/14/2017 12:04:19 PM 34953 1 11/14/2017 12:04:19 PM 34953 Analyst: NSB 1 1 11/14/2017 12:04:19 PM 34953

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

- Qualifiers: * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix
 - H Holding times for preparation or analysis exceeded

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 4 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical Report

Lab Order: 1711617

Date Reported: 11/17/2017

CLIENT: GHD Project: TD5				Lab Order: 1711617
Lab ID: 1711617-009			Collection D	Date: 11/2/2017 2:18:00 PM
Client Sample ID: S-11135250-06-1102	217-MG-TP-1	7-4	Ma	trix: SOIL
Analyses	Result	PQL Qu	al Units	DF Date Analyzed Batch
EPA METHOD 300.0: ANIONS				Analyst: MR
Chloride	77	30	mg/Kg	20 11/15/2017 9:44:18 PM 350
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	5		Analyst: TO
Diesel Range Organics (DRO)	11	9.7	mg/Kg	1 11/15/2017 2:17:10 PM 349
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1 11/15/2017 2:17:10 PM 349
Surr: DNOP	104	70-130	%Rec	1 11/15/2017 2:17:10 PM 349
EPA METHOD 8015D: GASOLINE RANG	GE			Analyst: NS
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1 11/14/2017 12:28:04 PM 349
Surr: BFB	115	15-316	%Rec	1 11/14/2017 12:28:04 PM 349
EPA METHOD 8021B: VOLATILES				Analyst: NS
Benzene	ND	0.025	mg/Kg	1 11/14/2017 12:28:04 PM 349
Toluene	ND	0.050	mg/Kg	1 11/14/2017 12:28:04 PM 349
Ethylbenzene	ND	0.050	mg/Kg	1 11/14/2017 12:28:04 PM 349
Xylenes, Total	ND	0.10	mg/Kg	1 11/14/2017 12:28:04 PM 349
Surr: 4-Bromofluorobenzene	115	80-120	%Rec	1 11/14/2017 12:28:04 PM 349
Lab ID: 1711617-010			Collection D	Date: 11/2/2017 2:20:00 PM
Client Sample ID: S-11135250-06-1102	217-MG-TP-1	8-4	Ma	trix: SOIL
Analyses	Result	PQL Qu	al Units	DF Date Analyzed Batch
EPA METHOD 300.0: ANIONS				Analyst: MR
Chloride	ND	30	mg/Kg	20 11/15/2017 9:56:42 PM 350
Chloride EPA METHOD 8015M/D: DIESEL RANG			mg/Kg	20 11/15/2017 9:56:42 PM 350 Analyst: TO
			mg/Kg mg/Kg	
EPA METHOD 8015M/D: DIESEL RANG	E ORGANICS	1		Analyst: TO
EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO)	E ORGANICS ND	9.3	mg/Kg	Analyst: TO 1 11/15/2017 2:41:32 PM 349
EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	E ORGANICS ND ND 100	9.3 47	mg/Kg mg/Kg	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349
EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP	E ORGANICS ND ND 100	9.3 47	mg/Kg mg/Kg	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349
EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG	E ORGANICS ND ND 100 GE	9.3 47 70-130	mg/Kg mg/Kg %Rec	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 Analyst: NS
 EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) 	E ORGANICS ND ND 100 GE ND	9.3 47 70-130 4.9	mg/Kg mg/Kg %Rec mg/Kg	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 Analyst: NS 1 11/14/2017 12:51:50 PM 349
 EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB 	E ORGANICS ND ND 100 GE ND	9.3 47 70-130 4.9	mg/Kg mg/Kg %Rec mg/Kg	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 Analyst: NS 1 11/14/2017 12:51:50 PM 349 1 11/14/2017 12:51:50 PM 349
 EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES 	E ORGANICS ND ND 100 GE ND 115	9.3 47 70-130 4.9 15-316	mg/Kg mg/Kg %Rec mg/Kg %Rec	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 Analyst: NS 1 11/14/2017 12:51:50 PM 349 1 11/14/2017 12:51:50 PM 349 Analyst: NS
 EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene 	E ORGANICS ND ND 100 GE ND 115 ND	9.3 47 70-130 4.9 15-316 0.024	mg/Kg mg/Kg %Rec %Rec mg/Kg	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 Analyst: NS 1 11/14/2017 12:51:50 PM 349 Analyst: NS 1 11/14/2017 12:51:50 PM 349 1 11/14/2017 12:51:50 PM 349
 EPA METHOD 8015M/D: DIESEL RANG Diesel Range Organics (DRO) Motor Oil Range Organics (MRO) Surr: DNOP EPA METHOD 8015D: GASOLINE RANG Gasoline Range Organics (GRO) Surr: BFB EPA METHOD 8021B: VOLATILES Benzene Toluene 	E ORGANICS ND ND 100 SE ND 115 ND ND	9.3 47 70-130 4.9 15-316 0.024 0.049	mg/Kg mg/Kg %Rec mg/Kg mg/Kg mg/Kg	Analyst: TO 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 1 11/15/2017 2:41:32 PM 349 Analyst: NS 1 11/14/2017 12:51:50 PM 349 Analyst: NS 1 11/14/2017 12:51:50 PM 349 1 11/14/2017 12:51:50 PM 349 1 11/14/2017 12:51:50 PM 349

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

- Qualifiers: * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix
 - H Holding times for preparation or analysis exceeded
 - ND Not Detected at the Reporting Limit
 - PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 5 of 9
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc

WO#: 1711617 17-Nov-17

Client:	GHD			
Project:	TD5			
Sample ID	MB-34980	SampType: mblk	TestCode: EPA Method 300.0:	Anions
Client ID:	PBS	Batch ID: 34980	RunNo: 47103	
Prep Date:	11/14/2017	Analysis Date: 11/14/2017	SeqNo: 1503854 Units:	mg/Kg
Analyte			SPK Ref Val %REC LowLimit HighL	Limit %RPD RPDLimit Qual
Chloride		ND 1.5		
Sample ID	LCS-34980	SampType: Ics	TestCode: EPA Method 300.0:	Anions
Client ID:	LCSS	Batch ID: 34980	RunNo: 47103	
Prep Date:	11/14/2017	Analysis Date: 11/14/2017	SeqNo: 1503855 Units:	mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighL	Limit %RPD RPDLimit Qual
Chloride		14 1.5 15.00	0 92.2 90	110
Sample ID	MB-35019	SampType: mblk	TestCode: EPA Method 300.0:	Anions
Client ID:	PBS	Batch ID: 35019	RunNo: 47174	
Prep Date:	11/15/2017	Analysis Date: 11/15/2017	SeqNo: 1504916 Units:	mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighL	Limit %RPD RPDLimit Qual
Chloride		ND 1.5		
Sample ID	LCS-35019	SampType: Ics	TestCode: EPA Method 300.0:	Anions
Client ID:	LCSS	Batch ID: 35019	RunNo: 47174	
Prep Date:	11/15/2017	Analysis Date: 11/15/2017	SeqNo: 1504917 Units:	mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighL	Limit %RPD RPDLimit Qual
Chloride		14 1.5 15.00	0 91.3 90	110

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 6 of 9

GHD

Project:	TD5										
Sample ID	1711617-001AMS	SampT	ype: M	S	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	S-11135250-06-10	30 Batch	n ID: 34	989	F	RunNo: 4	7145		-	-	
Prep Date:	11/14/2017	Analysis D	ate: 1	1/15/2017	S	SeqNo: 1	504203	Units: mg/l	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	73	9.8	48.97	6.067	137	55.8	122			S
Surr: DNOP		4.9		4.897		100	70	130			
Sample ID	1711617-001AMSI	D SampT	уре: М	SD	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	S-11135250-06-10	30 Batch	n ID: 34	989	F	RunNo: 4	7145				
Prep Date:	11/14/2017	Analysis D	ate: 1 '	1/15/2017	5	SeqNo: 1	504204	Units: mg/l	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	56	9.9	49.55	6.067	100	55.8	122	26.7	20	R
Surr: DNOP		4.9		4.955		99.6	70	130	0	0	
Sample ID	LCS-34989	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batch	n ID: 34	989	F	RunNo: 4	7145				
Prep Date:	11/14/2017	Analysis D	ate: 1'	1/15/2017	5	SeqNo: 1	504208	Units: mg/l	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	50	10	50.00	0	101	73.2	114			
Surr: DNOP		4.8		5.000		95.7	70	130			
Sample ID	MB-34989	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batch	n ID: 34	989	F	RunNo: 4	7145				
Prep Date:	11/14/2017	Analysis D	ate: 1	1/15/2017	S	SeqNo: 1	504209	Units: mg/l	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range O	rganics (DRO)	ND	10								
Motor Oil Range Surr: DNOP	e Organics (MRO)	ND 11	50	10.00		105	70	130			

Qualifiers:

Client:

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- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 7 of 9

