

## **Transmittal**

#### June 1, 2021

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Subject: 2020 Annual Groundwater Monitoring Report

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Copy to:	Rich Soloman, P66; Kathy Reimer, Spokane Airport Business Park		
Completed by:	Moshghan Mansoori [Please Print]	Signed:	flklan

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# 2020 Annual Groundwater Monitoring Report

Phillips 66 Facility No. 6880 Geiger Corrections Facility – USAAC Geiger Field GF003 Spokane, Washington Facility/Site No 663 VCP Project No. EA0263

Phillips 66 Company



9725 3rd Avenue Northeast Suite 204 Seattle Washington 98115 USA | 11226610 | Report No 1 | June 1, 2021



## **Table of Contents**

1.	Introd	uction	1
2.	Site A	ctivities and Findings	1
	2.1	Current Activities	1
	2.2	Findings	1
3.	2020	Investigation Derived Waste	3
4.	Concl	usions and Recommendations	3

## **Figure Index**

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3A	Groundwater Contour and Chemical Concentration Map Shallow Zone- March 5, 2020
Figure 3B	Groundwater Contour and Chemical Concentration Map Intermediate Zone- March 5, 2020
Figure 4A	Groundwater Contour and Chemical Concentration Map Shallow Zone – June 3, 2020
Figure 4B	Groundwater Contour and Chemical Concentration Map Intermediate Zone – June 3, 2020
Figure 5A	Groundwater Contour and Chemical Concentration Map Shallow Zone- September 3, 2020
Figure 5B	Groundwater Contour and Chemical Concentration Map Intermediate Zone – September 3, 2020

## **Table Index**

- Table 1A
   Summary of Groundwater Monitoring Data Shallow Wells
- Table 1B
   Summary of Groundwater Monitoring Data Intermediate Wells

## **Appendix Index**

- Appendix A Field Data Sheets
- Appendix B Laboratory Analytical Reports
- Appendix C Waste Manifests



## 1. Introduction

GHD Services Inc. (GHD) is submitting this *2020 Annual Groundwater Monitoring Report* on behalf of Phillips 66 Company (P66) for the P66 Geiger Corrections Facility (No. 6880) located at the southeast corner of South Spotted Road and Alton Road in Spokane, Washington (Site, Figure 1).

The purpose of this annual report is to present the results of the quarterly groundwater monitoring events conducted at the Site. Due to COVID restrictions, fourth quarter activities were not completed in 2020 (email to Ecology November 18, 2020). The Property is currently in the Washington State Department of Ecology Voluntary Cleanup Program (VCP) under the VCP Project Number EA0263 and Facility Site ID number 663.

## 2. Site Activities and Findings

### 2.1 Current Activities

During 2020, groundwater monitoring and sampling was completed by GHD according to the established monitoring program with the exception of the fourth quarter 2020 monitoring event that was not performed as discussed above. Groundwater monitoring and sampling consisted of measuring depth to water in select wells from the surveyed top of casing elevation and collecting a groundwater sample using low-flow sampling procedures. Groundwater samples were placed immediately on ice and shipped under chain of custody to an approved laboratory for analysis of the Site constituents of concern.

GHD prepared a Site location map (Figure 1), Site plan (Figure 2), and groundwater contour and chemical concentration maps (Figures 3A through 5B). GHD prepared Tables 1A and 1B summarizing groundwater monitoring data and laboratory analytical results. Field forms and the laboratory analytical reports are included as Appendices A and B, respectively.

### 2.2 Findings

Quarter/Date (Figures 3A and 3B)	1 <sup>st</sup> /March 5, 2020
Shallow Zone:	
Groundwater Flow Direction	East
Hydraulic Gradient	0.002 foot/foot
Depth to Water	4.21 to 11.73 feet below top of well casing
Intermediate Zone:	
Groundwater Flow Direction	Northwest
Hvdraulic Gradient	0.009 foot/foot



Depth to Water	30.94 to 31.98 feet below top of well casing
Quarter/Date (Figures 4A and 4B)	2 <sup>nd</sup> /June 3, 2020
Shallow Zone:	
Groundwater Flow Direction	East
Hydraulic Gradient	0.002 foot/foot
Depth to Water	4.12 to 12.00 feet below top of well casing
Intermediate Zone:	
Groundwater Flow Direction	Northwest
Hydraulic Gradient	0.006 foot/foot
Depth to Water	31.80 to 33.18 feet below top of well casing
Quarter/Date (Figures 5A and 5B)	31.80 to 33.18 feet below top of well casing 3 <sup>rd</sup> /September 9, 2020
Depth to Water Quarter/Date (Figures 5A and 5B) Shallow Zone:	31.80 to 33.18 feet below top of well casing 3 <sup>rd</sup> /September 9, 2020
Quarter/Date (Figures 5A and 5B) Shallow Zone: Groundwater Flow Direction	31.80 to 33.18 feet below top of well casing 3 <sup>rd</sup> /September 9, 2020 Northeast
Depth to Water         Quarter/Date (Figures 5A and 5B)         Shallow Zone:         Groundwater Flow Direction         Hydraulic Gradient	31.80 to 33.18 feet below top of well casing 3 <sup>rd</sup> /September 9, 2020 Northeast 0.003 foot/foot
Depth to Water         Quarter/Date (Figures 5A and 5B)         Shallow Zone:         Groundwater Flow Direction         Hydraulic Gradient         Depth to Water	<ul> <li>31.80 to 33.18 feet below top of well casing</li> <li>3<sup>rd</sup>/September 9, 2020</li> <li>Northeast</li> <li>0.003 foot/foot</li> <li>4.70 to 5.75 feet below top of well casing</li> </ul>
Depth to Water         Quarter/Date (Figures 5A and 5B)         Shallow Zone:         Groundwater Flow Direction         Hydraulic Gradient         Depth to Water         Intermediate Zone:	<ul> <li>31.80 to 33.18 feet below top of well casing</li> <li>3<sup>rd</sup>/September 9, 2020</li> <li>Northeast</li> <li>0.003 foot/foot</li> <li>4.70 to 5.75 feet below top of well casing</li> </ul>
Depth to Water         Quarter/Date (Figures 5A and 5B)         Shallow Zone:         Groundwater Flow Direction         Hydraulic Gradient         Depth to Water         Intermediate Zone:         Groundwater Flow Direction	<ul> <li>31.80 to 33.18 feet below top of well casing</li> <li>3<sup>rd</sup>/September 9, 2020</li> <li>Northeast</li> <li>0.003 foot/foot</li> <li>4.70 to 5.75 feet below top of well casing</li> <li>Northwest</li> </ul>
Depth to Water         Quarter/Date (Figures 5A and 5B)         Shallow Zone:         Groundwater Flow Direction         Hydraulic Gradient         Depth to Water         Intermediate Zone:         Groundwater Flow Direction         Hydraulic Gradient	<ul> <li>31.80 to 33.18 feet below top of well casing</li> <li>3<sup>rd</sup>/September 9, 2020</li> <li>Northeast</li> <li>0.003 foot/foot</li> <li>4.70 to 5.75 feet below top of well casing</li> <li>Northwest</li> <li>0.007 foot/foot</li> </ul>

As shown in Tables 1A and 1B, laboratory analytical results indicate total petroleum hydrocarbons (TPH) as gasoline (TPHg) and as diesel (TPHd) concentrations were above MTCA Method A cleanup levels (CULs) in shallow zone monitoring wells MP-1R and MW-2. Wells in the intermediate zone were below CULs except for monitoring well MW-7 where TPHd exceeded the CUL during the third quarter event. Laboratory analytical results indicated benzene, toluene, ethylbenzene and total xylenes (BTEX) concentrations were below CULs or not detected in every sample collected during all three quarters of 2020.



## 3. 2020 Investigation Derived Waste

All investigation derived waste (IDW) including purge water and decontamination water was stored on-Site in Department of Transportation (DOT)-compliant 55-gallon drum(s) for subsequent disposal. During the first quarter 2020 event, IDW water was transported by DH Environmental to Chemical Waste Management of the Northwest in Arlington, Oregon for disposal. During the second quarter 2020, IDW water was transported by DH Environmental via vac truck/bulk pickup and transported to Chemical Waste Management of the Northwest in Arlington, Oregon for disposal. Waste derived from the third quarter activities has been stored on-Site for subsequent transport/disposal during the first half of 2021.

Waste manifest documentation is provided in Appendix C.

## 4. **Conclusions and Recommendations**

Groundwater monitoring events were conducted during three quarters in 2020. As communicated on November 18, 2020, due to site access restrictions related to COVID, the fourth quarter activities were not completed. Groundwater monitoring results indicate that groundwater in the shallow zone typically flows toward the east at an approximate hydraulic gradient of 0.002 foot per foot. Additionally, groundwater in the intermediate zone typically flows toward the northwest at an approximate hydraulic gradient of 0.007 foot per foot. Groundwater sampling analytical results indicate that TPHg and TPHd concentrations in the shallow zone exceed the CULs in wells MP-1R and MW-2. In the intermediate zone, only one well, MW-7, exceeded the TPHd CUL during the third quarter sampling event. BTEX concentrations in both zones remain below CULs. Since Site monitoring began in 2001, TPHg, TPHd, and BTEX concentrations have decreased significantly. BTEX concentrations have been below method reporting limits for several years in all Site wells and as a result, further sampling reductions are warranted.

GHD recommends the following:

- Reduce the quarterly groundwater monitoring and sampling frequency to Semi-Annual during the first and third quarters of each year.
- Discontinue BTEX analyses



All of Which is Respectfully Submitted,

GHD

UKlan Moshghan Mansoori

Jeff Gaarder

# **Figures**

GHD | 2020 Annual Groundwater Monitoring Report | 11226610 (1)







Source: Microsoft Product Screen Shot(s) Reprinted with permission from Microsoft Corporation, Acquisition Date Jun/2015 - Sep/2016, Accessed: 2017. Google ©2017 Image. AECOM SITE PLAN AND WELL LOCATIONS DATED 2/7/2014. MAXIM Technologies, Inc. Figures 3 and 4 dated July 2001. AECOM Soil Analytical Results 2/7/2014. StateWide Land Surveying Inc. date 12/23/19.





PHILLIPS 66 FACILITY NO. 6880 GEIGER CORRECTIONS FACILITY SPOKANE, WASHINGTON SHALLOW ZONE - MARCH 5, 2020

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e	Ð	MONITORING WELL LOCATION - SHALLOW
	D	MONITORING WELL LOCATION - INTERMEDIATE
/IP-1 🕽		ABANDONED MONITORING WELL LOCATION
	-	ABANDONED 8-INCH DOD PIPELINE
50.70 <b>-</b>	_	GROUNDWATER ELEVATION CONTOUR, IN FEET REFERENCED TO MEAN SEA LEVEL (ft. MSL), DASHED WHERE INFERRED
002		GROUNDWATER FLOW DIRECTION AND GRADIENT
		- SAMPLE LOCATION
2,350.7	0	GROUNDWATER ELEVATION (MSL)

11210714 Jan 27, 2021

## GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP **FIGURE 3A**



Source: Microsoft Product Screen Shot(s) Reprinted with permission from Microsoft Corporation, Acquisition Date Jun/2015 - Sep/2016, Accessed: 2017. Google ©2017 Image. AECOM SITE PLAN AND WELL LOCATIONS DATED 2/7/2014. MAXIM Technologies, Inc. Figures 3 and 4 dated July 2001. AECOM Soil Analytical Results 2/7/2014. StateWide Land Surveying Inc. date 12/23/19.





PHILLIPS 66 FACILITY NO. 6880 GEIGER CORRECTIONS FACILITY SPOKANE, WASHINGTON INTERMEDIATE ZONE - MARCH 5, 2020

CAD File: N:\US\Lynnwood\Projects\663\11210714\Digital\_Design\ACAD 2020\Figures\REPORT\RPT001\11210714(RPT001)GN-SO002.DWG

$\oplus$	MONITORING WELL LOCATION - SHALLOW
٢	MONITORING WELL LOCATION - INTERMEDIATE
P-1 🕱	ABANDONED MONITORING WELL LOCATION
	ABANDONED 8-INCH DOD PIPELINE
1.00	GROUNDWATER ELEVATION CONTOUR, IN FEET REFERENCED TO MEAN SEA LEVEL (ft. MSL), DASHED WHERE INFERRED
	GROUNDWATER FLOW DIRECTION AND GRADIENT
	- SAMPLE LOCATION
2,320.95 190 J <b>1,000</b>	– GROUNDWATER ELEVATION (MSL) – RESULT
	— PARAMETER

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## GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP **FIGURE 3B**



Source: Microsoft Product Screen Shot(s) Reprinted with permission from Microsoft Corporation, Acquisition Date Jun/2015 - Sep/2016, Accessed: 2017. Google ©2017 Image. AECOM SITE PLAN AND WELL LOCATIONS DATED 2/7/2014. MAXIM Technologies, Inc. Figures 3 and 4 dated July 2001. AECOM Soil Analytical Results 2/7/2014. StateWide Land Surveying Inc. date 12/23/19.





PHILLIPS 66 FACILITY NO. 6880 GEIGER CORRECTIONS FACILITY SPOKANE, WASHINGTON SHALLOW ZONE - JUNE 3, 2020

e	Ð	MONITORING WELL LOCATION - SHALLOW
	D	MONITORING WELL LOCATION - INTERMEDIATE
/IP-1 🕽		ABANDONED MONITORING WELL LOCATION
	-	ABANDONED 8-INCH DOD PIPELINE
50.70 <b>-</b>	_	GROUNDWATER ELEVATION CONTOUR, IN FEET REFERENCED TO MEAN SEA LEVEL (ft. MSL), DASHED WHERE INFERRED
002		GROUNDWATER FLOW DIRECTION AND GRADIENT
		- SAMPLE LOCATION
2,350.7	0	GROUNDWATER ELEVATION (MSL)

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## GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP **FIGURE 4A**



Source: Microsoft Product Screen Shot(s) Reprinted with permission from Microsoft Corporation, Acquisition Date Jun/2015 - Sep/2016, Accessed: 2017. Google ©2017 Image. AECOM SITE PLAN AND WELL LOCATIONS DATED 2/7/2014. MAXIM Technologies, Inc. Figures 3 and 4 dated July 2001. AECOM Soil Analytical Results 2/7/2014. StateWide Land Surveying Inc. date 12/23/19.





PHILLIPS 66 FACILITY NO. 6880 GEIGER CORRECTIONS FACILITY SPOKANE, WASHINGTON INTERMEDIATE ZONE - JUNE 3, 2020

CAD File: N:\US\Lynnwood\Projects\663\11210714\Digital\_Design\ACAD 2020\Figures\REPORT\RPT001\11210714(RPT001)GN-SO004.DWG

$\oplus$	MONITORING WELL LOCATION - SHALLOW
🥏	MONITORING WELL LOCATION - INTERMEDIATE
P-1 🕱	ABANDONED MONITORING WELL LOCATION
	ABANDONED 8-INCH DOD PIPELINE
1.00	GROUNDWATER ELEVATION CONTOUR, IN FEET REFERENCED TO MEAN SEA LEVEL (ft. MSL), DASHED WHERE INFERRED
	GROUNDWATER FLOW DIRECTION AND GRADIENT
	- SAMPLE LOCATION
2,320.95 190 J <b>1,000</b>	GROUNDWATER ELEVATION (MSL) - RESULT
	– PARAMETER

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## GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP **FIGURE 4B**



Source: Google ©2017 Image. AECOM SITE PLAN AND WELL LOCATIONS DATED 2/7/2014. MAXIM Technologies, Inc. Figures 3 and 4 dated July 2001. AECOM Soil Analytical Results 2/7/2014. StateWide Land Surveying Inc. date 12/23/19.





PHILLIPS 66 FACILITY NO. 6880 GEIGER CORRECTIONS FACILITY SPOKANE, WASHINGTON SHALLOW ZONE - SEPTEMBER 3, 2020

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		LEGEND
	Ð	MONITORING WELL LOCATION - SHALLOW
		MONITORING WELL LOCATION - INTERMEDIATE
_		<ul> <li>ABANDONED MONITORING WELL LOCATION</li> <li>ABANDONED 8-INCH DOD PIPELINE</li> </ul>
,350.20		<ul> <li>GROUNDWATER ELEVATION CONTOUR, IN FEET REFERENCED TO MEAN SEA LEVEL (ft. MSL), DASHED WHERE INFERRED</li> </ul>
0.003		GROUNDWATER FLOW DIRECTION AND GRADIENT
		- SAMPLE LOCATION
N-2	2,350.49	— GROUNDWATER ELEVATION (MSL)
'Hg 'Hd nzene	<b>1,100</b> 630 - <1.0	— RESULT
	•	— PARAMETER

NOTES: 1. ALL CONCENTRATIONS REPORTED IN MICROGRAMS PER

 LITER (μg/L).
 TPH-G = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
 TPH-D = TOTAL PETROLEUM HYDROCARBONS AS DIESEL 4. NM = NOT MEASURED 5. NS = NOT SAMPLED7. BOLD = EXCEEDANCE ABOVE MODEL TOXICS CONTROL ACT (MTCA) METHOD A CLEANUP LEVEL.

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## GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP **FIGURE 5A**



Source: Google ©2017 Image. AECOM SITE PLAN AND WELL LOCATIONS DATED 2/7/2014. MAXIM Technologies, Inc. Figures 3 and 4 dated July 2001. AECOM Soil Analytical Results 2/7/2014. StateWide Land Surveying Inc. date 12/23/19.





PHILLIPS 66 FACILITY NO. 6880 GEIGER CORRECTIONS FACILITY SPOKANE, WASHINGTON **INTERMEDIATE ZONE - SEPTEMBER 3, 2020** 

CAD File: N:\US\Lynnwood\Projects\663\11210714\Digital\_Design\ACAD 2020\Figures\REPORT\RPT001\11210714(RPT001)GN-SO006.DWG

LEGEND	
<ul> <li>MONITORING WELL LOCATION - SHALLOW</li> <li>MONITORING WELL LOCATION - INTERMEDIATE</li> <li>ABANDONED MONITORING WELL LOCATION</li> <li>ABANDONED 8-INCH DOD PIPELINE</li> </ul>	
,321.00 GROUNDWATER ELEVATION CONTOUR, IN FEET REFERENCED TO MEAN SEA LEVEL (ft. MSL), DASHED WHERE INFERRED	
0.007 GROUNDWATER FLOW DIRECTION AND GRADIENT	
SAMPLE LOCATION	
N-7 2,321.98 — GROUNDWATER ELEVATION (MSL)	
89 J           Hd         570         RESULT           Inzene         <1.0	
PARAMETER	

11210714 Jan 27, 2021

## GROUNDWATER CONTOUR AND CHEMICAL CONCENTRATION MAP **FIGURE 5B**

# **Tables**

GHD | 2020 Annual Groundwater Monitoring Report | 11226610 (1)

							HYL	DROCARBO	DNS		PRIMAI	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	Х	Naph
-				MTCA Method A Screening Le	evels (Sł	nallow GW)	1000/800	500	500	5	1000	700	1000	160
				-	-		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MP-1	08/20/01	NS												
MP-1	11/30/01	Ν						50,300	<750	<0.50	<2.0	<1.0	<1.5	990
MP-1	03/25/02	Ν						9,650	<750	<0.50	<2.0	1.9	23	599
MP-1	06/04/02	Ν						39,700	<500	<0.50	<2.0	1.9	<1.5	353
MP-1	08/20/02	N						19,100	<500	<0.50	<2.0	1.1	13	223
MP-1	10/29/02	Ν						20,900	<500	<0.50	<2.0	1.2	13	413
MP-1	02/19/03	Ν						<250	<500	<0.50	<2.0	<1.0	4.2	62
MP-1	06/05/03	Ν						9,950	<500	<0.50	<2.0	<1.0	<1.5	268
MP-1	09/09/03	N						8,430	<500	<0.50	<2.0	<1.0	17	459
MP-1	12/10/03	N						13,600	<500	<0.50	<2.0	<1.0	5.9	184
MP-1	06/03/04	N						16,800	<500	<0.50	<2.0	<1.0	9.5	246
MP-1	12/01/04	N						14,800	<500	<0.50	<2.0	1.7	16	246
MP-1	06/03/05	N						17,400	<500	<0.50	<2.0	3.1	29	178
MP-1	11/21/05	N						9,900	500	<0.50	<2.0	<1.0	17	32
MP-1	06/15/06	N						11,200	<500	<0.50	<2.0	<1.0	18	<20
MP-1	12/19/06	N						2,700	<500	<0.50	<2.0	<1.0	7.2	114
MP-1	05/30/07	N						6,100	<500	<0.50	<2.0	<1.0	19	120
MP-1	10/30/07	removed from sa	ampling sch	nedule due to well obstruction										
MP-1	02/02/11		2,354.90	3.96		2350.94								
MP-1	04/26/11		2,354.90	4.20		2350.70								
MP-1	07/12/11		2,354.90	DRY										
MP-1	10/28/11		2,354.90	Obstruction in Well at 4.59 Feet	t									
MP-1	10/09/13		2,354.90	Well Decommissioned										
MP-1R	10/12/13	Ν	2,354.78	4.86		2349.92	3,210	1,200	<400	<1.0	<1.0	<1.0	13.9	16.3
MP-1R	03/11/14	N	2,354.78	2.15		2352.63	1,260	500	500	<1.0	<1.0	<1.0	<3.0	<4.0
MP-1R	03/11/14	FD					1,300	520	640	<1.0	<1.0	<1.0	<3.0	<4.0
MP-1R	06/03/14	N	2,354.78	4.95		2349.83	3,890	1,400	<420	<1.0	<1.0	<1.0	13.5	10.6
MP-1R	04/06/17	N	2,354.78	3.58		2351.20	430	290	110 J	<0.5	<0.5	<0.5	<0.5	<1.0
MP-1R	04/06/17	FD					450	250	80 J	<0.5	<0.5	<0.5	<0.5	<1.0
MP-1R	09/14/17	N	2,354.78	4.79		2,349.99	2,200	1,400	140 J	<1	<1	<1	<1	5
MP-1R	03/21/18	N	2354.78	3.88		2350.90	540	280	<260					
MP-1R	06/21/18	Ν	2354.78	4.79		2349.99	1,900	1,500	<270					
MP-1R	06/21/18	FD					1,900	1,400	<260					
MP-1R	09/21/18	N	2354.78	4.91		2349.87	1,600	1,400	<270					
MP-1R	12/06/18	N	2354.78	4.27		2350.51	2,800	1,400	<260					

							HYI	DROCARBO	DNS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
-				MTCA Method A Screening	Levels (Sh	allow GW)	1000/800	500	500	5	1000	700	1000	160
				-	·		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MP-1R	03/06/19	Ν	2354.78	4.31		2350.47	700	360	<260					
MP-1R	03/06/19	FD	2354.78	4.31		2350.47	710	380	<260					
MP-1R	05/21/19	Ν	2354.78	4.20		2350.58	1,200	1,200	<250					
MP-1R	05/21/19	FD	2354.78	4.20		2350.58	1,300	1,300	<270					
MP-1R	08/21/19	Ν	2354.78	4.61		2350.17	2,700	1,200	<270					
MP-1R	10/30/19	Ν	2354.78	4.42		2350.36	2,900	1,600	<260					
MP-1R	03/05/20	Ν	2354.78	4.21		2350.57	550	350	<250	<1	<1	<1	<6	
MP-1R	06/03/20	Ν	2354.78	4.12		2350.66	2,000 B	2,200 H	170 J H	<1.0	<1.0	<1.0	<6.0	
MP-1R	09/03/20	Ν	2354.78	4.76		2350.02	2,200	630	<1,300	<1.0	<1.0	<1.0	<6.0	
MW-2	08/20/01	NS												
MW-2	03/25/02	N						19,800	<750	<0.50	<2.0	<1.0	11	216
MW-2	06/04/02	N						22,100	<500	<0.50	<2.0	<1.0	8.2	1,320
MW-2	08/20/02	N						4,970	<500	<0.50	<2.0	<1.0	6.7	156
MW-2	10/29/02	N						13,700	<500	<0.50	<2.0	<1.0	6.1	199
MW-2	10/29/02	FD						15,400	<500	<0.50	<2.0	<1.0	9.3	328
MW-2	02/19/03	N						10,400	<500	<0.50	<2.0	<1.0	<1.5	140
MW-2	06/05/03	N						4,570	<500	<0.50	<2.0	<1.0	2.0	134
MW-2	06/05/03	FD						4,320	<500	<0.50	<2.0	<1.0	2.4	182
MW-2	09/09/03	N						2,560	<500	<0.50	<2.0	<1.0	<1.5	203
MW-2	09/09/03	FD						2,440	<500	<0.50	<2.0	<1.0	<1.5	204
MW-2	12/10/03	N						42,100	<500	<0.50	<2.0	<1.0	<1.5	282
MW-2	06/03/04	N						6,000	<500	<0.50	2.6	<1.0	6.0	162
MW-2	06/03/04	FD						6,500	<500	<0.50	2.1	<1.0	5.4	170
MW-2	12/01/04	N						2,410	<500	<0.50	<2.0	<1.0	5.2	38
MW-2	06/03/05	N						2,810	<500	<0.50	<2.0	<1.0	<1.5	129
MW-2	06/03/05	FD						2,910	<500	<0.50	<2.0	<1.0	5.2	129
MW-2	11/21/05	N						3,440	<500	<0.50	<2.0	<1.0	<1.5	24
MW-2	11/21/05	FD						3,680	500	<0.50	<2.0	<1.0	<1.5	23
MW-2	06/15/06	Ν						2,750	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-2	06/16/06	FD						11,200	<500	<0.50	<2.0	<1.0	18	<20
MW-2	12/19/06	N						2,340	<500	<0.50	<2.0	<1.0	2.6	95
MW-2	05/30/07	N						2,790	<500	< 0.50	<2.0	<1.0	1.7	98
MW-2	10/30/07	N					2,600	1,800	140	< 0.50	<0.70	<0.80	<0.80	<1.0
MW-2	06/24/08	N					1,600	830	<94	< 0.50	<0.70	<0.80	<0.80	<1.0
MW-2	12/03/08	N					1,800	700	<69	<0.50	<0.70	<0.80	<0.80	<1.0

							HYE	DROCARBO	ONS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	Х	Naph
				MTCA Method A Screening	g Levels (Sh	allow GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-2	06/03/09	Ν					1,730	620	<58	<0.12	<0.21	<0.20	<0.15	
MW-2	11/10/09	Ν					2,230	821	<379	<1.0	<1.0	<1.0	<3.0	3.2
MW-2	02/02/10	Ν					1,450	940	<388	<1.0	<1.0	<1.0	<3.0	3.9
MW-2	05/18/10	Ν					1,330	1,870	<392	<1.0	<1.0	<1.0	<3.0	<1.0
MW-2	08/09/10	Ν					1,200	831	<396	<1.0	<1.0	<1.0	<3.0	
MW-2	11/01/10	Ν					1,680	2,080	<388	<1.0	<1.0	<1.0	<3.0	
MW-2	02/02/11	Ν					1,700	1,170	<385	<1.0	<1.0	<1.0	<3.0	
MW-2	04/26/11	Ν					3,280	562	<392	<1.0	<1.0	<1.0	<3.0	
MW-2	07/12/11	Ν					1,020	700	<408	<1.0	<1.0	<1.0	<3.0	
MW-2	10/27/11	Ν					2,000	920	<410	<1.0	<1.0	<1.0	<3.0	
MW-2	07/02/12	Ν	2,354.55	4.83		2349.72	1,960	580	<380	<1.0	<1.0	<1.0	<3.0	<1.0
MW-2	10/10/12	Ν	2,354.55	5.06		2349.49	1,500	680	<840	<1.0	<1.0	<1.0	<3.0	7.4
MW-2	03/13/13	Ν	2,354.55	4.61		2349.94	1,060	620	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	05/15/13	Ν	2,354.55	5.09		2349.46	1,220	990	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	08/06/13	Ν	2,354.55	4.68		2350.51	924	560	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	10/11/13	Ν	2,355.19	5.19		2350.00	833	910	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	03/11/14	Ν	2,355.19	3.21		2351.98	1,900	910	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	06/03/14	Ν	2,355.19	5.10		2350.09	1,870	610	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-2	04/06/17	Ν	2,355.19	4.18		2351.01	1,500	1,200	<73	<0.5	<0.5	<0.5	<0.5	2.0
MW-2	09/14/17	Ν	2,355.19	4.89		2,350.30	1,200	720	<260	<1	<1	<1	<1	<4
MW-2	03/21/18	Ν	2355.19	4.45		2350.74	940	380	<250					
MW-2	06/21/18	Ν	2355.19	4.78		2350.41	1,000	540	<280					
MW-2	09/21/18	Ν	2355.19	5.02		2350.17	810	740	<270					
MW-2	12/06/18	Ν	2355.19	4.57		2350.62	1,400	510	<250					
MW-2	12/06/18	FD	2355.19	4.57		2350.62	1,400	400	<260					
MW-2	03/06/19	Ν	2355.19	4.70		2350.49	1,300	410	<270					
MW-2	05/21/19	Ν	2355.19	4.36		2350.83	1,200	620	<260					
MW-2	08/21/19	Ν	2355.19	4.55		2350.64	1,500	540	<260					
MW-2	10/30/19	Ν	2355.19	4.49		2350.70	1,800	700	<310					
MW-2	10/30/19	FD	2355.19	4.49		2350.70	1,700	690	<280					
MW-2	03/05/20	Ν	2355.19	4.65		2350.54	1,200	410	<260	<1	<1	<1	<6	
MW-2	03/05/20	FD	2355.19	4.65		2350.54	1,100	460	<260	<1	<1	<1	<6	
MW-2	06/03/20	Ν	2355.19	4.33		2350.86	780 B	710 H	<260	<1.0	<1.0	<1.0	<6.0	
MW-2	09/03/20	Ν	2355.19	4.70		2350.49	1,100	630	<270	<1.0	<1.0	<1.0	<6.0	
MW-3	08/20/01	NS												

							HYE	DROCARBO	DNS		PRIMAI	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	Х	Naph
				MTCA Method A Screening	Levels (Sh	allow GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-3	03/25/02	Ν						<250	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-3	06/04/02	N						267	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	08/02/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	10/29/02	N						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	02/19/03	N						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	06/05/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	09/09/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	12/10/03	Ν						<250	<500	<1.5	<2.0	<1.0	<1.5	<20
MW-3	06/03/04	NS												
MW-3	12/01/04	NS												
MW-3	06/03/05	N						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	11/21/05	NS												
MW-3	06/15/06	N						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	12/19/06	NS												
MW-3	05/30/07	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-3	10/30/07	NS												
MW-3	06/24/08	NS												
MW-3	12/03/08	NS												
MW-3	06/03/09	NS												
MW-3	11/10/09	NS												
MW-3	02/02/10	NS												
MW-3	05/18/10	NS												
MW-3	08/09/10	NS												
MW-3	11/01/10	NS												
MW-3	02/02/11	NS												
MW-3	04/26/11	NS												
MW-3	07/12/11	NS												
MW-3	10/27/11	NS												
MW-3	07/02/12	N	2,355.18	4.92		2350.26	NS							
MW-3	10/11/12	N	2,355.18	5.17		2350.01	<50	<160	<820	<1.0	<1.0	<1.0	<3.0	<1.0
MW-3	03/13/13	NS	2,355.18	4.68		2350.50								
MW-3	05/15/13	N	2,355.18	5.16		2350.02	<100	<390	<390	<1.0	<1.0	<1.0	<3.0	<4.0
MW-3	08/06/13	NS	2,355.18	4.64		2350.80								
MW-3	10/11/13	Ν	2,355.44	5.28		2350.16	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-3	03/11/14	NS	2,355.44	3.52		2351.92								
MW-3	06/03/14	N	2,355.44	4.98		2350.46	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0