GHD

Project: TD5 Sample ID MB-34953 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 34953 RunNo: 47109 Prep Date: 11/13/2017 Analysis Date: 11/14/2017 SeqNo: 1503518 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 980 1000 97.6 15 316 TestCode: EPA Method 8015D: Gasoline Range Sample ID LCS-34953 SampType: LCS Client ID: LCSS Batch ID: 34953 RunNo: 47109 Prep Date: 11/13/2017 Analysis Date: 11/14/2017 SeqNo: 1503519 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) 26 5.0 25.00 0 103 75.9 131 1100 1000 109 Surr: BFB 15 316

Qualifiers:

Client:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 8 of 9

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

Client: Project:	GHD TD5										
Sample ID	MB-34953	Samp	Гуре: МЕ	BLK	Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBS	Batc	h ID: 34	953	F	RunNo: 47109					
Prep Date:	11/13/2017	Analysis [Date: 11	/14/2017	S	eqNo: 1	503543	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025			/orceo	LOWLINI	riigneinne	701XI D		Quai
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
-	nofluorobenzene	0.99		1.000		98.6	80	120			
Sample ID	LCS-34953	Samp	Гуре: LC	S	Tes	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	F	RunNo: 47	7109							
Prep Date:	11/13/2017	Analysis [Date: 11	/14/2017	S	eqNo: 1	503544	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.92	0.025	1.000	0	92.1	77.3	128			
Toluene		0.94	0.050	1.000	0	93.8	79.2	125			
Ethylbenzene		0.95	0.050	1.000	0	95.4	80.7	127			
Xylenes, Total		2.9	0.10	3.000	0	96.6	81.6	129			
Surr: 4-Brom	nofluorobenzene	0.99		1.000		98.5	80	120			
Sample ID	1711617-001AM	Samp ⁻	Гуре: МS	6	Tes	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	S-11135250-06-	1030 Batc	h ID: 34	953	F	RunNo: 47	7109				
Prep Date:	11/13/2017	Analysis [Date: 11	/14/2017	S	eqNo: 1	503546	Units: mg/k	٨g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.024	0.9747	0	102	80.9	132			Н
Toluene		1.0	0.049	0.9747	0.006654	105	79.8	136			Н
Ethylbenzene		1.1	0.049	0.9747	0	110	79.4	140			Н
Xylenes, Total		3.2	0.097	2.924	0	110	78.5	142			Н
Surr: 4-Brom	nofluorobenzene	0.91		0.9747		93.2	80	120			Н
Sample ID	1711617-001AM	SD Samp	Гуре: МS	SD	Tes	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	S-11135250-06-	1030 Batc	h ID: 34	953	F	RunNo: 47	7109				
Prep Date:	11/13/2017	Analysis [Date: 11	/14/2017	5	SeqNo: 1	503547	Units: mg/k	٢g		
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.024	0.9766	0	106	80.9	132	3.83	20	Н
Toluene		1.1	0.049	0.9766	0.006654	110	79.8	136	5.00	20	Н
Ethylbenzene		1.1	0.049	0.9766	0	113	79.4	140	3.12	20	н
Xylenes, Total		3.4	0.098	2.930	0	115	78.5	142	4.21	20	Н
	nofluorobenzene	0.92		0.9766		94.1	80	120	0	0	Н

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 9 of 9

HALL ENVIRONMENTAL ANALYSIS LABORATORY	TEL: 505-345-3	ntal Analysis Labord 4901 Hawkin Albuquerque, NM 8 1975 FAX: 505-345- w.hallenvironmental	s NE 7109 Sam 4107	Sample Log-In Check List							
Client Name: GHD	Work Order Num	ber: 1711617		RcptNo: 1							
Received By: Dennis Suazo	11/10/2017 10:00:0	00 AM									
Completed By: Isaiah Ortiz	11/10/2017 11:50:1 11/11/2017 11:50:1	16 AM	IGh	-							
Reviewed By:	14/0/17										
Chain of Custody											
1. Custody seals intact on sample bottles?		Yes 🗌	No 🗌	Not Present 🗹							
2. Is Chain of Custody complete?		Yes 🗹	No 🗌	Not Present							
3. How was the sample delivered?		<u>Courier</u>									
<u>Log In</u>											
4. Was an attempt made to cool the sample	es?	Yes 🗹	No 🗌								
5. Were all samples received at a temperat	ure of >0° C to 6.0°C	Yes 🗹	No 🗌								
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌								
7. Sufficient sample volume for indicated te	st(s)?	Yes 🔽	No 🗌								
8. Are samples (except VOA and ONG) pro	perly preserved?	Yes 🔽	No 🗌								
9. Was preservative added to bottles?		Yes	No 🗹								
10.VOA vials have zero headspace?		Yes 🗌	No 🗌	No VOA Vials 🗹							
11. Were any sample containers received br	oken?	Yes	No 🔽	# of preserved bottles checked							
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🔽	No 🗌	for pH: (<2 or >12 unle	ess noted)						
13. Are matrices correctly identified on Chain	of Custody?	Yes 🗹	No 🗌	Adjusted?							
14. Is it clear what analyses were requested?	•	Yes 🗹	No 🗌								
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗌	Checked by:							
Special Handling (if applicable)											
16. Was client notified of all discrepancies wi	th this order?	Yes 🗌	No 🗆	NA 🗹							

Person Notified:	Date:
By Whom:	Via: eMail Phone Fax In Person
Regarding:	
Client Instructions:	

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17. Additional remarks:

18. Cooler Information

Coole	r No Temp °	C Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.6	Good	Yes			
	2.0		168	i 		

Page 1	of 1
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	HALL ENVIKONMEN IAL ANALYSTS I ABORATORY	www hallenvironmental com	4901 Hawkins NE - Albuquerque, NM 87109	Tel. 505-345-3975 Fax 505-345-4107	Analysis Request	⁺OS	ьсв ьО ⁴ '	(1.1 ((2808 (2002 (1.1 (1.1 (1.1) (1.1) ((1.1) (1.1) (1.1) ((1.1) ((1.1)) (((1.1)) ((((((((((((((((((07 8 315 315 315 315 315 315 315 315 315 315	PH (Methoc DB (Methoc AH's (8310 270 (Semi-/ 270 (Semi-/ 270 (Semi-/		X			X	X			X		g				her accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
			1901 H	Tel. 50						атм + хэт.) астов ня		\times	\times	X	Х	X	\times	\times	\times	X			rks:		/. Any su
			ম	. •				Hdi Taivi		37101 + X∃T. 8TM + X∃T.	<u> </u>	X	X	\times	X		Х	\times	\times	\times			Remarks:		oossibility
							bockisch	Gant	SIA INTRATIC		8-	ද ග <u>-</u>	-00 3	ן -00 ש	-00 5	9 8 - 9	- mu'i	-009	-69 -	-010-			11 1/1/17 CB320	Date Time	es. This serves as notice of this p
Turn-Around Time:	□ Standard □ Rush	Project Name:	201	Project #: 111≺ E 0 C ⊙ _ ∩ /	90,0000011	Project Manager:	Bernard Bo	sampler: Michael	Oli Ice. 🔄 Tes. Sample Temperature 7		402Saltar TCE											(Repeived by/	Red by:	tracted to other accredited laboratoric
ecord	client CHDS enrices Inc.	-	121 Indianschool Rol Ste 200	OILLS WW STILD	884 0672	ETTIAL OF ANACA DOCKOCHUCOM	Level 4 (Full Validation)	Oihar		Matrix Sample Request ID	5-113525006-103511-46-76-7-2	5-11185350-06-103112416-7P.10-4	1-11-21-211-511-51-10-212-52111-5	H-EI-01-7114211501-70-05858111-5	5-11135260-06-103117.M6-78-13-4'	SHIBS350-06-16217416-TP-14-16	S-1175,250-06-110,217.116-TP-15-20	E-41-91-214-011-90-0555811-2	2-11-11-11-11-11-11-11-11-11-11-11-11-11	S-1175-250-06-112217. METP-18-4			Relinquished by:	Alled by A	If necessary, samples ubmitted to Hall Environmental may be subcontracted to ot
hain-of	HDS		Mailing Address: んしい	Ibugber			ackage: lard			J	S OHEI	1050	1 5511	1235	410	1055	1410	1115	1418	1420	 		h 630	Time: Relinq	iecessary, samp
ΰ	Client:		Mailing /	NEA	Phone #:		QA/QC Package:	Accreditation		Date	10/20/17/2210	10/51/11/1050	10/21/17		16/31/17/1410	Maliz	Walin 1	1/2/17	ulali7 1	Malin	1			It Date: 1 It (9(7)	- -

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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

January 15, 2018 Bernie Bockisch GHD 6121 Indian School Road, NE #200 Albuquerque, NM 87110 TEL: (505) 884-0672 FAX

OrderNo.: 1712E28

Dear Bernie Bockisch:

RE: TD 5

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/23/2017 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

	GHD YD 5					Lab	Or	rder: 1712	E28	
Lab ID:	1712E28-001			С	ollection	Date: 1	12/2	21/2017 3:50:00]	PM	
Client Sample ID:	S-1113525006-12211	7-JP-SB-1-25			Μ	latrix: S	SOI	L		
Analyses		Result	PQL	Qual 1	Units	D)F]	Date Analyzed	Ba	tch ID
EPA METHOD 300	.0: ANIONS							An	alyst:	MRA
Chloride		42	30		mg/Kg	2	20	1/11/2018 9:52:56	AM	35914
EPA METHOD 802	1B: VOLATILES							An	alyst:	NSB
Benzene		ND	0.023		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Toluene		ND	0.046		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Ethylbenzene		ND	0.046		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Xylenes, Total		ND	0.092		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Surr: 4-Bromoflue	probenzene	100	80-120		%Rec	1	1	12/28/2017 12:40:	52 PN	1 35713
Lab ID:	1712E28-002			С	ollection	Date: 1	12/2	21/2017 3:55:00 1	PM	
Client Sample ID:	S-1113525006-12211	7-JP-SB-1-30			Μ	latrix: S	SOI	L		
Analyses		Result	PQL	Qual 1	Units	D	F]	Date Analyzed	Ba	tch ID
EPA METHOD 300	.0: ANIONS							An	alyst:	MRA
Chloride		ND	30		mg/Kg	2	20	1/11/2018 10:05:2	1 AM	35914
EPA METHOD 802	1B: VOLATILES							An	alyst:	NSB
Benzene		ND	0.024		mg/Kg	1	1	12/29/2017 2:44:1	-	
Toluene		ND	0.048		mg/Kg	1		12/29/2017 2:44:1		
Ethylbenzene		ND	0.048		mg/Kg	1	I	12/29/2017 2:44:1	6 AM	35713
Xylenes, Total		ND	0.095		mg/Kg	1	l	12/29/2017 2:44:1	6 AM	35713
Surr: 4-Bromoflue	probenzene	89.6	80-120		%Rec	1	1	12/29/2017 2:44:1	6 AM	35713
Lab ID:	1712E28-003			C	ollection	Date: 1	2/2	21/2017 4:00:00 1	PM	
Client Sample ID:	S-1113525006-12211	7-JP-SB-1-35			Μ	latrix: S	SOI	L		
Analyses		Result	PQL	Qual 1	Units	D)F]	Date Analyzed	Ba	tch ID
EPA METHOD 300	.0: ANIONS							An	alyst:	MRA
Chloride		35	30		mg/Kg	2	20	1/11/2018 10:17:4	6 AM	35914
EPA METHOD 802	1B: VOLATILES							An	alvst:	NSB
Benzene	-	ND	0.024		mg/Kg	1	1	12/29/2017 3:07:2	-	
Toluene		ND	0.048		mg/Kg		1	12/29/2017 3:07:2		
Ethylbenzene		ND	0.048		mg/Kg			12/29/2017 3:07:2		
Xylenes, Total		ND	0.096		mg/Kg	1	I	12/29/2017 3:07:2		

- Qualifiers: * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix
 - H Holding times for preparation or analysis exceeded
 - ND Not Detected at the Reporting Limit
 - PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 4

Analytical Report Lab Order: 1712E28

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical F	Report
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Lab Order: 1712E28

Date Reported: 1/15/2018

12/29/2017 3:30:40 AM 35713

CLIENT: Project:	GHD TD 5				Lab Order:	1712E2	28
Lab ID: Client Sample ID	1712E28-004 : S-1113525006-12211	17-JP-SB-1-40			Date: 12/21/2017 trix: SOIL	4:05:00 Pl	М
Analyses		Result	PQL Qual	Units	DF Date A	nalyzed	Batch ID
EPA METHOD 30	00.0: ANIONS					Anal	yst: MRA
Chloride		ND	30	mg/Kg	20 1/11/20	18 10:30:11	AM 35914
EPA METHOD 80	21B: VOLATILES					Anal	yst: NSB
Benzene		ND	0.024	mg/Kg	1 12/29/20	017 3:30:40	AM 35713
Toluene		ND	0.047	mg/Kg	1 12/29/20	017 3:30:40	AM 35713
Ethylbenzene		ND	0.047	mg/Kg	1 12/29/20	017 3:30:40	AM 35713
Xylenes, Total		ND	0.095	mg/Kg	1 12/29/20	017 3:30:40	AM 35713

80-120

%Rec

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Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

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

Qualifiers:

*

- Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 4
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Client:GHDProject:TD 5

Sample ID MB-35914	SampType: mblk	TestCode: EPA Method	l 300.0: Anions		
Client ID: PBS	Batch ID: 35914	RunNo: 48339			
Prep Date: 1/8/2018	Analysis Date: 1/9/2018	SeqNo: 1552593	Units: mg/Kg		
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Chloride	ND 1.5				
Chloride Sample ID LCS-35914	ND 1.5 SampType: Ics	TestCode: EPA Method	l 300.0: Anions		
Sample ID LCS-35914		TestCode: EPA Method RunNo: 48339	l 300.0: Anions		
Sample ID LCS-35914	SampType: Ics		I 300.0: Anions Units: mg/Kg		
Sample ID LCS-35914 Client ID: LCSS	SampType: Ics Batch ID: 35914 Analysis Date: 1/9/2018	RunNo: 48339	Units: mg/Kg	RPDLimit	Qual