							HYL	DROCARBO	DNS		PRIMAI	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	Х	Naph
-				MTCA Method A Screening	g Levels (Sł	nallow GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-3	04/06/17	Ν	2,355.44	4.28		2351.16	<50	<28	<66	<0.5	<0.5	<0.5	<0.5	<1.0
MW-3	09/14/17	Ν	2,355.44	4.89		2,350.55	<250	<100	<260	<1	<1	<1	<1	<4
MW-3	12/06/18	NS	2355.44											
MW-3	03/06/19	NS	2355.44											
MW-3	05/21/19	NS	2355.44											
MW-3	08/21/19	NS	2355.44											
MW-3	10/30/19	NS	2355.44											
MW-4	08/20/01	NS												
MW-4	03/25/02	Ν						10,600	<750	1.1	3.2	<1.0	1.9	526
MW-4	03/26/02	Ν						5,770	<750	<0.50	<2.0	<1.0	<1.5	344
MW-4	06/04/02	Ν						11,400	<500	<0.50	<2.0	<1.0	<1.5	432
MW-4	06/05/02	Ν						12,500	<500	<0.50	<2.0	1.1	1.6	278
MW-4	08/20/02	Ν						1,500	<500	<0.50	<2.0	<1.0	<1.5	43
MW-4	10/29/02	Ν						2,220	<500	<0.50	<2.0	<1.0	<1.5	72
MW-4	02/19/03	Ν						1,570	<500	<0.50	<2.0	<1.0	<1.5	22
MW-4	06/05/03	Ν						720	<500	<0.50	<2.0	<1.0	<1.5	40
MW-4	09/09/03	Ν						890	<500	<0.50	<2.0	<1.0	<1.5	61
MW-4	12/10/03	Ν						2,750	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	06/03/04	Ν						710	<500	<0.50	<2.0	<1.0	<1.5	41
MW-4	12/01/04	Ν						620	<500	0.69	<2.0	<1.0	<1.5	22
MW-4	06/03/05	Ν						370	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	11/21/05	Ν						920	<500	<0.50	<2.0	<1.0	<1.5	27
MW-4	06/15/06	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	12/19/06	Ν						360	<500	<0.50	<2.0	<1.0	<1.5	31
MW-4	12/19/06	FD						380	<500	<0.50	<2.0	<1.0	<1.5	27
MW-4	05/30/07	Ν						449	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-4	05/30/07	FD						445	<500	<0.50	<2.0	<1.0	<1.5	27
MW-4	10/30/07	Ν					700			<0.50	<0.70	<0.80	<0.80	1.0
MW-4	10/30/07	FD					660	650	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-4	06/24/08	Ν					190	200	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-4	12/03/08	Ν					330	200	<66	<0.50	<0.70	<0.80	<0.80	<1.0
MW-4	06/03/09	Ν					193	120	<59	<0.12	<0.21	<0.20	<0.15	
MW-4	11/10/09	Ν					380	363	<381	<1.0	<1.0	<1.0	<3.0	2.9
MW-4	02/02/10	Ν					162	286	<388	<1.0	<1.0	<1.0	<3.0	2.7
MW-4	05/18/10	Ν					227	650	<392	<1.0	<1.0	<1.0	<3.0	<1.0

							HYL	DROCARBO	ONS		PRIMAI	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	Х	Naph
-				MTCA Method A Screening	g Levels (Sh	allow GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-4	08/09/10	Ν					156	123	<385	<1.0	<1.0	<1.0	<3.0	
MW-4	11/01/10	Ν					374	277	<388	<1.0	<1.0	<1.0	<3.0	
MW-4	02/02/11	Ν					137	201	<392	<1.0	<1.0	<1.0	<3.0	
MW-4	04/26/11	Ν					1,010	185	<392	<1.0	<1.0	<1.0	<3.0	
MW-4	07/12/11	Ν					510	210 J	<392	<1.0	<1.0	<1.0	<3.0	
MW-4	10/27/11	Ν					173	340	<380	<1.0	<1.0	<1.0	<3.0	
MW-4	07/02/12	Ν	2,356.37	5.85		2350.52	241	180	<380	<1.0	<1.0	<1.0	<3.0	<1.0
MW-4	10/09/12	Ν	2,356.37	6.15		2350.22	113	<160	<810	<1.0	<1.0	<1.0	<3.0	5.1
MW-4	03/13/13	Ν	2,356.37	5.62		2350.75	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	05/15/13	Ν	2,356.37	6.05		2350.32	136	<390	<390	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	08/06/13	Ν	2,356.37	5.68		2350.76	120	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	10/09/13	Ν	2,356.44	6.17		2350.27	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	03/11/14	Ν	2,356.44	4.70		2351.74	192	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	06/03/14	Ν	2,356.44	5.93		2350.51	277	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-4	04/03/17	Ν	2,356.44	5.09		2351.35	200 J	190	<75	<0.5	<0.5	<0.5	<0.5	<1.0
MW-4	09/14/17	Ν	2,356.44	6.27		2,350.17	270	260	<260	<1	<1	<1	<1	<4
MW-4	03/21/18	NS	2356.44	5.47		2350.97								
MW-4	06/21/18	NS	2356.44	5.80		2350.64								
MW-4	09/21/18	NS	2356.44	6.07		2350.37								
MW-4	12/06/18	NS	2356.44	5.61		2350.83								
MW-4	03/06/19	NS	2356.44	5.76		2350.68								
MW-4	05/21/19	NS	2356.44	5.47		2350.97								
MW-4	08/21/19	NS	2356.44	5.69		2350.75								
MW-4	10/30/19	NS	2356.44	5.75		2350.69								
MW-4	03/05/20	NS	2356.44	5.69		2350.75								
MW-4	06/03/20	NS	2356.44	5.44		2351.00								
MW-4	09/03/20	NS	2356.44	5.75		2350.69								
MW-5	08/20/01	NS												
MW-5	03/25/02	Ν						1,360	<750	19.1	121	16	123	27
MW-5	06/04/02	Ν						2,720	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	08/20/02	Ν						774	<500	<0.50	<2.0	<1.0	1.6	<20
MW-5	10/29/02	Ν						2,580	<500	<0.50	<2.0	<1.0	<1.5	56
MW-5	02/19/03	Ν						1,510	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	06/05/03	Ν						596	<500	<0.50	<2.0	<1.0	<1.5	28
MW-5	09/09/03	Ν								<0.50	<2.0	<1.0	<1.5	40

						_	HYL	DROCARBO	DNS	_	PRIMAI	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	Х	Naph
				MTCA Method A Screening	Levels (Sh	allow GW)	1000/800	500	500	5	1000	700	1000	160
				-	·		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-5	12/10/03	Ν						5,040	800	<0.50	<2.0	<1.0	<1.5	<20
MW-5	06/03/04	Ν						360	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	12/01/04	Ν						4,600	<500	1.8	<2.0	<1.0	<1.5	28
MW-5	06/03/05	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	11/21/05	Ν						2,150	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	06/15/06	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	12/19/06	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	05/30/07	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-5	10/30/07	Ν					250	2,500	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-5	06/24/08	Ν					<50	170	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-5	12/03/08	Ν					240	73	<68	<0.50	<0.70	<0.80	<0.80	<1.0
MW-5	06/03/09	Ν					<13	<36	<59	<0.12	<0.21	<0.20	<0.15	
MW-5	11/10/09	Ν					<50	315	<381	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	02/02/10	Ν					<50	81	<388	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	05/18/10	Ν					<50	126	<396	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	08/09/10	NS												
MW-5	11/01/10	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-5	02/02/11	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-5	04/26/11	Ν					<50	<77	<385	<1.0	<1.0	<1.0	<3.0	
MW-5	07/12/11	Ν					<50	<78	<392	<1.0 UJ	<1.0 UJ	<1.0 UJ	<3.0 UJ	
MW-5	10/27/11	Ν					<50	990	<400	<1.0	<1.0	<1.0	<3.0	
MW-5	07/02/12	Ν	2,354.81	4.73		2350.08	<50	<78	<390	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	10/09/12	Ν	2,354.81	5.06		2349.75	<50	<170	<830	<1.0	<1.0	<1.0	<3.0	<1.0
MW-5	03/13/13	Ν	2,354.81	4.51		2350.30	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	05/15/13	Ν	2,354.81	5.01		2349.80	<100	<390	<390	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	08/06/13	Ν	2,354.81	4.67		2350.44	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	10/09/13	Ν	2355.11	5.05		2350.06	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	03/11/14	Ν	2355.11	3.40		2351.71	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	06/03/14	Ν	2355.11	5.05		2350.06	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5	04/03/17	Ν	2355.11	3.95		2351.16	<50	<30	<69	<0.5	<0.5	<0.5	<0.5	<1.0
MW-5	09/14/17	Ν	2355.11	4.89		2350.22	<250	<100	<260	<1	<1	<1	<1	<4
MW-5	03/21/18	NS	2355.11	4.39		2350.72								
MW-5	06/21/18	NS	2355.11	4.84		2350.27								
MW-5	09/21/18	NS	2355.11	4.97		2350.14								
MW-5	12/06/18	NS	2355.11	4.55		2350.56								
MW-5	03/06/19	NS	2355.11											

#### Summary of Groundwater Monitoring Data - Shallow Wells Yellowstone Pipeline Geiger Correctional Facility Spokane, Washington

							HY	DROCARBO	DNS		PRIMAI	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	Х	Naph
				MTCA Method A Screenin	g Levels (Sh	allow GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-5	05/21/19	NS	2355.11	4.47		2350.64								
MW-5	08/21/19	NS	2355.11	4.66		2350.45								
MW-5	10/30/19	NS	2355.11	4.69		2350.42								
MW-5	03/05/20	NS	2355.11	4.62		2350.49								
MW-5	06/03/20	NS	2355.11	4.44		2350.67								
MW-5	09/03/20	NS	2355.11	4.72		2350.39								
MW-10	10/30/19	NS	2354.38	Dry										
MW-10	03/05/20	NS	2354.38	Dry										
MW-10	06/03/20	NS	2354.38	Dry										
MW-10	09/03/20	NS	2354.38	Dry										
MW-11	10/30/19	NS		Dry										
MW-11	03/05/20	Ν	2354.19	11.73		2342.46	<250	<100	<260	<1	<1	<1	<6	
MW-11	06/03/20	Ν	2354.19	12.00		2342.19	26 J	71 J H	<260	<1.0	<1.0	<1.0	<6.0	
MW-11	09/03/20	NS	2354.19	Dry										

Notes:

DTW = Depth to Water in feet

GWE = Groundwater Elevation in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

TOC = Top of Casing in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

All results are in micrograms per liter ( $\mu$ g/L) unless otherwise indicated

TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH---Gx unless otherwise noted. The higher value is based on the assumption that

no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPHg cleanup level is applicable.

TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH---Dx with silica gel cleanup unless otherwise noted.

TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH---Dx with silica gel cleanup unless otherwise noted.

VOCs = Volatile organic compounds

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.

Total Xylenes = o---xylene + m,p---xylene

FD = Field duplicate

N = Normal

NS = Not sampled

NM = Not measured

----- = Not analyzed

Concentrations in bold type indicate the analyte was detected above the Site-specific cleanup level.

J = Concentration is between the method detection limit (MDL) and the limit of quantitation (LOQ) and is therefore estimated.

#### Summary of Groundwater Monitoring Data - Shallow Wells Yellowstone Pipeline Geiger Correctional Facility Spokane, Washington

							HYL	DROCARBO	ONS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
				MTCA Method A Screening	JLevels (Sha	allow GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

>S = The cleanup level exceeds the saturation level; therefore, the absense of separate phase hydrocarbons (SPH) indicates compliance with the TPH cleanup level.

B = Compound was found in the blank and sample

H = Sample was prepped or anlayzed beyond the specified holding time

						_	HYDF	ROCARBC	NS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	E	X	Naph
			MTCA Method	l A Cleanu	p Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-1	08/20/01	NS												
MW-1	03/25/02	Ν						274	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-1	06/04/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	08/20/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	10/29/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	02/19/03	Ν						9,310	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	02/19/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	06/05/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	09/09/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	12/10/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	06/03/04	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	12/01/04	Ν						<250	<500	3.6	<2.0	1.5	2.0	<20
MW-1	06/03/05	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	11/21/05	NS												
MW-1	06/15/06	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	12/19/06	NS												
MW-1	05/30/07	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-1	10/30/07	NS												
MW-1	06/24/08	NS												
MW-1	12/03/08	Ν					<50	<29	<68	<0.50	<0.7	<0.80	<0.80	<1.0
MW-1	06/03/09	Ν					<13	<35	<58	<0.12	<0.21	<0.20	<0.15	
MW-1	11/10/09	Ν					<50	80	<383	<1.0M0	<1.0	<1.0	<3.0	<1.0
MW-1	02/02/10	Ν					<50	<77	<385	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	05/18/10	Ν					<50	<76	<379	<1.0	<1.0	<1.0	<3.0	<1.0

						-	HYDF	ROCARBC	DNS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
			MTCA Method	A Cleanu	p Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-1	08/09/10	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	
MW-1	11/01/10	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-1	02/02/11	Ν					<50	<77	<385	<1.0	<1.0	<1.0	<3.0	
MW-1	04/26/11	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-1	07/12/11	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	
MW-1	10/27/11	Ν					<50	<78	<390	<1.0	< 1.0	<1.0	<3.0	
MW-1	10/27/11	FD					<50	<78	<390	<1.0	<1.0	<1.0	<3.0	
MW-1	07/02/12	Ν	2,354.55	31.90		2322.65	<50	<86	<430	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	07/02/12	FD					<50	<82	<410	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	10/10/12	Ν	2,354.55	36.02		2318.53	<50	<160	<810	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	10/10/12	FD					<50	<160	<800	<1.0	<1.0	<1.0	<3.0	<1.0
MW-1	03/13/13	FD					<100	<460	<460	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	05/15/13	Ν	2,354.55	32.62		2321.93	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	05/15/13	FD					<100	<390	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	08/06/13	Ν	2,354.55	34.22		2320.38	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	08/06/13	FD					<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	10/11/13	Ν	2,354.60	35.79		2318.81	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	10/11/13	FD					<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	03/11/14	Ν	2,354.60	35.45		2319.15	<100	<400	500	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	06/03/14	Ν	2,354.60	33.90		2320.70	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	06/03/14	FD					<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-1	04/06/17	Ν	2,354.60	27.10		2327.50	<50	<29	<68	<0.5	<0.5	<0.5	<0.5	<1.0
MW-1	09/14/17	Ν	2,354.60	33.15		2,321.45	<250	<110	<270	<1	<1	<1	<1	<4
MW-1	03/21/18	NS	2354.60	29.56		2325.04								

						-	HYDI	ROCARBC	DNS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
			MTCA Method	A Cleanu	p Levels (	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-1	06/21/18	NS	2354.60	30.57		2324.03								
MW-1	09/21/18	NS	2354.60	33.80		2320.80								
MW-1	12/06/18	NS	2354.60	35.37		2319.23								
MW-1	03/06/19	NS	2354.60	32.63		2321.97								
MW-1	05/21/19	NS	2354.60	30.75		2323.85								
MW-1	08/21/19	NS	2354.60	33.25		2321.35								
MW-1	10/30/19	NS	2354.60	34.69		2319.91								
MW-1	03/05/20	NS	2354.60	31.13		2323.47								
MW-1	06/03/20	NS	2354.60	31.99		2322.61								
MW-1	09/03/20	NS	2354.60	33.80		2320.80								
MW-5D	10/11/13	Ν	2,355.03	35.57		2319.46	614	1,100	<450	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5D	03/11/14	Ν	2,355.03	35.48		2319.55	<100	<400	700	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5D	06/03/14	Ν	2,355.03	33.73		2321.30	128	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-5D	09/14/17	Ν	2,355.03	32.48		2,322.55	<250	560	<250	<1	<1	<1	<1	<4
MW-5D	03/21/18	Ν	2355.03	29.02		2326.01	69 J	370	<260					
MW-5D	03/21/18	FD	2355.03	29.02		2326.01	57 J	1,600 *	2,400 *					
MW-5D	06/21/18	Ν	2355.03	30.01		2325.02	<250	670	<260					
MW-5D	09/21/18	Ν	2355.03	33.51		2321.52	81 J	160	<280					
MW-5D	09/21/18	FD	2355.03	33.51		2321.52	<250	220	<270					
MW-5D	12/06/18	Ν	2355.03	35.21		2319.82	<250	72 J	<260					
MW-5D	03/06/19	Ν	2355.03	32.46		2322.57	<250	110	<260					
MW-5D	05/21/19	Ν	2355.03	30.46		2324.57								
MW-5D	08/21/19	Ν	2355.03	32.94		2322.09	<250	220	<260					

						_	HYDF	ROCARBO	DNS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
		I	MTCA Method	I A Cleanup	Levels	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-5D	08/21/19	FD	2355.03	32.94		2322.09	<250	250	<260					
MW-5D	10/30/19	Ν	2355.03	34.50		2320.53	<250	130	<270					
MW-5D	03/05/20	Ν	2355.03	30.94		2324.09	<250	78 J	<260	<1	<1	<1	<6	
MW-5D	06/03/20	Ν	2355.03	31.80		2323.23	<250	390 H	120 J H	<1.0	<1.0	<1.0	<6.0	
MW-5D	09/03/20	Ν	2355.03	33.52		2321.51	45 J	250	<260	<1.0	<1.0	<1.0	<6.0	
MW-5D Dup	09/03/20	FD	2355.03	33.52		2321.51	33 J	240	<270	<1.0	<1.0	<1.0	<6.0	
MW-6	08/20/01	NS												
MW-6	03/25/02	Ν						<250	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-6	06/04/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	08/20/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	10/29/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	02/19/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	06/05/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	09/09/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	12/10/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	06/03/04	NS												
MW-6	12/01/04	NS												
MW-6	06/03/05	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	11/21/05	NS												
MW-6	06/15/06	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	12/19/06	NS												
MW-6	05/30/07	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-6	10/30/07	NS												

						_	HYDF	ROCARBC	DNS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	E	X	Naph
			MTCA Method	A Cleanu	p Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-6	06/24/08	Ν					<50	<75	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-6	12/03/08	NS												
MW-6	06/03/09	Ν					<13	<35	<58	<0.12	<0.21	<0.20	<0.15	
MW-6	11/10/09	Ν					<50	135	<396	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	02/02/10	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	05/18/10	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	08/09/10	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	
MW-6	11/01/10	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-6	02/02/11	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	
MW-6	04/26/11	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-6	07/12/11	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	
MW-6	10/27/11	Ν					<50	<78	<390	<1.0	<1.0	<1.0	<3.0	
MW-6	07/02/12	Ν	2,355.87	32.83		2323.04	<50	<82	<410	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	10/09/12	Ν	2,355.87	35.71		2320.16	<50	<160	<800	<1.0	<1.0	<1.0	<3.0	<1.0
MW-6	03/13/13	Ν	2,355.87	32.45		2323.42	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	05/15/13	Ν	2,355.87	33.07		2322.80	<100	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0 UJ
MW-6	08/06/13	Ν	2,355.87	34.91		2321.02	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	10/11/13	Ν	2,355.93	38.50		2317.43	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	03/11/14	Ν	2,355.93	36.59		2319.34	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	06/03/14	Ν	2,355.93	34.65		2321.28	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-6	04/03/17	Ν	2,355.93	27.98		2327.95	<50	<30	<70	<0.5	<05	<0.5	<0.5	<1.0
MW-6	09/14/17	Ν	2,355.93	33.26		2,322.67	<250	<110	<260	<1	<1	<1	<1	<4
MW-6	03/21/18	NS	2355.93	30.08		2325.85								
MW-6	06/21/18	NS	2355.93	30.93		2325.00								

							HYDF	ROCARBO	NS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
			MTCA Method	l A Cleanu	b Levels (	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-6	09/21/18	NS	2355.93	34.40		2321.53								
MW-6	12/06/18	NS	2355.93	36.13		2319.80								
MW-6	03/06/19	NS	2355.93	33.36		2322.57								
MW-6	05/21/19	NS	2355.93	31.18		2324.75								
MW-6	08/21/19	NS	2355.93	33.84		2322.09								
MW-6	10/30/19	NS	2355.93	35.45		2320.48								
MW-6	03/05/20	NS	2355.93	31.70		2324.23								
MW-6	06/03/20	NS	2355.93	32.64		2323.29								
MW-6	09/03/20	NS	2355.93	34.43		2321.50								
MW-7	08/20/01	NS												
MW-7	03/25/02	Ν						6,280	<750	<0.50	<2.0	<1.0	25	154
MW-7	06/04/02	Ν						13,100	<500	<0.50	<2.0	<1.0	14	221
MW-7	08/21/02	Ν						6,850	<500	<0.50	<2.0	<1.0	<1.5	65
MW-7	08/21/02	Ν						6,100	<500	0.82	4.0	1.9	13	92
MW-7	10/29/02	Ν						5,460	<500	0.70	<2.0	<1.0	9	172
MW-7	02/19/03	Ν						7,390	<500	<0.50	<2.0	<1.0	6	<20
MW-7	06/05/03	Ν						770	<500	0.99	<2.0	<1.0	<1.5	<20
MW-7	09/09/03	NS												
MW-7	09/11/03	Ν						1,250	<500	<0.50	<2.0	4.7	30	81
MW-7	12/10/03	Ν						7,120	<500	<0.50	<2.0	1.2	15	114
MW-7	06/03/04	Ν						1,000	<500	<0.50	<2.0	<1.0	<1.5	48
MW-7	12/01/04	Ν						1540	<500	<0.50	<2.0	<1.0	<1.5	21
MW-7	06/03/05	Ν						830	<500	<0.50	<2.0	<1.0	<1.5	24

						-	HYDF	ROCARBO	NS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	E	X	Naph
			MTCA Method	A Cleanu	p Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-7	11/21/05	Ν						2,970	<500	<0.50	<2.0	<1.0	<1.5	48
MW-7	06/15/06	Ν						1,410	<500	<0.50	<2.0	<1.0	<1.5	23
MW-7	12/19/06	Ν						1,300	<500	<0.50	6.42	2.74	9.43	24
MW-7	05/30/07	Ν						961	<500	0.71	<2.0	<1.0	<1.5	<20
MW-7	10/30/07	Ν					2,700	14,000	<4,700	<0.50	<0.70	<0.80	<0.80	<1.0
MW-7	06/24/08	Ν					1,600	1,200	<95	<0.50	<0.70	<0.80	<0.80	<1.0
MW-7	12/04/08	N					1,400	<29	<68	<0.50	<0.70	<0.80	<0.80	<1.0
MW-7	06/04/09	N					155	560	<58	<0.12	<0.21	<0.20	<0.15	
MW-7	11/10/09	N					577	7,600	<388	<1.0	<1.0	<1.0	<3.0	2.7
MW-7	02/02/10	N					214	2,000	<377	<1.0	<1.0	<1.0	<3.0	2.4
MW-7	05/18/10	N					717	16,900	<400	<1.0	<1.0	<1.0	<3.0	<1.0
MW-7	08/09/10	N					928	22,100	<388	<1.0	<1.0	<1.0	<3.0	
MW-7	11/01/10	N					3,130	28,300	<388	<1.0	<1.0	<1.0	<3.0	
MW-7	02/02/11	N					704	10,700	<392	<1.0	<1.0	<1.0	<3.0	
MW-7	04/26/11	N					5,710	3,690	<400	<1.0	<1.0	<1.0	<3.0	
MW-7	07/12/11	N					278	2,540	<392	<1.0	<1.0	<1.0	<3.0	
MW-7	10/26/11	N					2,420	37,200	<380	<1.0	<1.0	<1.0	<3.0	
MW-7	07/02/12	N	2,356.25	31.84		2324.41	<50	78	<380	<1.0	<1.0	<1.0	<3.0	<1.0
MW-7	10/10/12	N	2,356.25	35.24		2321.01	207	350	<820	<1.0	<1.0	<1.0	<3.0	5.4
MW-7	03/13/13	N	2,356.25	31.94		2324.31	104	<440	<440	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	05/14/13	N	2,356.25	32.74		2323.51	< 100	<390	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	08/06/13	Ν	2,356.25	34.54		2321.77	250	<420	<420	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	10/12/13	Ν	2,356.31	36.11		2320.20	410	600	< 450	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	03/11/14	Ν	2,356.31	35.62		2320.69	448	430	550	<1.0	<1.0	<1.0	<3.0	<4.0

Sample ID Date						HYE	DROCARBOI	VS		PRIMA	RY VOCs			
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
			MTCA Method	A Cleanu	b Levels (	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-7	06/04/14	Ν	2,356.31	34.37		2321.94	201	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-7	04/05/17	NS	2,356.31	26.25		2330.06	ORC sock	stuck in well	- unable to	sample				
MW-7	09/14/17	NS	2,356.31	33.17		2,323.14	ORC sock	stuck in well	- unable to	sample				
MW-7	03/21/18	NS	2356.31	29.59		2326.72	ORC sock	stuck in well	- unable to	sample				
MW-7	06/21/18	NS	2356.31	30.76		2325.55	ORC sock	stuck in well	- unable to	sample				
MW-7	09/21/18	NS	2356.31	34.13		2322.18	ORC sock	stuck in well	- unable to	sample				
MW-7	12/06/18	NS	2356.31	36.09		2320.22								
MW-7	03/06/19	NS	2356.31	33.05		2323.26								
MW-7	05/21/19	NS	2356.31	31.00		2325.31								
MW-7	08/21/19	Ν	2356.31	33.67		2322.64	180 J	240	<310					
MW-7	10/30/19	Ν	2356.31	35.36		2320.95	190 J	1,000	<260					
MW-7	03/05/20	Ν	2356.31	31.54		2324.77	51 J	190	<270	<1	<1	<1	<6	
MW-7	06/03/20	Ν	2356.31	32.67		2323.64	95 J	400 H	<300 H	<1.0	<1.0	<1.0	<6.0	
MW-7	06/03/20	FD	2356.31	32.67		2323.64	60 J	270 H	<250 H	<1.0	<1.0	<1.0	<6.0	
MW-7	09/03/20	Ν	2356.31	34.33		2321.98	89 J	570	<270	<1.0	<1.0	<1.0	<6.0	
MW-8	08/20/01	NS												
MW-8	03/25/02	Ν						<250	<750	<0.50	<2.0	<1.0	<1.5	<20
MW-8	06/04/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	08/21/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	10/29/02	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	02/19/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	06/05/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	09/09/03	NS												

							HYDI	ROCARBC	NS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
			MTCA Method	A Cleanu	b Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-8	09/11/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	12/10/03	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	06/03/04	NS												
MW-8	12/01/04	NS												
MW-8	06/03/05	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	11/21/05	NS												
MW-8	06/15/06	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	12/19/06	NS												
MW-8	05/30/07	Ν						<250	<500	<0.50	<2.0	<1.0	<1.5	<20
MW-8	10/30/07	NS												
MW-8	06/24/08	Ν					<50	<75	<94	<0.50	<0.70	<0.80	<0.80	<1.0
MW-8	12/04/08	Ν					<50	35,000	<3,500	<0.50	<0.70	<0.80	<0.80	<1.0
MW-8	06/04/09	Ν					<13.4	<36	<59	<0.12	<0.21	<0.20	<0.15	
MW-8	11/10/09	Ν					<50	<79	<396	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	02/02/10	Ν					<50	<76	<381	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	05/18/10	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	08/09/10	Ν					<50	<79	<396	<1.0	<1.0	<1.0	<3.0	
MW-8	11/01/10	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-8	02/02/11	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
MW-8	04/26/11	Ν					<50	<80	<400	<1.0	<1.0	<1.0	<3.0	
MW-8	07/12/11	Ν					<50	<77	<385	<1.0	<1.0	<1.0	<3.0	
MW-8	10/26/11	Ν					<50	<76	<380	<1.0	<1.0	<1.0	<3.0	
MW-8	07/02/12	Ν	2,356.57	32.36		2324.21	<50	<86	<430	<1.0	<1.0	<1.0	<3.0	<1.0
MW-8	10/10/12	Ν	2,356.57	35.56		2321.01	<50	<170	<830	<1.0	<1.0	<1.0	<3.0	<1.0

Sample ID Date						HYDF	ROCARBO	NS		PRIMA	RY VOCs			
	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	E	Х	Naph
		Ν	MTCA Method	l A Cleanu	b Levels (	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-8	03/13/13	Ν	2,356.57	32.66		2323.91	<100	<440	<440	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	05/14/13	Ν	2,356.57	33.12		2323.45	<100	<390	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	08/06/13	Ν	2,356.57	34.83		2321.77	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	10/12/13	Ν	2,356.60	36.36		2320.24	<100	<430	<430	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	03/11/14	Ν	2,356.60	36.98		2319.62	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	06/04/14	Ν	2,356.60	34.75		2321.85	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
MW-8	04/05/17	Ν	2,356.60	29.20		2327.40	<50	<30	<69	<0.5	<0.5	<0.5	<0.5	<1.0
MW-8	09/14/17	Ν	2,356.60	33.04		2,323.56	<250	<100	<250	<1	<1	<1	<1	<4
MW-8	03/21/18	NS	2356.60	30.79		2325.81								
MW-8	06/21/18	NS	2356.60	31.11		2325.49								
MW-8	09/21/18	NS	2356.60	34.24		2322.36								
MW-8	12/06/18	NS	2356.60	36.15		2320.45								
MW-8	03/06/19	NS	2356.60	33.58		2323.02								
MW-8	05/21/19	NS	2356.60	31.44		2325.16								
MW-8	08/21/19	NS	2356.60	33.42		2323.18								
MW-8	10/30/19	NS	2356.60	35.39		2321.21								
MW-8	03/05/20	NS	2356.60	31.98		2324.62								
MW-8	06/03/20	NS	2356.60	33.18		2323.42								
MW-8	09/03/20	NS	2356.60	35.20		2321.40								