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 3 of 4

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

Client: Project:	GHD TD 5										
Sample ID	MB-35713	SampT	ype: ME	BLK	Test	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batcl	h ID: 357	713	R	anNo: 48	8084				
Prep Date:	12/26/2017	Analysis D	Date: 12	2/28/2017	S	eqNo: 1	541267	Units: mg/k	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025	0		/01.120	201121111		, or a 2		4.6.6.
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	0.96		1.000		96.4	80	120			
Sample ID	LCS-35713	SampT	ype: LC	S	Test	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batcl	h ID: 357	713	R	anNo: 48	8084				
Prep Date:	12/26/2017	Analysis D	Date: 12	2/28/2017	S	eqNo: 1	541268	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.85	0.025	1.000	0	85.2	77.3	128			
Toluene		0.87	0.050	1.000	0	86.6	79.2	125			
Ethylbenzene		0.86	0.050	1.000	0	85.6	80.7	127			
, · · ·											
-		2.6	0.10	3.000	0	87.7	81.6	129			
Xylenes, Total	nofluorobenzene	2.6 0.96	0.10	3.000 1.000	0	87.7 96.2	81.6 80	129 120			
Xylenes, Total Surr: 4-Brom	nofluorobenzene 1712E28-001AM	0.96	0.10 Type: MS	1.000		96.2	80		iles		
Xylenes, Total Surr: 4-Brom Sample ID		0.96		1.000	Test	96.2	80 PA Method	120	iles		
Xylenes, Total Surr: 4-Brom Sample ID Client ID:	1712E28-001AM	0.96	ype: MS	1.000 5 713	Tesi	96.2 tCode: EF	80 PA Method 8084	120			
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date:	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl	ype: MS	1.000 5 713 2/28/2017	Tesi	96.2 tCode: EF tunNo: 48 SeqNo: 1	80 PA Method 8084	120 8021B: Volat		RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D	ype: MS n ID: 35 Date: 12	1.000 5 713 2/28/2017	Test R S	96.2 tCode: EF tunNo: 48 SeqNo: 1	80 PA Method 8084 541272	120 8021B: Volat Units: mg/K	g	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D Result	ype: MS h ID: 35 Date: 12 PQL	1.000 5 713 2/28/2017 SPK value	Test R S SPK Ref Val	96.2 tCode: EF RunNo: 44 SeqNo: 14 %REC	80 PA Method 8084 541272 LowLimit	120 8021B: Volat Units: mg/K HighLimit	g	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D Result 0.90	ype: MS h ID: 35 Date: 12 PQL 0.024	1.000 5 713 2/28/2017 SPK value 0.9766	Tesi R SPK Ref Val 0	96.2 tCode: EF RunNo: 48 GeqNo: 18 %REC 91.7	80 PA Method 8084 541272 LowLimit 80.9	120 8021B: Volat Units: mg/K HighLimit 132	g	RPDLimit	Qual
(ylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene (ylenes, Total	1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93	Type: MS n ID: 357 Date: 12 PQL 0.024 0.049	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766	Tesi R SPK Ref Val 0 0.008732	96.2 tCode: EF RunNo: 48 SeqNo: 19 %REC 91.7 94.7	80 PA Method 8084 541272 LowLimit 80.9 79.8	120 8021B: Volat Units: mg/k HighLimit 132 136	g	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total	1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis D <u>Result</u> 0.90 0.93 0.95	ype: MS n ID: 35 Date: 12 PQL 0.024 0.049 0.049	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 0.9766	Tesi R S SPK Ref Val 0 0.008732 0	96.2 tCode: EF 2unNo: 44 SeqNo: 15 %REC 91.7 94.7 97.3	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.8 79.4	120 8021B: Volat Units: mg/k HighLimit 132 136 140	g	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis E Result 0.90 0.93 0.95 2.9 0.92	ype: MS n ID: 35 Date: 12 PQL 0.024 0.049 0.049	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766	Test R S SPK Ref Val 0 0.008732 0 0 0	96.2 tCode: EF kunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 98.7 94.5	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142	g %RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93 0.95 2.9 0.92 ISD SampT	ype: MS n ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.098	1.000 3 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 30 50	Tesi R SPK Ref Val 0 0.008732 0 0 0	96.2 tCode: EF kunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 98.7 94.5	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80 PA Method	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120	g %RPD	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID:	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93 0.95 2.9 0.92 ISD SampT	ype: MS n ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.098	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 0.9766 2.930 0.9766 5D 713	Tesi R SPK Ref Val 0 0.008732 0 0 0 Tesi R	96.2 tCode: EF RunNo: 48 SeqNo: 19 %REC 91.7 94.7 97.3 98.7 94.5 tCode: EF	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80 PA Method 8084	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120	g %RPD iles	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date:	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis D Result	ype: MS b ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.049 0.098	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 0.9766 2.930 0.9766 50 713 2/28/2017 SPK value	Tesi R SPK Ref Val 0 0.008732 0 0 0 Tesi R	96.2 tCode: EF 2unNo: 44 3eqNo: 19 36 91.7 91.7 91.7 91.7 97.3 98.7 94.5 tCode: EF 2unNo: 44 3eqNo: 19 3eqNo: 19	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80 PA Method 8084 541273 LowLimit	120 8021B: Volat Units: mg/K HighLimit 132 136 140 142 120 8021B: Volat Units: mg/K HighLimit	g %RPD iles g %RPD	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis E Result 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis E Result 0.90	Type: MS on ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.098 Type: MS on ID: 35 Date: 12 PQL 0.024	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 2.930 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.9555 2.9555 2.9555 2.9555 2.9555 2.9555 2.9555 2.9555	Test R SPK Ref Val 0 0.008732 0 0 0 Test R SPK Ref Val 0	96.2 tCode: EF 2unNo: 44 3eqNo: 19 3REC 91.7 94.7 97.3 98.7 94.5 tCode: EF 2unNo: 44 3eqNo: 19 3eqNo: 19 3eqNo: 19 3eqNo: 19 3eqNo: 19	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.8 79.4 78.5 80 PA Method 8084 541273 LowLimit 80.9	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132	iles %RPD 0.135	RPDLimit 20	
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis D Result	Type: MS n ID: 35 Date: 12 0.024 0.024 0.049 0.049 0.049 0.098 Type: MS n ID: 35 Date: 12 PQL 0.024 0.024 0.024	1.000 713 2/28/2017 SPK value 0.9766 0.9766 0.9766 2.930 0.9766 2.930 0.9766 5D 713 2/28/2017 SPK value 0.9653 0.9653 0.9653	Tesi SPK Ref Val 0 0.008732 0 0 0 Tesi R SPK Ref Val	96.2 tCode: EF tunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 94.7 94.5 tCode: EF tunNo: 44 SeqNo: 15 SeqNo: 15 %REC 92.9 95.3	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 79.4 79.5 80 PA Method 8084 541273 LowLimit 80.9 79.8	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132 136	iles %RPD iles 6 g 0.135 0.540	RPDLimit 20 20	
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis D Result 0.90 0.93 0.93 0.94	Type: MS n ID: 357 Date: 12 0.024 0.049 0.049 0.049 0.098 Type: MS n ID: 357 Date: 12 PQL 0.024 0.024 0.048 0.048	1.000 713 2/28/2017 SPK value 0.9766 0.9766 0.9766 2.930 0.9766 2.930 0.9766 5D 713 2/28/2017 SPK value 0.9653 0.9653 0.9653	Test R SPK Ref Val 0 0.008732 0 0 0 Test R SPK Ref Val 0	96.2 tCode: EF anNo: 44 %REC 91.7 94.7 97.3 98.7 94.5 tCode: EF anNo: 44 SeqNo: 15 %REC 92.9 95.3 97.5	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.8 79.4 78.5 80 PA Method 8084 541273 LowLimit 80.9	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132	iles %RPD 0.135	RPDLimit 20	
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID:	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis E Result 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis E Result 0.90 0.93	Type: MS n ID: 35 Date: 12 0.024 0.024 0.049 0.049 0.049 0.098 Type: MS n ID: 35 Date: 12 PQL 0.024 0.024 0.024	1.000 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 3.9766 2.930 0.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.97766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.97666 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.	Test R S SPK Ref Val 0 0.008732 0 0 0 Test S SPK Ref Val 0 0.008732	96.2 tCode: EF tunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 94.7 94.5 tCode: EF tunNo: 44 SeqNo: 15 SeqNo: 15 %REC 92.9 95.3	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 79.4 79.5 80 PA Method 8084 541273 LowLimit 80.9 79.8	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132 136	iles %RPD iles 6 g 0.135 0.540	RPDLimit 20 20	

Qualifiers:

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

Page 4 of 4

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Analysis Labor 4901 Hawkin Albuquerque, NM 8 TEL: 505-345-3975 FAX: 505-345- Website: www.hallenvironmenta	Sample Log-In Check List
Client Name: GHD	Work Order Number: 1712E28	RcptNo: 1
Received By: Andy Freeman Completed By: Michelle Garcia Reviewed By: DDS/	12/23/2017 8:30:00 AM 12/26/2017 10:46:00 AM $1 \supset 2 / \supset \Box / 17$	- Micross Garcies
Chain of Custody		
1. Custody seals intact on sample bottles?	Yes 🗌	No 🗌 Not Present 🗹
2. Is Chain of Custody complete?	Yes 🔽	No 🗌 Not Present 🗌

Received By: Andy Freeman	12/23/2017 8:30:00 AM	andy	
Completed By: Michelle Garcia	12/26/2017 10:46:00 AM	-Minus Gan	ue
Reviewed By: DDSfmg	12/24/17		
Chain of Custody			
1. Custody seals intact on sample bottles	i? Yes 🗌	No 🗆	Not Present 🗹
2. Is Chain of Custody complete?	Yes 🗹	No 🗌	Not Present
3. How was the sample delivered?	Courier		
Log In			
4. Was an attempt made to cool the same	nples? Yes 🗹	No 🗆	NA \square

Yes 🗸

Yes ¥

Yes V

Yes V

Yes 🗌

Yes 🗌 Yes

Yes 🗸

Yes 🖌

Yes 🖌

Yes 🗸

No 🗌

No 🗌

No No

No ¥

No

No 🗸

No

No 🗌

No

No 🗌

NA 🗌

NA 🗌

(<2 or >12 unless noted)

No VOA Viais V

Adjusted?

Checked by:

of preserved bottles checked for pH:

Log In

5. Were all samples received at a temperature of >0° C to 6.0°C

6. Sample(s) in proper container(s)?

10. VOA vials have zero headspace?

7.	Sufficient sample volume for indicated test(s)?
8	Are samples (excent VOA and ONG) properly preserved

Q	
9. Was preservative added to bottles?	

					-	
11.	Were	any	sample	containers	received	broken?

12.1	Does paperwork match bottle labels?
(Note discrepancies on chain of custody)
13./	Are matrices correctly identified on Chain of Custody?

14. Is it clear what analyses were requested?

15. Were all holding times able to be met? (If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?		Yes	_ N	la 🗌	NA 🗹
Person Notified: By Whom:	Date Via:	eMail	Phone	Fax	🗌 In Person
Regarding: Client Instructions:					

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

Page	1	of	1
0			

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	HALL ENVIRONMENTAL ANALYSTS LABORATORY		g	2						0'	005		داريد: كر	5	>	>	2	
	MNG		environmental.com Albuquerque NM 87109		505-345-4107	st					()		/-ime2) 0728					
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Time:	C Rush		05		che.	11 35220-06	ger.	LI P L'SCL			∆ Yes	1 :	Preservative Type	ICE	19	м	.1	
Turn-Around Time:	d Standard	Project Name:	01	Project #:		111	Project Mana	A	PERMACA	Sampler:	On loe:			4-25:1J.c	*	er.		Received by:
Chain-of-Custody Record	3		Mailing Address: 6121 Ind. on School Rund	- MLD W	Cry un S (110	884-0672	Bernard, Bekisch Ogud. con Project Manager.	,	Level 4 (Full Validation)				Sample Request ID	1:5-1-122-1306-1221-905-252111-5	5-11135250-06-122117-3P58-4-30	5-11-35-25-05-12-217-38-1-38	04-1-85-26-11271-30-05256 III-5	
of-CL	GHD services		6121 I	VC N	U Z	1	Berne				D Other		Matrix	S	S	٢	S	K ast S age
hain-	GHD		Address	DV CC C		#: (SoS)	Fax#:	QA/QC Package:	dard	tation	AP	(Type)	Time	1550	1555	1600	1605	
0	Client:		Mailing	() 40	1120	Phone #:	email or Fax#:	QA/QC F	Standard	Accreditation	O NELAP	D EDD (Type)	Date	12/21	(2/2)	12/21	12/21	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