95-MW-11A				re	moved	from sampling	schedul	e due to well o	obstructior	n				
95-MW-11A	02/02/11	NS	2,357.25	Obstruction	n in Wel	ll at 3.25 Feet					 	 		
95-MW-11A	04/26/11	NS	2,357.25	Obstructior	n in Wel	ll at 3.25 Feet					 	 		
95-MW-11A	09/14/17	NS	2,357.25	34.47		2,322.78					 	 		
						_	HYDF	ROCARBO	ONS		PRIMAI	RY VOCs		
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Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
		I	MTCA Method	I A Cleanup	Levels (	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-11A	03/21/18	NS	2357.25	30.76		2326.49								
95-MW-11A	06/21/18	NS	2357.25	31.98		2325.27								
95-MW-11A	09/21/18	NS	2357.25	35.48		2321.77								
95-MW-11A	12/06/18	NS	2357.25	37.18		2320.07								
95-MW-11A	03/06/19	NS	2357.25	34.11		2323.14								
95-MW-11A	05/21/19	NS	2357.25	32.07		2325.18								
95-MW-11A	08/21/19	NS	2357.25	34.87		2322.38								
95-MW-11A	10/30/19	NS	2357.25	36.47		2320.78								
95-MW-11B	08/20/01	NS												
95-MW-11B	03/25/02	NS												
95-MW-11B	06/04/02	NS												
95-MW-11B	10/29/02	NS												
95-MW-11B	02/19/03	NS												
95-MW-11B	06/05/03	NS												
95-MW-11B	09/09/03	NS												
95-MW-11B	12/10/03	NS												
95-MW-11B	06/03/04	NS												
95-MW-11B	12/01/04	NS												
95-MW-11B	06/03/05	NS												
95-MW-11B	11/21/05	NS												
95-MW-11B	06/15/06	NS												
95-MW-11B	12/19/06	NS												
95-MW-11B	05/30/07	NS												

						_	HYDF	ROCARBO	NS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
		I	MTCA Method	A Cleanup	p Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-11B	10/30/07	NS												
95-MW-11B	06/24/08	NS												
95-MW-11B	12/03/08	NS												
95-MW-11B	06/03/09	N					<13	<35	<58	<0.12	<0.21	<0.20	<0.15	
95-MW-11B	11/10/09	N					<50	144	<381	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	02/02/10	N					<50	<76	<381	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	05/18/10	Ν					<50	<77	<385	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	08/09/10	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	
95-MW-11B	11/01/10	Ν					<50	<78	<388	<1.0	<1.0	<1.0	<3.0	
95-MW-11B	02/02/11	Ν					<50	<79	<396	<1.0	<1.0	<1.0	<3.0	
95-MW-11B	04/26/11	Ν					<50	<80	<400	<1.0	<1.0	<1.0	<3.0	
95-MW-11B	07/12/11	Ν					<50	<78	<392	<1.0	<1.0	<1.0	<3.0	
95-MW-11B	10/26/11	N					<50	<75	<380	<1.0	<1.0	<1.0	<3.0	
95-MW-11B	07/02/12	Ν	2,357.78	33.82		2323.96	<50	<77	<380	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	10/10/12	Ν	2,357.78	37.18		2320.60	<50	<160	<810	<1.0	<1.0	<1.0	<3.0	<1.0
95-MW-11B	03/13/13	Ν	2,357.78	33.67		2324.11	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	05/14/13	Ν	2,357.78	34.52		2323.26	<100	<450	<450	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	08/06/13	Ν	2,357.78	36.34		2321.51	<100	<380	<380	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	10/12/13	Ν	2,357.85	37.96		2319.89	<100	<410	<410	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	03/12/14	Ν	2,357.85	38.10		2319.75	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	06/04/14	Ν	2,357.85	35.97		2321.88	<100	<400	<400	<1.0	<1.0	<1.0	<3.0	<4.0
95-MW-11B	04/05/17	Ν	2,357.85	28.38		2329.47	<50	<30	<70	<0.5	<0.5	<0.5	<0.5	<1.0
95-MW-11B	09/14/17	Ν	2,357.85	34.78		2,323.07	<250	<110	<260	<1	<1	<1	<1	<4
95-MW-11B	03/21/18	NS	2357.85	31.19		2326.66								

						-	HYD	ROCARBC	NS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
		I	MTCA Method	I A Cleanup	b Levels (	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-11B	06/21/18	NS	2357.85	32.27		2325.58								
95-MW-11B	09/21/18	NS	2357.85	34.76		2323.09								
95-MW-11B	12/06/18	NS	2356.71	36.51		2320.20								
95-MW-11B	03/06/19	NS	2356.71	33.42		2323.29								
95-MW-11B	05/21/19	NS	2356.71	31.40		2325.31								
95-MW-11B	08/21/19	NS	2356.71	34.13		2322.58								
95-MW-11B	10/30/19	NS	2356.71	35.92		2320.79								
M\\\/_12	10/30/19	NS		34.46										
MW-12	03/05/20	N	2354 82	31 10		2344 52	<250	<100	<260	<1	<1	<1	<6	
	06/03/20	N	2004.02	21.04		2077.02	<250	<100 <110 H	-200 ∠270 H	<10	<1.0	<1.0	<6.0	
1/1/12	00/03/20	IN N	2304.02	31.94		2322.00	~250	<110	~200	<1.0	<1.0	<1.0	<6.0	
10100-12	09/03/20	IN	2004.02	55.57		2321.23	24 J	<110	~290	<1.0	<1.0	<1.0		
95-MW-12A	08/20/01	NS												
95-MW-12A	03/25/02	NS												
95-MW-12A	06/04/02	NS												
95-MW-12A	10/29/02	NS												
95-MW-12A	02/19/03	NS												
95-MW-12A	06/05/03	NS												
95-MW-12A	09/09/03	NS												
95-MW-12A	12/10/03	NS												
95-MW-12A	06/03/04	NS												
95-MW-12A	12/01/04	NS												
95-MW-12A	06/03/05	NS												

						_	HYDF	ROCARBC	ONS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	тос	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	E	X	Naph
		I	MTCA Method	A Cleanup	b Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-12A	11/21/05	NS												
95-MW-12A	06/15/06	NS												
95-MW-12A	12/19/06	NS												
95-MW-12A	05/30/07	NS												
95-MW-12A	10/30/07	NS												
95-MW-12A	06/24/08	NS												
95-MW-12A	12/03/08	NS												
95-MW-12A	06/03/09	Ν					<13	<35	<58	<0.12	<0.21	<0.20	<0.15	
95-MW-12A	07/02/12	NS	2,355.12	31.23		2323.89								
95-MW-12A	10/09/12	NS	2,355.12	34.66		2320.46								
95-MW-12A	03/12/13	NS	2,355.12	30.97		2324.15								
95-MW-12A	05/14/13	NS	2,355.12	32.00		2323.12								
95-MW-12A	08/05/13	NS	2,355.12	33.74		2321.48								
95-MW-12A	10/18/13	NS	2,355.22	35.36		2319.86								
95-MW-12A	03/11/14	NS	2,355.22	35.02		2320.20								
95-MW-12A	06/02/14	NS	2,355.22	33.38		2321.84								
95-MW-12A	04/03/17	NS	2,355.22	25.76		2329.46								
95-MW-12A	09/14/17	NS	2,355.22	32.27		2,322.95								
95-MW-12A	03/21/18	NS	2355.22	23.53		2331.69								
95-MW-12A	06/21/18	NS	2355.22	29.80		2325.42								
95-MW-12A	09/21/18	NS	2355.22	33.28		2321.94								
95-MW-12A	12/06/18	NS	2355.22	34.91		2320.31								
95-MW-12A	03/06/19	NS	2355.22	31.85		2323.37								
95-MW-12A	05/21/19	NS	2355.22	29.86		2325.36								

						-	HYDF	ROCARBC	NS		PRIMA	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
			MTCA Method	A Cleanup	b Levels (	(Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-12A	08/21/19	NS	2355.22	32.66		2322.56								
95-MW-12A	10/30/19	NS	2355.22	34.36		2320.86								
95-MW-12B	08/20/01	NS												
95-MW-12B	03/25/02	NS												
95-MW-12B	06/04/02	NS												
95-MW-12B	10/29/02	NS												
95-MW-12B	02/19/03	NS												
95-MW-12B	06/05/03	NS												
95-MW-12B	09/09/03	NS												
95-MW-12B	12/10/03	NS												
95-MW-12B	06/03/04	NS												
95-MW-12B	12/01/04	NS												
95-MW-12B	06/03/05	NS												
95-MW-12B	11/21/05	NS												
95-MW-12B	06/15/06	NS												
95-MW-12B	12/19/06	NS												
95-MW-12B	05/30/07	NS												
95-MW-12B	10/30/07	NS												
95-MW-12B	06/24/08	NS												
95-MW-12B	12/03/08	NS												
95-MW-12B	06/03/09	Ν					<13	<35	<58	<0.12	<0.21	<0.20	<0.15	
95-MW-12B	07/02/12	NS	2,355.02	30.85		2324.17								
95-MW-12B	10/09/12	NS	2,355.02	34.24		2320.78								

						_	HYDROCARBONS			PRIMARY VOCs				
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	E	X	Naph
		ſ	MTCA Method	A Cleanup	b Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
95-MW-12B	03/12/13	NS	2,355.02	30.72		2324.30								
95-MW-12B	05/14/13	NS	2,355.02	31.56		2323.46								
95-MW-12B	08/05/13	NS	2,355.02	33.36		2321.73								
95-MW-12B	10/18/13	NS	2,355.09	35.00		2320.09								
95-MW-12B	03/11/14	NS	2,355.09	34.99		2320.10								
95-MW-12B	06/02/14	NS	2,355.09	33.03		2322.06								
95-MW-12B	04/03/17	NS	2,355.09	26.35		2328.74								
95-MW-12B	09/14/17	NS	2,355.09	31.76		2,323.33								
95-MW-12B	03/21/18	NS	2355.09	28.18		2327.91								
95-MW-12B	06/21/18	NS	2355.09	29.22		2325.87								
95-MW-12B	09/21/18	NS	2355.09	32.81		2322.28								
95-MW-12B	12/06/18	NS	2355.09	34.55		2320.54								
95-MW-12B	03/06/19	NS	2355.09	32.62		2322.47								
95-MW-12B	05/21/19	NS	2355.09	29.45		2325.64								
95-MW-12B	08/21/19	NS	2355.09	32.15		2322.94								
95-MW-12B	10/30/19	NS	2355.09	33.87		2321.22								

#### Summary of Groundwater Monitoring Data - Intermediate Wells Yellowstone Pipeline Geiger Correctional Facility Spokane, Washington

							HYDF	ROCARBO	NS		PRIMAI	RY VOCs		
Sample ID	Date	Sample Type	TOC	DTW	SPH	GWE	TPHg	TPHd	TPHo	В	Т	Е	X	Naph
			MTCA Metho	d A Cleanu	p Levels (	Deep GW)	1000/800	500	500	5	1000	700	1000	160
							ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

#### Notes:

DTW = Depth to Water in feet

GWE = Groundwater Elevation in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

TOC = Top of Casing in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

All results are in micrograms per liter ( $\mu$ g/L) unless otherwise indicated

TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH---Gx unless otherwise noted. The higher value is based on the assumption that

no benzene is present in the groundwater sample. If any detectable amount of benzene is present in the groundwater sample, then the lower TPHg cleanup level is applicable

TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH---Dx with silica gel cleanup unless otherwise noted.

TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH---Dx with silica gel cleanup unless otherwise noted.

VOCs = Volatile organic compounds

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.

Total Xylenes = o---xylene + m,p---xylene

FD = Field duplicate

N = Normal

NS = Not sampled

NM = Not measured

J = Concentration is between the method detection limit (MDL) and the limit of quantitation (LOQ) and is therefore estimated.

B = Compound was found in the blank and sample

H = Sample was prepped or anlayzed beyond the specified holding time

--- = Not analyzed

Concentrations in bold type indicate the analyte was detected above the Model Toxics Control Act (MTCA) Method A cleanup level

\* = Field duplicate concentration is not consistent with the "parent" sample; therefore, this data is considered anomalous.



GHD | 2020 Annual Groundwater Monitoring Report | 11226610 (1)

# Appendix A Field Data Sheets



Page \_\_\_\_ of \_\_\_\_

## DAILY FIELD REPORT

Project Number: 11143847	Date: 3/5/20	Site Address:
Project Name: Geiner Corhelhows I	Field Technician: D. T. Jun	GHD PM: M. MANSOON
Weather: 39° Osunny	HSE Meeting Conducted: K Yes	
Equipment ID (GHD or rented):	Calibrated Complete	d: ∕I Yes □ No □ NA
	Documented below of	or "D" form attached: 🗗 Yes 🛛 No 🖾 NA
	Calibration certificate	e for rental attached: 🖓 Yes 🗆 No 🗆 NA

Time	Activity/Comments
0700 -	ONSIFE DT/JL
	get be visitor badge ( check in w/warder
	Act Access to ferred in Arela
	HES FAILQATE Swelly [ MASP review.
	brigin grundeng stells, see Diska Sheet
1.10	Sample monthan wells. See purgetonns
1212 -	DONC SAMPLING
	- only up of the control and a deport sile
1201) -	Buy ice park all samples (3 siles) Fill but coc's
- 1000 -	JRIL DEPART to SUNTILE
1330 -	OF Ship samples of provit feder
r	of to holy termined.
1415	-check its operators.
	- lord All earphent ( clean bionerst Shed
1975 -	GAD OFFSTER TO MOREL FINISH NOFES

### Well Gauging Details Phillips 66 RM Site No. 6880 Geiger Corrections Center Spokane, Washington

		Well	Well	Screen	Screened		Sump				1.0.5.	
Woll ID	Date	Diameter (inches)	Depth	Length (ft)	Interval	Screen	Length (ft)	Date	DTW (ft BTOC)	DTP (ft BTOC)	DTB (ft BTOC)	Sample ID
VVento	mstaneu	(inches)	(it broc)	(10)		5101 5120	(10)			1		
MP-1	2001	2	8.5	5	3.5-8.5	0.02	0.5	Apro	VGONE	0		
MP-1R	2013	2	13.5	10	3.5-13.5	0.02	0.5	3/5/20	4.21		1	GW-11145847-230520-JRL- MPIR
MW-1	2002	2	50.15	25	24.7-49.7	0.02	0.5	3/5/20	31.13			NO SAMPLE
MW-2	2002	2	14	10	3.5-13.5	0.02	0.5	3/5/20	4:65		_	Gw-11145847-030520-)RL-11142
MW-3	2002	2	14	10	3.5-13.5	0.02	0.5	)	~			
MW-4	2002	2	13.51	10	3.0-13.0	0.02	0.5	3/5/20	5.69			
MW-5	2002	2	13.34	10	2.8-12.8	0.02	0.5	3/5/20	4.62			
MW-5D	2013	2	45	20	25.0-45.0	0.02	0.5	3/5/20	30.94			
MW-6	2002	2	41.52	20	21.0-41.0	0.02	0.5	3/5/20	31.7			
MW-7	2002	2	44.74	20	24.2-44.2	0.02	0.5	3/5/20	31.54			
MW-8	2002	2	47.12	20	26.6-46.6	0.02	0.5	3/5/20	31.98			
MW-10	2019	2	15	12	3.0-15.0	0.01	0.5	3/5/20			15.87	DRY
MW-11	2019	2	15	12	3.0-15.0	0.01	0.5	3/5/20	11.73		14157	
MW-12	2019	2	49	25	24.0-49.0	0.01	0.5	3/5/20	10.30			
95-MW-11A	1990	2	99.5	10	84.95-94.5	0.01	5					
95-MW-11B	1990	2	49.05	20	24.7-44.7	0.01	5.25					
95-MW-12A	1990	2	81	10	68.1-78.1	0.01	2.25					
95-MW-12B	1990	2	49.72	20	25.0-45.0	0.01	5.25					
	Gauge all	wells on-Sit	e							1		

8

Sample 2020

Notor
Notes
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Monitoring	Well	Record	for	Low		ırging	
					(Em	SP-09)	