January 15, 2018 Bernie Bockisch GHD 6121 Indian School Road, NE #200 Albuquerque, NM 87110 TEL: (505) 884-0672 FAX

OrderNo.: 1712E28

Dear Bernie Bockisch:

RE: TD 5

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/23/2017 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

	GHD YD 5					Lab	Or	rder: 1712	E28	
Lab ID:	1712E28-001			С	ollection	Date: 1	12/2	21/2017 3:50:00]	PM	
Client Sample ID:	S-1113525006-12211	7-JP-SB-1-25			Μ	latrix: S	SOI	L		
Analyses		Result	PQL	Qual 1	Units	D)F]	Date Analyzed	Ba	tch ID
EPA METHOD 300	.0: ANIONS							An	alyst:	MRA
Chloride		42	30		mg/Kg	2	20	1/11/2018 9:52:56	AM	35914
EPA METHOD 802	1B: VOLATILES							An	alyst:	NSB
Benzene		ND	0.023		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Toluene		ND	0.046		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Ethylbenzene		ND	0.046		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Xylenes, Total		ND	0.092		mg/Kg	1	I	12/28/2017 12:40:	52 PN	1 35713
Surr: 4-Bromoflue	probenzene	100	80-120		%Rec	1	1	12/28/2017 12:40:	52 PN	1 35713
Lab ID:	1712E28-002			С	ollection	Date: 1	12/2	21/2017 3:55:00 1	PM	
Client Sample ID:	S-1113525006-12211	7-JP-SB-1-30			Μ	latrix: S	SOI	L		
Analyses		Result	PQL	Qual 1	Units	D	F]	Date Analyzed	Ba	tch ID
EPA METHOD 300	.0: ANIONS							An	alyst:	MRA
Chloride		ND	30		mg/Kg	2	20	1/11/2018 10:05:2	1 AM	35914
EPA METHOD 802	1B: VOLATILES							An	alyst:	NSB
Benzene		ND	0.024		mg/Kg	1	1	12/29/2017 2:44:1	-	
Toluene		ND	0.048		mg/Kg	1		12/29/2017 2:44:1		
Ethylbenzene		ND	0.048		mg/Kg	1	I	12/29/2017 2:44:1	6 AM	35713
Xylenes, Total		ND	0.095		mg/Kg	1]	12/29/2017 2:44:1	6 AM	35713
Surr: 4-Bromoflue	probenzene	89.6	80-120		%Rec	1	1	12/29/2017 2:44:1	6 AM	35713
Lab ID:	1712E28-003			C	ollection	Date: 1	2/2	21/2017 4:00:00 1	PM	
Client Sample ID:	S-1113525006-12211	7-JP-SB-1-35			Μ	latrix: S	SOI	L		
Analyses		Result	PQL	Qual 1	Units	D)F]	Date Analyzed	Ba	tch ID
EPA METHOD 300	.0: ANIONS							An	alyst:	MRA
Chloride		35	30		mg/Kg	2	20	1/11/2018 10:17:4	6 AM	35914
EPA METHOD 802	1B: VOLATILES							An	alvst:	NSB
Benzene	-	ND	0.024		mg/Kg	1	1	12/29/2017 3:07:2	-	
Toluene		ND	0.048		mg/Kg		1	12/29/2017 3:07:2		
Ethylbenzene		ND	0.048		mg/Kg			12/29/2017 3:07:2		
Xylenes, Total		ND	0.096		mg/Kg	1	I	12/29/2017 3:07:2		

- Qualifiers: * Value exceeds Maximum Contaminant Level.
 - D Sample Diluted Due to Matrix
 - H Holding times for preparation or analysis exceeded
 - ND Not Detected at the Reporting Limit
 - PQL Practical Quanitative Limit
 - S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 4

Analytical Report Lab Order: 1712E28

- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Analytical F	Report
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Lab Order: 1712E28

Date Reported: 1/15/2018

12/29/2017 3:30:40 AM 35713

CLIENT: Project:	GHD TD 5				Lab Order:	1712E2	28
Lab ID: Client Sample ID	1712E28-004 : S-1113525006-12211	17-JP-SB-1-40			Date: 12/21/2017 trix: SOIL	4:05:00 Pl	М
Analyses		Result	PQL Qual	Units	DF Date A	nalyzed	Batch ID
EPA METHOD 30	00.0: ANIONS					Anal	yst: MRA
Chloride		ND	30	mg/Kg	20 1/11/20	18 10:30:11	AM 35914
EPA METHOD 80	21B: VOLATILES					Anal	yst: NSB
Benzene		ND	0.024	mg/Kg	1 12/29/20	017 3:30:40	AM 35713
Toluene		ND	0.047	mg/Kg	1 12/29/20	017 3:30:40	AM 35713
Ethylbenzene		ND	0.047	mg/Kg	1 12/29/20	017 3:30:40	AM 35713
Xylenes, Total		ND	0.095	mg/Kg	1 12/29/20	017 3:30:40	AM 35713

80-120

%Rec

1

89.1

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

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

Qualifiers:

*

- Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 4
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Client:GHDProject:TD 5

Sample ID MB-35914	SampType: mblk	TestCode: EPA Method	l 300.0: Anions		
Client ID: PBS	Batch ID: 35914	RunNo: 48339			
Prep Date: 1/8/2018	Analysis Date: 1/9/2018	SeqNo: 1552593	Units: mg/Kg		
Analyte	Result PQL SPK value	e SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit	Qual
Chloride	ND 1.5				
Chloride Sample ID LCS-35914	ND 1.5 SampType: Ics	TestCode: EPA Method	l 300.0: Anions		
Sample ID LCS-35914		TestCode: EPA Method RunNo: 48339	l 300.0: Anions		
Sample ID LCS-35914	SampType: Ics		I 300.0: Anions Units: mg/Kg		
Sample ID LCS-35914 Client ID: LCSS	SampType: Ics Batch ID: 35914 Analysis Date: 1/9/2018	RunNo: 48339	Units: mg/Kg	RPDLimit	Qual

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 3 of 4

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

Client: Project:	GHD TD 5										
Sample ID	MB-35713	SampT	ype: ME	BLK	Test	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	PBS	Batcl	h ID: 357	713	R	anNo: 48	8084				
Prep Date:	12/26/2017	Analysis D	Date: 12	2/28/2017	S	eqNo: 1	541267	Units: mg/k	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	0.025	0		/01.120	201121111		, or a 2		4.6.6.
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	0.96		1.000		96.4	80	120			
Sample ID	LCS-35713	SampT	ype: LC	S	Test	tCode: EF	PA Method	8021B: Volat	iles		
Client ID:	LCSS	Batcl	h ID: 357	713	R	anNo: 48	8084				
Prep Date:	12/26/2017	Analysis D	Date: 12	2/28/2017	S	eqNo: 1	541268	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.85	0.025	1.000	0	85.2	77.3	128			
Toluene		0.87	0.050	1.000	0	86.6	79.2	125			
Ethylbenzene		0.86	0.050	1.000	0	85.6	80.7	127			
, · · ·											
-		2.6	0.10	3.000	0	87.7	81.6	129			
Xylenes, Total	nofluorobenzene	2.6 0.96	0.10	3.000 1.000	0	87.7 96.2	81.6 80	129 120			
Xylenes, Total Surr: 4-Brom	nofluorobenzene 1712E28-001AM	0.96	0.10 Type: MS	1.000		96.2	80		iles		
Xylenes, Total Surr: 4-Brom Sample ID		0.96		1.000	Test	96.2	80 PA Method	120	iles		
Xylenes, Total Surr: 4-Brom Sample ID Client ID:	1712E28-001AM	0.96	ype: MS	1.000 5 713	Tesi	96.2 tCode: EF	80 PA Method 8084	120			
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date:	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl	ype: MS	1.000 5 713 2/28/2017	Tesi	96.2 tCode: EF tunNo: 48 SeqNo: 1	80 PA Method 8084	120 8021B: Volat		RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D	ype: MS n ID: 35 Date: 12	1.000 5 713 2/28/2017	Test R S	96.2 tCode: EF tunNo: 48 SeqNo: 1	80 PA Method 8084 541272	120 8021B: Volat Units: mg/K	g	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D Result	ype: MS h ID: 35 Date: 12 PQL	1.000 5 713 2/28/2017 SPK value	Test R S SPK Ref Val	96.2 tCode: EF RunNo: 44 SeqNo: 14 %REC	80 PA Method 8084 541272 LowLimit	120 8021B: Volat Units: mg/K HighLimit	g	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D Result 0.90	ype: MS h ID: 35 Date: 12 PQL 0.024	1.000 5 713 2/28/2017 SPK value 0.9766	Tesi R SPK Ref Val 0	96.2 tCode: EF RunNo: 48 GeqNo: 18 %REC 91.7	80 PA Method 8084 541272 LowLimit 80.9	120 8021B: Volat Units: mg/K HighLimit 132	g	RPDLimit	Qual
(ylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene (ylenes, Total	1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93	Type: MS n ID: 357 Date: 12 PQL 0.024 0.049	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766	Tesi R SPK Ref Val 0 0.008732	96.2 tCode: EF RunNo: 48 SeqNo: 19 %REC 91.7 94.7	80 PA Method 8084 541272 LowLimit 80.9 79.8	120 8021B: Volat Units: mg/k HighLimit 132 136	g	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total	1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis D <u>Result</u> 0.90 0.93 0.95	ype: MS n ID: 35 Date: 12 PQL 0.024 0.049 0.049	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 0.9766	Tesi R S SPK Ref Val 0 0.008732 0	96.2 tCode: EF 2unNo: 44 SeqNo: 15 %REC 91.7 94.7 97.3	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.8 79.4	120 8021B: Volat Units: mg/k HighLimit 132 136 140	g	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis E Result 0.90 0.93 0.95 2.9 0.92	ype: MS n ID: 35 Date: 12 PQL 0.024 0.049 0.049	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766	Test R S SPK Ref Val 0 0.008732 0 0 0	96.2 tCode: EF kunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 98.7 94.5	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142	g %RPD	RPDLimit	Qual
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93 0.95 2.9 0.92 ISD SampT	ype: MS n ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.098	1.000 3 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0.9766 3 0 0.9766 3 0 0 0 0 0 0 0 0 0 0 0 0 0	Tesi R SPK Ref Val 0 0.008732 0 0 0	96.2 tCode: EF kunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 98.7 94.5	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80 PA Method	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120	g %RPD	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID:	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93 0.95 2.9 0.92 ISD SampT	ype: MS n ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.098	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 2.930 0.9766 5D 713	Tesi R SPK Ref Val 0 0.008732 0 0 0 Tesi R	96.2 tCode: EF RunNo: 48 SeqNo: 19 %REC 91.7 94.7 97.3 98.7 94.5 tCode: EF	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80 PA Method 8084	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120	g %RPD iles	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date:	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis D Result	ype: MS b ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.049 0.098	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 0.9766 2.930 0.9766 50 713 2/28/2017 SPK value	Tesi R SPK Ref Val 0 0.008732 0 0 0 Tesi R	96.2 tCode: EF 2unNo: 44 3eqNo: 19 36 91.7 91.7 91.7 91.7 97.3 98.7 94.5 tCode: EF 2unNo: 44 3eqNo: 19 3eqNo: 19	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 78.5 80 PA Method 8084 541273 LowLimit	120 8021B: Volat Units: mg/K HighLimit 132 136 140 142 120 8021B: Volat Units: mg/K HighLimit	g %RPD iles g %RPD	RPDLimit	Qual
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis E Result 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis E Result 0.90	Type: MS on ID: 35 Date: 12 0.024 0.049 0.049 0.049 0.098 Type: MS on ID: 35 Date: 12 PQL 0.024	1.000 5 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 2.930 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.935 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.955 2.9555 2.9555 2.9555 2.9555 2.9555 2.9555 2.9555 2.9555	Test R SPK Ref Val 0 0.008732 0 0 0 Test R SPK Ref Val 0	96.2 tCode: EF 2unNo: 44 3eqNo: 19 3REC 91.7 94.7 97.3 98.7 94.5 tCode: EF 2unNo: 44 3eqNo: 19 3eqNo: 19 3eqNo: 19 3eqNo: 19 3eqNo: 19	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.8 79.4 78.5 80 PA Method 8084 541273 LowLimit 80.9	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132	iles %RPD 0.135	RPDLimit 20	
Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene Ethylbenzene Kylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Foluene	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1	0.96 IS SampT 2211 Batcl Analysis D 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis D Result	Type: MS n ID: 35 Date: 12 0.024 0.024 0.049 0.049 0.049 0.098 Type: MS n ID: 35 Date: 12 PQL 0.024 0.024 0.024	1.000 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 3.9766 2.930 0.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.97766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.97666 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.	Tesi SPK Ref Val 0 0.008732 0 0 0 Tesi R SPK Ref Val	96.2 tCode: EF tunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 94.7 94.5 tCode: EF tunNo: 44 SeqNo: 15 %REC 92.9 95.3	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 79.4 79.5 80 PA Method 8084 541273 LowLimit 80.9 79.8	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132 136	iles %RPD iles 6 g 0.135 0.540	RPDLimit 20 20	
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis D Result 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis D Result 0.90 0.93 0.93 0.94	Type: MS n ID: 357 Date: 12 0.024 0.049 0.049 0.049 0.098 Type: MS n ID: 357 Date: 12 PQL 0.024 0.024 0.048 0.048	1.000 713 2/28/2017 SPK value 0.9766 0.9766 0.9766 2.930 0.9766 2.930 0.9766 5D 713 2/28/2017 SPK value 0.9653 0.9653 0.9653	Test R SPK Ref Val 0 0.008732 0 0 0 Test R SPK Ref Val 0	96.2 tCode: EF anNo: 44 %REC 91.7 94.7 97.3 98.7 94.5 tCode: EF anNo: 44 SeqNo: 15 %REC 92.9 95.3 97.5	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.8 79.4 78.5 80 PA Method 8084 541273 LowLimit 80.9	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132	iles %RPD 0.135	RPDLimit 20	
Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID:	1712E28-001AM S-1113525006-1 12/26/2017 nofluorobenzene 1712E28-001AM S-1113525006-1 12/26/2017	0.96 IS SampT 2211 Batcl Analysis E Result 0.90 0.93 0.95 2.9 0.92 ISD SampT 2211 Batcl Analysis E Result 0.90 0.93	Type: MS n ID: 35 Date: 12 0.024 0.024 0.049 0.049 0.049 0.098 Type: MS n ID: 35 Date: 12 PQL 0.024 0.024 0.024	1.000 713 2/28/2017 SPK value 0.9766 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 2.930 0.9766 3.9766 2.930 0.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.97766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.97666 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.9766 3.	Test R S SPK Ref Val 0 0.008732 0 0 0 Test S SPK Ref Val 0 0.008732	96.2 tCode: EF tunNo: 44 SeqNo: 15 %REC 91.7 94.7 94.7 94.7 94.7 94.5 tCode: EF tunNo: 44 SeqNo: 15 %REC 92.9 95.3	80 PA Method 8084 541272 LowLimit 80.9 79.8 79.4 79.4 79.5 80 PA Method 8084 541273 LowLimit 80.9 79.8	120 8021B: Volat Units: mg/k HighLimit 132 136 140 142 120 8021B: Volat Units: mg/k HighLimit 132 136	iles %RPD iles 6 g 0.135 0.540	RPDLimit 20 20	

Qualifiers:

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

Page 4 of 4

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Analysis Labor 4901 Hawkin Albuquerque, NM 8 TEL: 505-345-3975 FAX: 505-345- Website: www.hallenvironmenta	Sample Log-In Check List
Client Name: GHD	Work Order Number: 1712E28	RcptNo: 1
Received By: Andy Freeman Completed By: Michelle Garcia Reviewed By: DDS/	12/23/2017 8:30:00 AM 12/26/2017 10:46:00 AM $1 \supset 2 / \supset \Box / 17$	- Micross Garcies
Chain of Custody		
1. Custody seals intact on sample bottles?	Yes 🗌	No 🗌 Not Present 🗹
2. Is Chain of Custody complete?	Yes 🔽	No 🗌 Not Present 🗌

Received By: Andy Freeman	12/23/2017 8:30:00 AM	andy	
Completed By: Michelle Garcia	12/26/2017 10:46:00 AM	-Minus Gan	ue
Reviewed By: DDSfmg	12/24/17		
Chain of Custody			
1. Custody seals intact on sample bottles	i? Yes 🗌	No 🗆	Not Present 🗹
2. Is Chain of Custody complete?	Yes 🗹	No 🗌	Not Present
3. How was the sample delivered?	Courier		
Log In			
4. Was an attempt made to cool the same	nples? Yes 🗹	No 🗆	NA \square

Yes 🗸

Yes ¥

Yes V

Yes V

Yes 🗌

Yes 🗌 Yes

Yes 🗸

Yes 🖌

Yes 🖌

Yes 🗸

No 🗌

No 🗌

No No

No ¥

No

No 🗸

No

No 🗌

No

No 🗌

NA 🗌

NA 🗌

(<2 or >12 unless noted)

No VOA Viais V

Adjusted?

Checked by:

of preserved bottles checked for pH:

Log In

5. Were all samples received at a temperature of >0° C to 6.0°C

6. Sample(s) in proper container(s)?

10. VOA vials have zero headspace?

7.	Sufficient sample volume for indicated test(s)?
8	Are samples (excent VOA and ONG) properly preserved

A' un service (sursider service arreader des des	
9. Was preservative added to bottles?	

					-	
11.	Were	any	sample	containers	received	broken?

12.1	Does paperwork match bottle labels?
(Note discrepancies on chain of custody)
13./	Are matrices correctly identified on Chain of Custody?