Project Data:	Project Name: Ref. No.:	GREIGER	. CERERETIC 15847	),(J)4 <b>C</b>		Date: Personnel:	3/5/2	io				
Monitoring Wel	II Data: Well No.:	Mw-	2		aturated Serect	-	Ju					
Va Mea Constructed W	pour PID (ppm): surement Point: /ell Depth (m/ft):	Tec		5	aturated Screen L Depth to Pump In Well Diamete	engtn (m/π): take (m/ft) <sup>(1)</sup> : er, D (cm/in):	21	• •			-	
Measured W Depth of	/ell Depth (m/ft): Sediment (m/ft):				Well Screen Volu Initial Depth to	Ime, V <sub>s</sub> (L) <sup>(2)</sup> : Water (m/ft):	ý.4	5			-	
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L) +10 %	pH	ORP (mV) +10 mV	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>	
0910	Vir approximation provide a star house a star	Preci	SION Required	 	±0.005 OF 0.01**			20.1 01113	2.0111		10000/00000000000000000000000000000000	
0912	12.0	4.1.1a		9,66	01396	9.46	Constantion of the	7.601	-78.7			
0920	120	4.60		9.69	0:399	11.98		7.57	-71,3			
0925	120	4.66		9.68	0,402	4.80	The second se	7.54	-22.0			
0930	120	4.60	·	9,64	01406	4.82		7,52	-5017			
0935	120	4.65		9,67	0 : 407	4,60		7.52	-54.3			
		-										
	2								C.10	<u> </u> /		Thetar
Sample ID:	6w - 0	90340 11	<u> 145847 - 03</u>	0320 - MU	- MWS	_ s	ample Time	: <u> </u>	940	2 6	Jup was	MARCEN
Notes: 🐴	Do" MRTR	e is r	NOT READ	ing Corr	RCTLY-						HRRE	
(1) (2)	The pump intake The well screen For Imperial uni	e will be placec volume will be ts, V <sub>s</sub> =π*(r²)*L*	l at the well screen based on a 1.52 r (2.54) <sup>3</sup> , where r a	n mid-point or at metres (5-foot) s and L are in inch	a minim∜m of 0.6 r creen length (L). F es	n (2 ft) above : or metric units	any sedimen , V <sub>s</sub> =л*(r <sup>2</sup> )*L	t accumulated _ in mL, where	d at the well bo e r (r=D/2) and	ottom. Lare in cm.	<ul> <li>Methods and end of the second sec second second sec</li></ul>	99999999999999999999999999999999999999
(3) (4)	The drawdown f Purging will con and appears to	rom the initial v tinue until stab be clearing, or	water level should ilization is achieve unless stabilizatio	not exceed 0.1 r d or until 20 well n parameters ar = \/p/\/s	n (0.3 ft). The pur screen volumes ha e varying slightly ou	iping rate shou ave been purg- itside of the st	Ild not excee ed (unless pu abilization cri	d 500 mL/mir urge water rer iteria and app	n. mains visually ear to be	turbid		
(5)	For conductivity	, the average v	value of three read	ings <1 mS/cm :	±0.005 mS/cm or w	here conductiv	rity >1 mS/cr	m ±0.01 mS/c	m.			

Project Data:	Project Name:	GREIGRA	CORPER	TIONS		Date:	3/3	-/20			<del></del>
	Ref. No.:	111	45847			Personnel:		,			
Monitoring We Va Mea Constructed W Measured W Depth of	Il Data: Well No.: pour PID (ppm): surement Point: /ell Depth (m/ft): /ell Depth (m/ft): Sediment (m/ft):	МШ - ТОС 14,	j1 57	S	aturated Screen L Depth to Pump Int Well Diamete Well Screen Volu Initial Depth to	ength (m/ft): take (m/ft) <sup>(1)</sup> : er, D (cm/in): ime, V <sub>s</sub> (L) <sup>1,*</sup> : Water (m/ft):		13			
Time 10 <b>30</b> 1035 1040 1045 1050	Pumping Rate (mL/min) /20 /00 /00	Depth to Water (m/ft) Preci 12,500 13,92 13,92 14,10 14,25 DR2	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft) sion Required <sup>(5)</sup> :	Temperature °C ±3 % 9, 86 9,93 9,34 9,39	Conductivity (mS/cm) ±0.005 or 0.01 <sup>(6)</sup> 5,525 5;571 5;571 5;766 5;768	Turbidity NTU ±10 % 2:52 2:33 12:1	DO (mg/L) ±10 %	pH ±0.1 Units 6,72 6,98 6,97 6,97 6,75	ORP (mV) ±10 mV 40,5 38,1 38,8 40,0	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
Sample ID: Notes: <i>jHAL</i> (1) (2) (3) (4) (5)	Gw - 11145 Te $CE7The pump intakeThe well screenFor Imperial unitThe drawdown fPurging will contand appears to Istabilizing), No.For conductivity$	g47 - 03 core will be placed volume will be s, V <sub>s</sub> = $\pi$ *(r <sup>2</sup> )*L* rom the initial v inue until stab be clearing, or of Well Screen , the average v	D520 - JW <i>CreceHARGH</i> I at the well screen based on a 1.52 r (2.54) <sup>3</sup> , where r water level should ilization is achieve unless stabilization Volumes Purged value of three read	TO SHAW mid-point or at a metres (5-foot) so and L are in inche not exceed 0.1 m d or until 20 well n parameters are = Vp/Vs. ings <1 mS/cm ±	MILL. a minimum of 0.6 m creen length (L). Fo es n (0.3 ft). The pum screen volumes ha e varying slightly ou c0.005 mS/cm or wl	n (2 ft) above a or metric units, ping rate shou ave been purge tside of the sta here conductiv	ample Time $V_s=\pi^*(r^2)^*L$ Id not exceed d (unless pu abilization crit ity >1 mS/crr	accumulated in mL, where is 500 mL/min. rge water rem eria and appe	at the well bo r (r=D/2) and nains visually ear to be n.	Dittom. L are in cm. turbid	

Project Data:	Project Name: 	GiziGRA	LEVERACEC.	TRUS		Date: _ Personnel:	3/05/	žo			
Monitoring We Va Mea Constructed W Measured W Depth of	II Data: Well No.: pour PID (ppm): surement Point: /ell Depth (m/ft): /ell Depth (m/ft): Sediment (m/ft):	TOC .	mP-iR	S	aturated Screen L Depth to Pump In Well Diamete Well Screen Volu Initial Depth to	ength (m/ft): take (m/ft) <sup>[1]</sup> : er, D (cm/in): ime, V <sub>s</sub> (L) <sup>(~)</sup> : Water (m/ft):	DU 27 4,2	(			
Time	Pumping Rate (mL/min)	Depth to Water (m/ft) Preci	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft) ision Required <sup>(5)</sup> :	Temperature °C ±3 %	Conductivity (mS/cm) ±0.005 or 0.01 <sup>(6)</sup>	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0825		ST4RT 4/21	Rempros	7,28	2.389	3.54		7,43	-98.1		
0830 0835	120 120 120	4,22 4,23 4,22		7.07	2,324	5,00	erre california co	7,47 7,48 7,48	-96.6 -93.4 -94.6		
0845	120	4.21		6,72	2.240	5.07		7.49	-94.2		
								-			
Sample ID:	610-1114	5847-	e30 <b>5</b> 20 - j	IRC - MP	IR	s	ample Time	085	55	<u> </u>	
Notes: 1 2 4 (1) (2) (3) (4)	The pump intake The well screen For Imperial units The drawdown fr Purging will cont and appears to b	will be place volume will be s, $V_s = \pi^*(r^2)^*L^2$ om the initial inue until state be clearing, or	d at the well screen based on a 1.52 r (2.54) <sup>3</sup> , where r water level should vilization is achieve unless stabilizatio	mid-point or at metres (5-foot) so and L are in inche not exceed 0.1 m d or until 20 well n parameters are	a minimum of 0.6 m creen length (L). Fo es n (0.3 ft). The pum screen volumes ha e varying slightly ou	- or metric units, ping rate shou ave been purge tside of the sta	iny sediment $V_s=n^*(r^2)^*L$ Id not exceed d (unless pu abilization crit	accumulated in mL, where d 500 mL/min irge water ren teria and app	I at the well bo e r (r=D/2) and  nains visually ear to be	ottom. L are in cm. turbid	
(5)	stabilizing), No. ( For conductivity,	of Well Screen the average	n Volumes Purged value of three read	= Vp/Vs. ings <1 mS/cm <del>1</del>	:0,005 mS/cm or wl	here conductiv	ity >1 mS/cn	n ±0.01 mS/c	m.		

Monitoring Well Record for Low-

(Form SP-09)

Project Data:	Project Name: _ 	111458 Gerya	47 V cocretion			Date: Personnel:	3/5/	20		<u>MW-</u>	<u>5D</u>
Monitoring Wel Va Mea Constructed W Measured W Depth of 3	I Data: Well No.: pour PID (ppm): surement Point: fell Depth (m/ft): fell Depth (m/ft): Sediment (m/ft):	Mw- !	50	S	aturated Screen L Depth to Pump Int Well Diamete Well Screen Volu Initial Depth to V	ength (m/ft): ake (m/ft) <sup>[1]</sup> r, D (cm/in): me, V <sub>s</sub> (L) <sup>(4)</sup> : Water (m/ft):	D-TN 2" 30, 9"	1			
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pН	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
	· · · · · · · · · · · · · · · · · · ·	Preci	sion Required <sup>(5)</sup> :	±3 %	±0.005 or 0.01 <sup>(6)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		
0830 0900 0905 0910 0915	Start pun 150 Sampled	AP 3018 3018	0:24 024 0.24	11.6	0:460 0:458 0:458	17.0 16.2 15:7	0.19 0.20 0.23	7.82	-44.1 -41.9 -39.9		
Sample ID:	611145	R47 - 02	521) · 01·	MW 5D			ample Time:	(7.9)	15		
(1) (2) (3) (4) (5)	The pump intake The well screen For Imperial unit The drawdown fi Purging will cont and appears to b stabilizing), No. For conductivity,	will be placed volume will be s, $V_s=\pi^*(r^2)^*L^2$ rom the initial inue until state be clearing, or of Well Screen the average v	d at the well screen based on a 1.52 r r (2.54) <sup>3</sup> , where r a water level should ilization is achieve unless stabilization volumes Purged value of three read	n mid-point or at netres (5-foot) so and L are in inche not exceed 0.1 r d or until 20 well n parameters are = Vp/Vs. ings <1 mS/cm ±	a minimum of 0,6 m creen length (L). Fo es n (0.3 ft). The pum, screen volumes ha e varying slightly ou £0.005 mS/cm or wl	n (2 ft) above a or metric units ping rate shou ve been purga tside of the sta nere conductiv	any sediment , $V_s = n^*(r^2)^*L$ uld not exceed ed (unless pu abilization crit vity >1 mS/cm	accumulated in mL, where d 500 mL/min rge water ren eria and appe a ±0.01 mS/cr	I at the well b r (r=D/2) and nains visually ear to be m.	ottom. I L are in cm. turbid	

GHD Form SP-09 - Revision 02 - August 8, 2017

Monitoring Well Record for Low-

(b orm	SP-09)
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Project Data:	Project Name: Ref. No.:	111958 Hugo	17 correction	<u></u>		Date: Personnel:	3/5	120		M	<u>  - ]</u>
Monitoring We Va Mea Constructed W Measured W Depth of	II Data: Well No.: pour PID (ppm): surement Point: Vell Depth (m/ft): Vell Depth (m/ft): Sediment (m/ft):	M	w-7	s	aturated Screen L Depth to Pump In Well Diamete Well Screen Volu Initial Depth to	ength (m/ft): take (m/ft) <sup>(1)</sup> : er, D (cm/in): ime, V <sub>5</sub> (L) <sup>v/2</sup> : Water (m/ft):	316	54			· · · · · · · · · · · · · · · · · · ·
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1115 1145 1150 1155 1200	Shart pu 150 J Sampled	32.75 32.75	1.26 1.21 1.21	11.24	5.67 5.60 5.58	<u>Z6.8</u> 18.1 21.3	0.30	7.04 7.04 7.03	-17,1 -16.6 -16.3		
Sample ID: Notes: (1) (2) (3) (4) (5)	Control Contro	e will be placed volume will be s, $V_s = n^*(r^2)^*L^*$ rom the initial v inue until stab be clearing, or of Well Screer the average v	305 20 < 0 d at the well screen based on a 1.52 of (2.54) <sup>3</sup> , where r a water level should ilization is achieve unless stabilization to Volumes Purged value of three read	n mid-point or at metres (5-foot) so and L are in inche not exceed 0.1 r ed or until 20 well n parameters are = Vp/Vs. lings <1 mS/cm ±	a minimum of 0.6 n creen length (L). Fo es n (0.3 ft). The pum screen volumes ha e varying slightly ou c0.005 mS/cm or wi	7 s n (2 ft) above a or metric units ping rate shou ave been purge tside of the sta here conductiv	iample Time: any sediment , V <sub>s</sub> =π*(r <sup>2</sup> )*L uld not exceed ed (unless pu abilization crit vity >1 mS/cm	accumulated in mL, where 1 500 mL/min rge water ren eria and appo to ±0.01 mS/cr	I at the well bo r (r=D/2) and nains visually ear to be m.	ottom. L are in cm. turbid	

## Monitoring Well Record for Low- Irging

Project Data: Monitoring Wel	Project Name: Ref. No.:	illy genge	5847 Correcti	کری		Date: Personnel:	3/9 D:T~	)/20 12es		Mu	-12
Va Meas Constructed W Measured W Depth of s	Well No.: pour PID (ppm): surement Point: 'ell Depth (m/ft): 'ell Depth (m/ft): Sediment (m/ft):	/// u	J-1)-	s	aturated Screen L Depth to Pump In Well Diamete Well Screen Volu Initial Depth to	ength (m/ft): take (m/ft) <sup>(1)</sup> : er, D (cm/in): ime, V <sub>s</sub> (L) <sup>(<math>\sim</math>)</sup> : Water (m/ft):	31/1	0			
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0940 1010 1015 1030	Start pu 150 Sampre	Preci mp 31.27 31.27 31.25 d	O.LY O.LY O.LY O.LS	12.3 12.3 12.4	±0.005 or 0.01 0.73 0.73 0.73	<u></u>	<u></u>	1.39 7.38 7.38 7.39	-55.4 -57.3 -58.0		
Sample ID: Notes: (1) (2) (3) (4) (5)	The pump intake The well screen For Imperial unit The drawdown fr Purging will cont and appears to b stabilizing), No. For conductivity,	will be placed volume will be s, $V_s = \pi^*(r^2)^*L^*$ from the initial inue until stab be clearing, or of Well Screen the average v	d at the well screen based on a 1.52 r (2.54) <sup>3</sup> , where r water level should ilization is achieve unless stabilization Volumes Purged value of three read	n mid-point or at metres (5-foot) so and L are in inche not exceed 0.1 n od or until 20 well n parameters are = Vp/Vs. ings <1 mS/cm ±	a minimum of 0.6 m creen length (L). Fo es n (0.3 ft). The pum screen volumes ha e varying slightly ou c0.005 mS/cm or wi	n (2 ft) above a or metric units ping rate shou we been purg tside of the st here conductiv	sample Time: any sediment $\nabla_s = \pi^* (r^2)^* L$ uld not exceed ed (unless pu abilization crit vity >1 mS/cm	accumulated in mL, where d 500 mL/min rge water ren eria and appen t ±0.01 mS/co	at the well be r (r=D/2) and nains visually ear to be m.	ottom. I L are in cm. turbid	

## **Field Data Record Form** Meter, ORP/Temp./Turb./Cond./pH, **YSI ProDSS Water Quality Meter** (QSF-551D)

Т

Page 1 of 1

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Control number: Date (mm/dd/yyyy): User (print name):	08832- 3/5/20 D: Tridua	Project number: Project name: Location:	Genger convections 11145847 Arunon, SPOKANC
Calibration solution(s): Lot #(s): Supplier(s): Expiration date(s):	ph 7,7,10 fei		8
Additional information:			
Field procedure before u	se:		