14. Is it clear what analyses were requested?

15. Were all holding times able to be met? (If no, notify customer for authorization.)

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order?	Yes		Na 🗌	NA 🗹
Person Notified: By Whom:	Date Via:		Phone Fa	- ix 🗌 In Person
Regarding: Client Instructions:				

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

Page	1	of	1
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Time:	C Rush		05		che.	11 35220-06	ger.	LI P L'SCL			∆ Yes	1 :	Preservative Type	ICE	19	м	11	
Turn-Around Time:	d Standard	Project Name:	01	Project #:		111	Project Mana	A	PERMACA	Sampler:	On loe:			4-25:1J.c	*	er.		Received by:
Chain-of-Custody Record	3		Mailing Address: 6121 Ind. on School Rund	- MLD W	Cry un S (110	884-0672	Bernard, Bekisch Ogud. con Project Manager.	,	Level 4 (Full Validation)				Sample Request ID	1:5-1-122-1306-1221-905-252111-5	5-11135250-06-122117-3P58-4-30	5-11-35-25-05-12-217-38-1-38	04-1-85-26-11271-30-05256 III-5	
of-CL	GHD Services		6121 I	VC N	U Z	1	Berne				D Other		Matrix	S	S	٢	S	K ast S age
hain-	GHD		Address	DV CC C		#: (SoS)	Fax#:	QA/QC Package:	dard	tation	AP	(Type)	Time	1550	1555	1600	1605	
0	Client:		Mailing	() 40	1120	Phone #:	email or Fax#:	QA/QC F	Standard	Accreditation	O NELAP	D EDD (Type)	Date	12/21	(2/2)	12/21	12/21	



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

January 15, 2018 Bernie Bockisch GHD 6121 Indian School Road, NE #200 Albuquerque, NM 87110 TEL: (505) 884-0672 FAX

OrderNo.: 1801312

Dear Bernie Bockisch:

RE: TD-5

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/6/2018 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report

Lab Order: 1801312

Hall Environ	mental Analysis	Laborate	ory, Inc.		Date Reported: 1/15/2018
	GHD TD-5				Lab Order: 1801312
Lab ID: Client Sample ID:	1801312-001 S-11135250-06-0103	18-MG-TP-19	-4		ate: 1/3/2018 12:00:00 PM rix: SOIL
Analyses		Result	PQL Qua	al Units	DF Date Analyzed Batch ID
EPA METHOD 300 Chloride	0.0: ANIONS	ND	30	mg/Kg	Analyst: MRA 20 1/15/2018 1:12:41 AM 36012
Lab ID:	1801312-002			Collection D	ate: 1/3/2018 1:50:00 PM
Client Sample ID:	S-11135250-06-0103	18-MG-TP-20	-4	Mat	rix: SOIL
Analyses		Result	PQL Qua	al Units	DF Date Analyzed Batch ID
EPA METHOD 300	0.0: ANIONS				Analyst: MRA
Chloride		ND	30	mg/Kg	20 1/15/2018 1:25:06 AM 36012

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

Qualifiers:

....

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 2
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Client:GHDProject:TD-5

Sample ID MB-36012	SampType: mblk	TestCode: EPA Method	TestCode: EPA Method 300.0: Anions						
Client ID: PBS	Batch ID: 36012	RunNo: 48434							
Prep Date: 1/14/2018	Analysis Date: 1/14/2018	SeqNo: 1556984	Units: mg/Kg						
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit G	Qual				
Chloride	ND 1.5								
Chloride Sample ID LCS-36012	ND 1.5 SampType: Ics	TestCode: EPA Method	l 300.0: Anions						
		TestCode: EPA Method RunNo: 48434	l 300.0: Anions						
Sample ID LCS-36012	SampType: Ics		I 300.0: Anions Units: mg/Kg						
Sample ID LCS-36012 Client ID: LCSS	SampType: Ics Batch ID: 36012 Analysis Date: 1/14/2018	RunNo: 48434	Units: mg/Kg	RPDLimit G	Qual				

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 2 of 2

Hall Environmental Analysis Laboratory HALL ENVIRONMENTAL Albuquerque, NM 87109 ANALYSIS TEL: 505-345-3975 FAX: 505-345-4107 LABORATORY Website: www.hallenvironmental.com

Sample Log-In Check List

Client N	ame:	GHD		Work	Order Number	: 1801;	312			RcptN	lo: 1		
Received	By:	Anne Tho	rne	1/6/201	B 10:30:00 AM			<i>A</i> m	rı A				
Complete	ed By:	Dennis S	uazo	1/8/201	8 9:31:26 AM			De	- a				
Reviewe	l By;	TH	0	1/8/1	8					C			
<u>Chain c</u>	f Cus	<u>tody</u>											
1. Is Cha	in of C	ustody comp	lete?		· .	Yes	✓	N		Not Present			
2. How v	as the	sample deliv	ered?			<u>Courie</u>	<u>)</u>					·	
Log In	•									_		-	
J. Was a	n atterr	pt made to o	cool the sampl	les?		Yes	✓	N		NA 🗔			
4. Were a	III samp	les received	at a tempera	ture of >0° C	to 6.0°C	Yes	✓	N	b	NA 🗌			
5. Sampl	e(s) in p	proper conta	iner(s)?		· ·	Yes	✓	N	, 🗀 (· ·	
:		•			,								.,
- 14 gen			or indicated te	and the second second		Yes	_	No	_				
				perly preserve	ed?			No		· · · · · · · · · · · · · · · · · · ·		· · ·	
8. Was pi	eserva	ive added to	bottles?			Yes	<u> </u>	No		NA 🗆			
9. VOA vi	als hav	e zero heads	space?		÷	Yes	ļ	No		No VOA Vials 🗹		а. А. А. А.	
10. Were a	iny san	ple containe	ers received b	roken?		Yes [Ňc		# of preserved		<u></u>	
11.Does p	aperwo	rk match bol	tle labels?			Yes		No		bottles checked for pH:		Ja	
			ain of custody))	an ta sa			el de la composition de la composition La composition de la c	: 	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	or >12 ui	nless noted)	
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14. Were a	ll holdir	ig times able	1	?	' 'a.' '	Yes		No No		Checked by:			
	· • ·		uthorization.)									:	_
		ng (if app	· · · · · ·		n na shina n Tar shina na								
15. Was c	ient no	tified of all di	screpancies v	vith this order?	· · · · · · · · · · · · · · · · · · ·	Yes		No		NA 🗹	.		
		Notified:	*****		Date:								
	By Who				Via: [eMai] Phone [] Fax	ln Person			
	Regardi Slient In	ng: structions:		and a state of the				n de anter de la companye					
16. Additi		3											
17. <u>Coole</u> Co	<u>r Infor</u> i der No	nation Temp ºC	Condition	Seal Intact	Seal No S	eal Dat	e	Signed	Bv	1			
		1.8	Good	Not Present			-	Signed	-,	-			

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4901 Hawkins NE

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Turn-Around Time:	X Standard	Project Name:	TD-5	Project #:	M13.	Project Manager:	Raxue	196.36	Sampler: J	1		HOZ Sil Jar	402 Soil Juc									Received by: Received by:
Chain-of-Custody Record			Mailing Address: 6121 Indian School RA, Silte 200	0	0672	~		Level 4 (Full Validation)	□ Other		Matrix Sample Request ID	5 S-11135 250-e6 20 103 (8-446-7 P.44-44 02 5.1)	5 5-1435250-06-614318-M6-722044402 5-11									Relinquished by: Received by: Date Time Remarks: Relinquished py: Received by: 1330 1330 Relinquished py: Received by: 100 //00 //00 //00 //00 //00 //00 //00
Chain	GHD	-	g Address	A bog usegue	;#: 50S	email or Fax#:	QA/QC Package:	ndard	Accreditation	EDD (Type)	Time	3 (200	1350									
	Client:		Mailin	NĒ	Phone #:	email	QA/QC	□ Standard	Accreditati		Date	01/03/18	0103/18									Date:



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

March 05, 2018

Bernie Bockisch GHD 6121 Indian School Road, NE #200 Albuquerque, NM 87110 TEL: (505) 884-0672 FAX

OrderNo.: 1802D77

RE: Trunk MC14

Dear Bernie Bockisch:

Hall Environmental Analysis Laboratory received 1 sample(s) on 2/27/2018 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Lab Order: 1802D77

Date Reported: 3/5/2018

	GHD Frunk MC14				Lab O	rder: 1802	D77	
Lab ID:	1802D77-001			Collection D	ate: 2/2	0/2018 2:20:00 F	РМ	
Client Sample ID:	S-11135250-06-022	2018-JP-TP-1-20		Mat	t rix: SO	IL		
Analyses		Result	PQL Qu	ual Units	DF	Date Analyzed	Batcl	h ID
EPA METHOD 300	0.0: ANIONS					Ar	nalyst: C	JS
Chloride		ND	30	mg/Kg	20	3/2/2018 4:48:18	PM 36	6801
EPA METHOD 801	15M/D: DIESEL RANG	GE ORGANICS				Ar	alyst: T	ОМ
Diesel Range Orga	anics (DRO)	ND	9.3	mg/Kg	1	2/28/2018 5:37:13	3 PM 36	6756
Motor Oil Range O	rganics (MRO)	ND	47	mg/Kg	1	2/28/2018 5:37:13	3 PM 36	6756
Surr: DNOP		108	70-130	%Rec	1	2/28/2018 5:37:13	3 PM 36	6756
EPA METHOD 801	15D: GASOLINE RAN	IGE				Ar	nalyst: N	SB
Gasoline Range Or	rganics (GRO)	ND	4.7	mg/Kg	1	2/28/2018 2:09:25	5 PM 36	6745
Surr: BFB		95.9	15-316	%Rec	1	2/28/2018 2:09:25	5 PM 36	6745
EPA METHOD 802	21B: VOLATILES					Ar	nalyst: N	SB
Benzene		ND	0.024	mg/Kg	1	2/28/2018 2:09:25	5 PM 36	6745
Toluene		ND	0.047	mg/Kg	1	2/28/2018 2:09:25	5 PM 36	6745
Ethylbenzene		ND	0.047	mg/Kg	1	2/28/2018 2:09:25	5 PM 36	6745
Xylenes, Total		ND	0.094	mg/Kg	1	2/28/2018 2:09:25	5 PM 36	6745
Surr: 4-Bromoflu	iorobenzene	91.6	80-120	%Rec	1	2/28/2018 2:09:25	5 PM 36	6745

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

Qualifiers:

*

- Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded

Hall Environmental Analysis Laboratory, Inc.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 5
- Р Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified W

Page 2 of 5

Client: GHD **Project:** Trunk MC14 Sample ID MB-36801 SampType: mblk TestCode: EPA Method 300.0: Anions Client ID: PBS Batch ID: 36801 RunNo: 49514 Prep Date: 3/2/2018 Analysis Date: 3/2/2018 SeqNo: 1600237 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Chloride ND 1.5 Sample ID LCS-36801 SampType: Ics TestCode: EPA Method 300.0: Anions Batch ID: 36801 Client ID: LCSS RunNo: 49514 Prep Date: 3/2/2018 Analysis Date: 3/2/2018 SeqNo: 1600238 Units: mg/Kg Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Analyte Qual Chloride 14 1.5 15.00 0 90.6 90 110

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

Client: GHD Project: Trunk MC14

Sample ID LCS-36756	SampT	ype: LC	S	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch	n ID: 36	756	RunNo: 49444							
Prep Date: 2/27/2018	Analysis D	ate: 2/	28/2018	S	SeqNo: 1	597085	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	47	10	50.00	0	93.7	70	130				
						30	100				
Surr: DNOP	4.1		5.000		81.5	70	130				
Surr: DNOP Sample ID MB-36756		ype: ME		Tes		-	130 8015M/D: Die	esel Range	e Organics		
	SampT	Type: ME n ID: 36	BLK			PA Method		esel Range	e Organics		
Sample ID MB-36756	SampT	n ID: 36	BLK	F	tCode: El	PA Method 9444		U	e Organics		
Sample ID MB-36756 Client ID: PBS	SampT Batch	n ID: 36	3LK 756 28/2018	F	tCode: El	PA Method 9444	8015M/D: Die	U	e Organics	Qual	
Sample ID MB-36756 Client ID: PBS Prep Date: 2/27/2018 Analyte	SampT Batch Analysis D	n ID: 36 Date: 2/	3LK 756 28/2018	F	tCode: EF RunNo: 49 SeqNo: 19	PA Method 9444 597086	8015M/D: Die Units: mg/K	(g	U	Qual	
Sample ID MB-36756 Client ID: PBS Prep Date: 2/27/2018	SampT Batch Analysis D Result	n ID: 36 Date: 2/ PQL	3LK 756 28/2018	F	tCode: EF RunNo: 49 SeqNo: 19	PA Method 9444 597086	8015M/D: Die Units: mg/K	(g	U	Qual	

Qualifiers:

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

Page 3 of 5

Client: GHD **Project:** Trunk MC14 Sample ID MB-36745 SampType: MBLK TestCode: EPA Method 8015D: Gasoline Range Client ID: PBS Batch ID: 36745 RunNo: 49465 Prep Date: 2/27/2018 Analysis Date: 2/28/2018 SeqNo: 1597509 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual Gasoline Range Organics (GRO) ND 5.0 Surr: BFB 960 1000 96.0 15 316 TestCode: EPA Method 8015D: Gasoline Range Sample ID LCS-36745 SampType: LCS Client ID: LCSS Batch ID: 36745 RunNo: 49465 Prep Date: 2/27/2018 Analysis Date: 2/28/2018 SeqNo: 1597511 Units: mg/Kg Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual Gasoline Range Organics (GRO) 28 5.0 25.00 0 112 75.9 131 1200 1000 Surr: BFB 115 15 316

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 4 of 5

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#:	1802D77
	05-Mar-18

Client: GHD

Project: Trunk MC14

Sample ID MB-36745	SampT	ype: ME	BLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batcl	h ID: 36	745	R	anNo: 4	9465						
Prep Date: 2/27/2018	Analysis D	Date: 2/	28/2018	S	SeqNo: 1	597547	Units: mg/K	٢g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	ND	0.025										
Toluene	ND	0.050										
Ethylbenzene	ND	0.050										
Xylenes, Total	ND	0.10										
Surr: 4-Bromofluorobenzene	0.96		1.000		95.6	80	120					
Sample ID LCS-36745	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	tiles				
Client ID: LCSS	Batcl	h ID: 36	745	R								
Prep Date: 2/27/2018	Analysis D	Date: 2/	28/2018	S	SeqNo: 1	597548	Units: mg/K	٢g				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Benzene	1.1	0.025	1.000	0	105	77.3	128					
Toluene	1.1	0.050	1.000	0	105	79.2	125					
Ethylbenzene	1.0	0.050	1.000	0	102	80.7	127					
Vulance Total	3.2	0.10	3.000	0	106	81.6	129					
Xylenes, Total	5.2	0.10	5.000	0	100	01.0	125					

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
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- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified
- Page 5 of 5

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Alb TEL: 505-345-397; Website: www.ha	490 uquerq FAX:	I Hawkins I ue, NM 871 505-345-41	NE 109 107	San	nple Log-li	n Check List
Client Name: GHD	Work Order Number	: 1802	2D77			Rcp	otNo: 1
Received By: Dennis Suazo	2/27/2018 9:15:00 AM			Dan	- gen	0	
Completed By: Isaiah Ortiz Reviewed By: 1, DS	2/27/2018 10:00:51 AI 2/27/18	N		ΞĊ			
UD: INW 2/27/10 Chain of Custody							
1. Is Chain of Custody complete?		Yes		No		Not Present	
2. How was the sample delivered?		Cour	ier				
Log In 3. Was an attempt made to cool the samples'	?	Yes		No		NA	
4. Were all samples received at a temperature	e of ≥0° C to 6.0°C	Yes		No		NA	
5. Sample(s) in proper container(s)?		Yes		No			
6. Sufficient sample volume for indicated test(5)?	Yes	✓	No			
7. Are samples (except VOA and ONG) proper	,		v	No			
8. Was preservative added to bottles?		Yes		No	✓	NA	
9. VOA vials have zero headspace?		Yes		No		No VOA Vials	
10. Were any sample containers received broke	en?	Yes		No			
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes	✓	No		# of preserved bottles checked for pH:	2 or >12 unless noted)
12. Are matrices correctly identified on Chain of	Custody?	Yes		No		Adjusted?	
13. Is it clear what analyses were requested?		Yes		No			
14. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No		Checked b	y:
Special Handling (if applicable)							
15. Was client notified of all discrepancies with		Yes		No		NA	
Person Notified:	Date:	***********		***********			
By Whom:	Via:] eMa	il 🗌 Pho	one 🗌	Fax	📋 In Person	
Regarding:							-
Client Instructions:							
16. Additional remarks:							
17. <u>Cooler Information</u> Cooler No Temp °C Condition S 1 3.6 Good Ye		eal Da	te S	igned I	Зу		
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			Standard	Rush			L	A		SIS		BO	ANALYSIS LABORATORY	
			Project Name:	24		M	部	TATAA	www.hallenvironmental.com	nuironr	nental		5	5
100	Mailing Address: 6(2 /]	Indian Schal Rd NE	Tern	Touk Mc-14		4	4901 Hawkins NE	wkins h		Ibuque	erque.	Albuquerque, NM 87109	109	
1 2	Albuguerque	NM 87110	Project #:				Tel. 505	505-345-3975		Fax	505-34	505-345-4107		
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	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	аты + хэта эты + хэта	83108 H9T	EDB (Metho	0168) a'HA9	RCRA 8 Met ID, F) anoinA	ioitse9 1808	AOV) 80828 -ime2) 0728	r()42	
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	Relined by:		Received by:	N	Date Time								to	315