	Check when completed
pH, ORP, Conductivity, and Turbidity Calibration	
<ol> <li>Ensure the equipment used for calibration is clean and rinsed. <i>Note</i>: The sensor guard and calibration cup are required for turbidity. Other containers (e.g. beaker) can be used for pH, ORP, ISE, and conductivity calibrations as long as care is used to protect the sensors from damage.</li> </ol>	
2. Fill the calibration container with enough fresh standard to cover the temperature sensor and the sensing end of the sensor to be calibrated. Completely submerge the top vent hole when calibrating the conductivity sensor. If using the calibration cup, fill to the first line for pH, ORP, and turbidity calibration. Fill to the second (i.e. top) line for conductivity. <i>Note</i> : First calibration point for turbidity must be 0 NTU. Deionized or distilled water can be used.	
3. Press the Cal key.	ø
4. Highlight the parameter you wish to calibrate and press the Enter key. For Conductivity, a second menu will offer the option of calibrating Specific Conductance, Conductivity, or Salinity. Calibrating one automatically calibrates the other two. Specific conductance is recommended.	Ø
<ol> <li>Allow at least one minute for the temperature to stabilize. Calibration solution values for pH and ORP standards are temperature dependent (e.g. pH 7 buffer calibration solution value is 7.02 at 20 °C and 7.00 at 25 °C).</li> </ol>	,ø
6. Enter the calibration solution value by highlighting Calibration Value, pressing the Enter key, and then using the alpha/numeric keypad to enter the known value for the standard. Once you have entered the value of the calibration standard, highlight ENTER and press the Enter key.	Ø
7. Allow the readings to stabilize by observing the white line on the graph located at the bottom of the calibration screen. Once stable, highlight Accept Calibration and press the Enter key to calibrate.	Ø
<ol> <li>For pH, ISEs, and turbidity, continue with the next point by placing the sensor in a second standard solution and following the procedure previously described. To complete the calibration, highlight Finish Calibration and press the Enter key. Up to 3 calibration points can be completed for these sensors.</li> </ol>	ø
Filing: Field file Signature:	

Environmental Ar	nalysis	Re	que	est	t/Cha	air	1 C	of (	Cus	toa	ly						
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(Rush TAT is subject to laboratory approval and sur	charge.)		Reinquisite	euby	U				Date	Time	Rec	elved by				Date	Time
Date results are needed:		-	Relinquishe	ed by	-				Date	Time	Rec	eived by				Date	Time
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8 Data Package Options (circle if require	d)					_	- 20						_	_			-
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Type III (Reduced non-CLP) TX T	RRP-13		If ves, format;					UPS FedEx Other									
			Site-Specific QC (MS/MSD/Dup)? Yes No														
NYSDEC Category A or B MAI	CP	(If yes, indicate QC sample and submit triplicate sample volume.)						pon receipt _									

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

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## DAILY FIELD REPORT

Project Num	ber: 1210714 Date: 6/3/20 Site Address:
Project Nam	e: (reiger Corrections Field Technician: E: Maise, GHD PM:
Weather:	lear 75° HSE Meeting Conducted: IV res INO,
Equipment I	D (GHD or rented): Calibrated Completed:     Ves □ No D NA
057.	Documented below or "D" form attached: es
	Calibration certificate for rental attached: D Yes D No A
Time	Activity/Comments
0720	GHID ON-site. HET'S meetings and meet with prison
	aperations for COVID-19 Screening.
0800	Begin ground water sympling event
0900	Sample GW-1121074-060320-EM-MPIR collected
1010	Sample GW-1121074-060320-EM-MWZ collected. 4 1.1/-10)
	is dry no sample collected.
1120	Sample bw-1121074-060320-EM-MWIL collected, Well draw
11	down was approaching dry 50 sample collected
1330	Sample GW-1121074-060320-EM-MW5D collected.
1500	Sample 12W-1121074-060320-EM-MW12 collected
1640	Sample (2W-1121074-060320-EM-MW7 collected
1645	Sample 1-W-1121074-060320-EM-DUP Collected at MW-7
1700	Finish gauging remaining wells
1730	6HD off-site
	FDIM
	)
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JOC 509-688-3913

Well Gauging Details Phillips 66 RM Site No. 6880 **Geiger Corrections Center** Spokane, Washington

Well ID	Date Installed	Well Diameter (inches)	Well Depth (ft BTOC)	Screen Length (ft)	Screened Interval (ft BTOC)	Screen Slot Size	Sump Length (ft)	Date	OTW (fr BTOC)	DTP (ft BTOC)	DTB (ft BTOC)	Sample ID	Notes
MP-1	2001	2	8.5	5	3.5-8.5	0.02	0.5						Decommissioned
MP-1R	2013	2	13.5	10	3.5-13.5	0.02	0.5	6/3/20	4.12				
MW-1	2002	2	50.15	25	24.7-49.7	0.02	0.5		31.99				
MW-2	2002	2	14	10	3.5-13.5	0.02	0.5		4.33				
MW-3	2002	2	14	10	3.5-13.5	0.02	0.5						
MW-4	2002	2	13.51	10	3.0-13.0	0.02	0.5		5.44				
MW-5	2002	2	13.34	10	2.8-12.8	0.02	0.5		4.44				
MW-5D	2013	2	45	20	25.0-45.0	0.02	0.5		31.20				
MW-6	2002	2	41.52	20	21.0-41.0	0.02	0,5		32.64				
MW-7	2002	2	44.74	20	24.2-44.2	0.02	0.5		32.67				
MW-8	2002	2	47.12	20	26.6-46.6	0.02	0.5		33.1P				
MW-10	2019	2	15	12	3.0-15.0	0.01	0,5		Dry		1.1		
MW-11	2019	2	15	12	3.0-15.0	0.01	0.5		12.0				
MW-12	2019	2	49	25	24.0-49.0	0.01	0.5		31.94	-			
95-MW-11A	1990	2	99.5	10	84.95-94.5	0.01	5						
95-MW-118	1990	2	49.05	20	24.7-44.7	0.01	5.25						
95-MW-12A	1990	2	81	10	68.1-78.1	0.01	2.25						
95-MW-12B	1990	2	49.72	20	25.0-45.0	0.01	5.25						

Gauge all wells on-Site Sample 2020

Project Data:	Project Name:	beigi	er Corre	otions	ð	Date:	6/3/	20			
	Ref. No.:	/	121074			Personnel:	Ē	Ma;s	ë	-	
Monitoring W Ma Constructed Measured	Vell Data: Well No.: Vapour PID (ppm): easurement Point: Well Depth (m/ft): Well Depth (m/ft):	MP-	IR	5	Saturated Screen I Depth to Pump Ir Well Diamet Well Screen Volu	Length (m/ft): htake (m/ft) <sup>(1)</sup> : er, D (cm/in): ume, V <sub>s</sub> (L) <sup>(2)</sup> : Water ( <sup>(f)</sup> ):		1 15			
Depuild	or Sediment (m/rt):				initial Depth to	water (m/it):		7.12		- -	
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	рН	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
	1	Prec	ision Required <sup>(5)</sup> :	±3 %	±0.005 or 0.01 <sup>(6)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		
8:08		4.12	purg no	5	1.5.225	11.1					
8:40	150	4.13	0.01	13.1	2.73	15.5	1.02	6.17	-115.3		
8:45	150	4.13	0	13.0	2,75	7.8	0.36	6.12	-114.5	đ	1
8:50	150	4.13	0	13.3	2.73	311	0.33	6.12	-117.1		
8:55	150	4.13	0	13.6	2.74	3.3	0.30	6.12	-116.9	1.	
9:00	Sample										
Sample ID:	GW-1121	074-00	60320 -Er	1- MPIR	5.	S	ample Time:	09	00		
Notes:											
(1)	The pump intake	will be placed	at the well screen	mid-point or at a	minimum of 0.6 m	(2 ft) above a	ny sediment	accumulated	at the well bo	ttom.	
(2)	The well screen v For Imperial units	volume will be s, V <sub>s</sub> =л*(r <sup>2</sup> )*L*	based on a $1.52 \text{ m}$ $(2.54)^3$ , where r a	netres (5-foot) sc nd L are in inche	reen length (L). Fo s	r metric units,	V <sub>s</sub> =л*(r <sup>2</sup> )*L	in mL, where	r (r=D/2) and	L are in cm.	
(3) (4)	The drawdown fro Purging will conti and appears to b	om the initial v nue until stabi e clearing, or i	vater level should r lization is achieved unless stabilization	tot exceed 0.1 m or until 20 wells parameters are	(0.3 ft). The pump screen volumes hav varying slightly outs	ing rate shoul ve been purge side of the sta	d not exceed d (unless pur bilization crite	500 mL/min. ge water rem eria and appe	ains visually t ar to be	urbid	
(5)	For conductivity,	the average v	alue of three readir	ngs <1 mS/cm ±0	0.005 mS/cm or whe	ere conductivi	ty >1 mS/cm	±0.01 mS/cm	n.		

Monitoring Well Record for Low-Flow Purging (Form SP-09)

Monitoring V M Constructed	Vell Data: Well No. Vapour PID (ppm) easurement Point Well Depth (m/ft)	MW	-2	S	Baturated Screen L Depth to Pump In Well Diamet	.ength (m/ft): itake (m/ft) <sup>(1)</sup> : er. D (cm/in):					
Measured Well Depth (m/ft): Depth of Sediment (m/ft):				Well Screen Volu	ime, V <sub>s</sub> (L) <sup>(2)</sup> : Water (m/ft):		11.27			=	
4.4.00						water (m/it).		7.33		-	
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pН	ORP (mV)	Volume Purged, Vp (L)	No. of We Screen Volur Purged <sup>(4)</sup>
0930	150	Preci	sion Required	±3 %	±0.005 or 0.01 <sup>(6)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		
0955	150	11 23	PUSING	136	144	21	1 -7	170	1	1	
1000	150	4.34	6.01	126	1.47	21	0.91	6.28	-107.7		-
10.05	150	425	A.07	126	151	15	0.51	0:25	-(11.4		
1010	Samol	0	0.02	12:0	[:9]	117	0.45	6.59	-116.6		and the second
										1	
Sample ID:	GW-112	1074-1	060320-1	EM-M	WZ	Sa	mple Time:	10	10		
Votes: 1) 2)	Sas The pump intake The well screen v For Imperial units	Odor will be placed a volume will be b $v_s, V_s = n^*(r^2)^*L^*$ (	at the well screen r based on a 1.52 me 2.54) <sup>3</sup> , where r and	nid-point or at a l etres (5-foot) scre d L are in inches	minimum of 0.6 m ( een length (L). For	2 ft) above an metric units, '	iy sediment a V <sub>s</sub> =л*(r <sup>2</sup> )*L ir	ccumulated a n mL, where r	at the well bott (r=D/2) and L	om. are in cm.	10
3) 4)	The drawdown fro Purging will conti and appears to be stabilizing), No. o	om the initial wanue until stabili; e clearing, or un f Well Screen V	ater level should no zation is achieved on hless stabilization p /olumes Purged= \	t exceed 0.1 m ( or until 20 well so parameters are v /p/Vs.	0.3 ft). The pumpir creen volumes have arying slightly outsi	ng rate should been purged de of the stab	not exceed s (unless purg ilization criter	500 mL/min. le water rema ria and appea	ins visually tu r to be	rbid	Same and the

Monitoring Well Record for Low-Flow Purging (Form SP-09)

	Project Name: Ref. No.:	beiger	Corre	octions		Date: Personnel:	6/3	120 Mai 90	2		
Monitoring V	Vell Data: Well No.: Vapour PID (ppm):	MW	-11	-	Saturated Screen I	_enath (m/ft):					
M Constructed Measured	Measurement Point: Constructed Well Depth (m/ft): Measured Well Depth (m/ft):				Depth to Pump In Well Diamet Well Screen Volu	ntake (m/ft) <sup>(1)</sup> : er, D (cm/in): ume, V <sub>s</sub> (L) <sup>(2)</sup> :					
Depth o	of Sediment (m/ft):				Initial Depth to	Water (m/ft):		12.0	_		
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (ma/L)	рН	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
		Preci	sion Required <sup>(5)</sup> :	±3 %	±0.005 or 0.01 <sup>(6)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		
1037	150	12.74	0.74	12 14.9	6.63	1.7	6.13	6.49	2.9		
1110	130	12.99	0.99	16.1	7.13	1.6	5.39	6.41	27		
1120	Sample					_[*_[	3/11	0.11			
et.											
Sample ID:	GW-11210	74-060	1320-EM	- MWII		S	ample Time:	ť	120		
Notes:											
(1) (2)	The pump intake The well screen v	will be placed olume will be l $V = n^*(r^2)^* l^* l^*$	at the well screen based on a $1.52 \text{ m}$ $(2.54)^3$ where r a	mid-point or at a netres (5-foot) sci	minimum of 0.6 m reen length (L). For	(2 ft) above a r metric units,	ny sediment V <sub>s</sub> =л*(r <sup>2</sup> )*L	accumulated a in mL, where r	at the well bo (r=D/2) and	ttom. L are in cm.	
(3) (4)	The drawdown fro Purging will contin and appears to be stabilizing). No of	om the initial w nue until stabil e clearing, or u	ater level should r ization is achieved inless stabilization	ot exceed 0.1 m or until 20 wells parameters are	(0.3 ft). The pump screen volumes hav varying slightly outs	ing rate shoul the been purge side of the stat	d not exceed d (unless pur bilization crite	500 mL/min. ge water rema eria and appea	ains visually t ar to be	urbid	
(5)	For conductivity, t	he average va	lue of three reading	ngs <1 mS/cm ±0	0.005 mS/cm or whe	ere conductivi	ty >1 mS/cm	±0.01 mS/cm	2		

August 2017

Monitoring Well Record for Low-Flow Purging

(Form SP-09)

	Ref. No.:	1	20714			Personnel:					
Monitoring W	/ell Data: Well No.:	MW-	-50								
Ma	/apour PID (ppm):			5	:			- 2	_		
Constructed	Well Depth (m/ft):			-	Well Diamet	er. D (cm/in):					=
Measured	Measured Well Depth (m/ft):				Well Screen Vol	ume, V <sub>s</sub> (L) <sup>(2)</sup> :	-	the second second second			Ξ
Depth o	of Sediment (m/ft):				Initial Depth to	Water (m/ft):		31.80			
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity	Turbidity	DO (mg/l.)	рН	ORP (mV)	Volume Purged, Vp	No. of Well Screen Volumes Purged <sup>(4)</sup>
	(112/1117)	Preci	sion Required <sup>(5)</sup> :	±3 %	±0.005 or 0.01 <sup>(6)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		
1246	150	31.8	PUrgi	201						12.5	
1310	150	32.07	0.27	14.1	0.89	35.6	0.97	7.7	25.1		
1315	150	32.07		14.1	0.29	39.8	0.41	6.90	35.1	1.4	
1320	150	32.07	A	14.0	0.28	39.3	0.38	6.79	421	-	
1325	150	32.07		14.0	0.87	36.5	0.39	6.74	46.8		
		1000									
ample ID:	Gw-11z	1074-0	60320-	EM-M	W510	Si	ample Time:	17	330		
lotes:											
1)	The pump intake	will be placed a	at the well screen	mid-point or at a	minimum of 0.6 m	(2 ft) above a	nv sediment a	accumulated a	at the well bo	ttom.	
2)	The well screen v For Imperial units	volume will be b , V <sub>s</sub> =л*(r <sup>2</sup> )*L* (	based on a $1.52 \text{ m}$ $(2.54)^3$ , where r and	netres (5-foot) scr nd L are in inches	een length (L). Fo	metric units,	V <sub>s</sub> =л*(r <sup>2</sup> )*L i	n mL, where r	(r=D/2) and	L are in cm.	
3) 4)	The drawdown fro Purging will contin and appears to be	or Imperial units, V <sub>s</sub> =л"(r^)"L" (2.54)° , where r and L are in inches "he drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min. ?urging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid nd appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be									
	Stabilizing), NO. 0	t vven Screen	volumes Purged=	vp/vs.							

Monitoring Well Data: Well No.: Vapour PID (ppm): Measurement Point: Constructed Well Depth (m/ft): Measured Well Depth (m/ft): Depth of Sediment (m/ft):			Saturated Screen Length (m/ft): Depth to Pump Intake (m/ft) <sup>(1)</sup> : Well Diameter, D (cm/in): Well Screen Volume, V <sub>s</sub> (L) <sup>(2)</sup> : Initial Depth to Water (m/ft):							5	
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	рН	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1417		Precis	sion Required <sup>(5)</sup> :	±3 %	±0.005 or 0.01 <sup>(6)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		
11110	150	31.66	purgi	17/	1.97	200	121	1.75	(DD		
1112	150	32:01	0.45	1.0	1.20	27.7	0.51	6.19	18.5		
1450	190	32.07	0.77	11.0	1.28	56.9	0.25	6.64	15:2		
1170	150	27 07	0.47	120	1.20	64.6	0.30	6.00	17.5	-	
1500	Sample	16.03	0.93	17.9	1.49	26:0	0.30	6.67	16:2		
		· · · · · ·									
ample ID:	GW-11210	74-060	320-EM.	-MW12		Sa	mple Time:	150	00		
lotes: 1) 2)	The pump intake w The well screen vo	will be placed a plume will be b $V_{2}=\pi^{*}(r^{2})^{*}1^{*}1^{*}(r^{2})^{*}1^{*}(r^{2})^{*}1^{*}1^{*}1^{*}1^{*}1^{*}1^{*}1^{*}1$	at the well screen based on a $1.52 \text{ m}$ $2.54)^3$ where r at	mid-point or at a etres (5-foot) scr	minimum of 0.6 m een length (L). Fo	(2 ft) above an r metric units,	ny sediment V <sub>s</sub> =л*(r <sup>2</sup> )*L i	accumulated a in mL, where r	at the well bo (r=D/2) and	ttom. L are in cm.	
3) 4)	The drawdown fro Purging will contin and appears to be stabilizing), No. of	m the initial wa ue until stabili clearing, or u Well Screen V	ater level should n zation is achieved nless stabilization /olumes Purged=	ot exceed 0.1 m or until 20 well s parameters are v Vp/Vs.	(0.3 ft). The pump creen volumes hav varying slightly outs	ing rate should re been purged side of the stab	l not exceed l (unless pur illization crite	500 mL/min. ge water rema eria and appea	ains visually t ar to be	urbid	

August 2017

Monitoring	Well	Record	for	Low-Flow	Purging
				(Form	n SP-09)

Monitoring W	/ell Data:	MI	N-7			reisonnei.					
Me Constructed Measured	Well No.: /// W - / Vapour PID (ppm): Measurement Point: Constructed Well Depth (m/ft): Measured Well Depth (m/ft):		Saturated Screen Length (m/ft): Depth to Pump Intake (m/ft) <sup>(1)</sup> : Well Diameter, D (cm/in): Well Screen Volume, V <sub>s</sub> (L) <sup>(2)</sup> :								
Depth c	of Sediment (m/ft):				Initial Depth to	Water (m/ft):	5	6.59			
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	рН	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
10 10 1		Preci	sion Required <sup>(5)</sup> :	±3 %	±0.005 or 0.01 <sup>(6)</sup>	±10 %	±10 %	±0.1 Units	±10 mV		(a
1550	150	32.55	rurgi	19							
1620	150	34.06	1.1.1.1.1.1.1	17.1	10.56	21.3	0.54	7.03	29.92	9	1
1625				15.2	9.28	16.3	0.59	6.87	37	È	
1630							1.000	1			1
1640	Sample	2								6	
1645	PUP	sample									
					1	7					
1	1					1.00					
				1	1					2	
	1111/121	071 -01	6d2 7 # 15		7			ENICA	6 11	LUN	
Sample ID:	600-11-21	019-00	20320-E	M-MW/		Sa	ample Time:	- 401	1 14	10	
Notes:	Duplicate	e Sam	ple 1D:B	DUPTOW	1121074-060	320-EM-	Sample	e time	: 1640	JEM 16	45
(1)	The pump intake	will be placed	at the well screen	mid-point or at a	minimum of 0.6 m	(2 ft) above an	ny sediment	accumulated	at the well both	om.	
(2)	The well screen v	olume will be h	based on a 1.52 m	etres (5-foot) scr	een length (L). Fo	r metric units,	V <sub>s</sub> =л*(r <sup>2</sup> )*L і	in mL, where i	r (r=D/2) and L	are in cm.	
	For Imperial units	V <sub>s</sub> =л*(r <sup>2</sup> )*L* (	(2.54) <sup>3</sup> , where r and	nd L are in inches	3						
(3) (4)	The drawdown fro	m the initial w	ater level should r	or until 20 wells	(0.3 ft). The pump	ing rate should	d not exceed	500 mL/min.	aine vieuallu tu	rhid	
()	and appears to be	clearing, or u	nless stabilization	parameters are	varying slightly outs	side of the stat	oilization crite	eria and appea	ar to be	TDIQ.	

Field Data Record Form Meter, Water Level (QSF-251D)

Page 1 of 1

Control number: Date (mm/dd/yyyy): User (print name):

20 Maise

Project number: Project name:

11210714 Corrections beiger

Location:

Additional equipment control numbers and descriptions:

Field procedure before use:

	Check when completed
Check for broken or missing parts.	
Check battery	
Check operation of buzzer.	P
<ul> <li>Check operation of signal light.</li> </ul>	
<ul> <li>Test probe in water to ensure unit operates, both visually and audibly.</li> </ul>	
Check cable.	

Filing: Field file

Signature:

ti vi

GHD QSF-251D Rev. 0 - 07/01/2015

This completed form is a quality record

## Field Data Record Form Meter, pH/Cond./Temp. (Portable), Hydac (QSF-291D)

Page 1 of 1

Control number: Date (mm/dd/yyyy): User (print name): OP836/3Eric	120 Maise	Project number: Project name: Location:	HD1074/ Geiger	11210714 Corrections
Calibration solution(s): P Lot #(s): 7 Supplier(s): 7 Expiration date(s): 7	H 4,7,10 812347,790 FEI 11/21,11/8/2	ionductivity 1499, 7901447 20, 2121/21		
Additional information:				

### Field procedure before use:

	Check when completed
Conductivity calibration:	
<ul> <li>Conductance accuracy can be checked using a solution of known conductance in the sample cup. Switch function selector to conductivity, and display should read the same value as conductive solution used. If not, notify Field Equipment manager for repair, and another meter will be selected.</li> </ul>	
pH calibration:	
<ul> <li>Place pH electrode in the pH 7.0 buffer solution bottle and press the read buttor and hold. While pressing read button, Adjust the "ZERO" potentiometer (Screw Adjustment Knob) on the face of the tester so the digital display indicates 7.00. Rinse the pH electrode with DI water.</li> </ul>	
<ul> <li>Place pH electrode in the pH 4.0 buffer solution bottle and press the read buttor and hold. While pressing read button, Adjust the "SLOPE" potentiometer (Screw Adjustment Knob) on the face of the tester so the digital display indicates 4.00. Rinse the pH electrode with DI water.</li> </ul>	
<ul> <li>Repeat steps for pH 7.0 and 4.0 due to interaction between the Zero and Slope potentiometers.</li> </ul>	9
<ul> <li>The unit is now ready for use.</li> </ul>	

Filing: Field file

Signature:

ú tr

Field data:

GHD QSF-291D Rev. 0 - 07/01/2015

## Field Data Record Form Meter, Turbidity (Portable) Hach 2100P and 2100Q (QSF-421D)

Page 1 of 1

Control number: Date (mm/dd/yyyy): User (print name):

2240 Maise

Project number: Project name:

11210714 Beiger Corrections

Location:

Additional equipment control numbers and descriptions:

Field procedure before use:

Do not calibrate in the field.

		Check when completed
neck kit contents;		
Meter		
STABLCAL standards (2100Q)		
Low 0-10, medium 0-100, high standard	ds (2100P)	
Extra AA batteries		I
Sample vials		
est and record standards:		
Gelex (2100P)/STABLCAL (2100Q) Standard	Meter Reading	
10	9.8	
100	99.3	
	10 <del>1</del>	
to. Condensation on outside of com	ula hattilaa affaata watar waaliw	
ote: Condensation on outside of sam	ple bottles affects meter reading	gs.

Filing: Field file

Signature:

to m

GHD QSF-421D Rev. 01 - 09/10/2015



## DAILY FIELD REPORT

Project Number: 11210714 Date: 9/3	3 CC Site Address:
Project Name: Gener conechows Field Techni	cian: DT/EM GHDPM: M.MANSOSI
Weather: 0 HSE Meeting	g Conducted:
Equipment ID (GHD or rented):	Calibrated Completed:
	Documented below or "D" form attached: $\Box$ Yes $\Box$ No $\Box$ NA
	Calibration certificate for rental attached:  Yes  No  NA
Time Activity/Comments	
0100 DASIR - MES	
T Check IN ST PRISON	SIND SIND .
GO PUROJAV PRSON CO	
- Shin Alles To sly.	SER DUCKS FORMS .
1715 + concide the sampling	ore po geroine
1245 - drum work Cheely Out	of Prison
1400 - ICE IPACKAGE SANDLES	SHID & AIRPORT FURX
- MOB LOCUE to gut	the weistchee

## Well Gauging Details Phillips 66 RM Site No. 6880 Geiger Corrections Center Spokane, Washington

	Date	Well	Well Denth	Screen	Screened	Screen	Sump Length		DTW	DTP	DTB	
Well ID	Installed	(inches)	(ft BTOC)	(ft)	(ft BTOC)	Slot Size	(ft)	Date	(ft BTOC)	(ft BTOC)	(ft BTOC)	Sample ID
MP-1	2001	2	8.5	5	3.5-8.5	0.02	0.5					
								0/2/20	1170			
MP-1R	2013	2	13.5	10	3.5-13.5	0.02	0.5	9/3/20	4.76			
MW-1	2002	2	50.15	25	24.7-49.7	0.02	0.5		33.8			
MW-2	2002	2	14	10	3.5-13.5	0.02	0.5		4.70			
MW-3	2002	2	14	10	3.5-13.5	0.02	0.5					
MW-4	2002	2	13.51	10	3.0-13.0	0.02	0.5		5.75	-		
MW-5	2002	2	13.34	10	2.8-12.8	0.02	0.5		4.72			
MW-5D	2013	2	45	20	25.0-45.0	0.02	0.5		33.52			
MW-6	2002	2	41.52	20	21.0-41.0	0.02	0.5		34.43			
MW-7	2002	2	44.74	20	24.2-44.2	0.02	0.5		34.33		ţ	
MW-8	2002	2	47.12	20	26.6-46.6	0.02	0.5		35.23	H-2	1	
MW-10	2019	2	15	12	3.0-15.0	0.01	0.5		Dry			
MW-11	2019	2	15	12	3.0-15.0	0.01	0.5		Dry			
MW-12	2019	2	49	25	24.0-49.0	0.01	0.5		33.57			
95-MW-11A	1990	2	99.5	10	84.95-94.5	0.01	5				1	
95-MW-11B	1990	2	49.05	20	24.7-44.7	0.01	5.25				1	
95-MW-12A	1990	2	81	10	68.1-78.1	0.01	2.25				1	
95-MW-12B	1990	2	49.72	20	25.0-45.0	0.01	5.25					
	Gauge all v	wells on-Sit	е									
	Sample 20	20									1	

Notes		
Decommissioned Fouts/biograwth in Well storti	ng at top	>

Project Data:	Project Name: _	11210	714	A weak		Date:	9/3	120			
Monitoring Wel	Ref. No.: _	<u>Deiger</u>	P	<u> 042</u>							
Vaj Meas	 	1-11-1		S	aturated Screen L Depth to Pump Int	ength (m/ft): take (m/ft) <sup>(1)</sup> :					
Constructed W Measured W	fell Depth (m/ft): fell Depth (m/ft):				Well Diamete Well Screen Volu	er, D (cm/in): me, V <sub>s</sub> (L) <sup>147</sup> :	<u></u> Ц -	76.			
Depth of S	Sediment (m/ft): _	, <u>,</u> ,,			miliai Deptii to	viater (mint).	,	/ <u>yc</u>		•	
	Pumping Rate	Depth to Water	Drawdown from Initial Water Level <sup>(3)</sup>	Temperature	Conductivity	Turbidity	DO (mg/l.)	рН	ORP (m)()	Volume Purged, Vp	No. of Well Screen Volumes Purged <sup>(4)</sup>
Time	(mL/min)	(m/ft) Broci	(m/ft)	±3 %	$+0.005 \text{ or } 0.01^{(6)}$	±10 %	±10 %	±0.1 Units	±10 mV	()	
0.800	DUraina	FIECI	Sion Required .								
0825	120	478		14-1-4	[.4]	47.9	0.21	7.16	-164.5		
0830		4.78		14.5	1.41	33.3	0.15	7.1	-171.2		
0835		4.8		14.5	1.41	19.4	0.14	7.03	-174.9		
0840		4.8		14.6	1.41	15	0.14	7.0	-175.6		
0345	Sample	``				<u> </u>					
										-	
								-			
					_						
								_			
Sample iD:	6W-1121	0714-0	090320-D	ST-MPIR	<u> </u>	S	L Sample Time	8	:45		
Notes:		ight	oder								
(1)	The pump intake	will be place	d at the well scree	n mid-point or at	a minimum of 0.6 r	n (2 ft) above	any sedimeni	accumulated	i at the well b	ottom.	
(2)	The well screen	volume will be	e based on a 1.52	metres (5-foot) s	creen length (L). F	or metric units	s, V <sub>s</sub> =л*(r <sup>2</sup> )*L	in mL, where	e r (r=D/2) and	Lare in cm.	
( )	For Imperial unit	s, V <sub>s</sub> =л*(r <sup>2</sup> )*L	$*~(2.54)^3$ , where r	and L are in inch	es						
(3) (4)	The drawdown fi Purging will cont and appears to b	rom the initial inue until stat pe clearing, or	water level should bilization is achieve unless stabilizatio	not exceed 0.1 r ed or until 20 well on parameters are	n (0.3 ft). The purn I screen volumes ha e varying slightly ou	nping rate shoi ave been purg utside of the st	uld not excee ed (unless pu abilization cri	d 500 mL/mir urge water rer teria and app	n. mains visually ear to be	turbid	
(5)	stabilizing), No. For conductivity	of Well Scree , the average	n Volumes Purgec value of three reac	i= Vp/Vs. Jings <1 mS/cm :	±0.005 mS/cm or w	here conducti	víty >1 mS/cr	n ±0.01 mS/c	:m.		

Project Data:	Project Name: _	buge	r Correct	trons		Date:	931	20		MW-	7
	Ref. No.: _	0	11210714			Personnei:	DTN	110			
Monitoring We Va Mea Constructed V Measured V	Il Data: Well No.: pour PID (ppm): surement Point: Vell Depth (m/ft): Vell Depth (m/ft): Sedimont (m/ft):	Mw	-7	S	aturated Screen L Depth to Pump In Well Diameto Well Screen Volu Initial Depth to	ength (m/ft): take (m/ft) <sup>(1)</sup> : er, D (cm/in): ime, V <sub>s</sub> (L) <sup>(2)</sup> : Water (m/ft):		33			
Depth of	Sediment (m/n).					( ).		->			
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C +3 %	Conductivity (mS/cm)	Turbidity NTU +10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1120	Shack p	Preci	sion Reguired		10.000 01 0.01						
ilso	ISO	24.39	0.0(	15.0	4.99	6.94	0.41	6.85	-56-3		
1155	Í	39.33		15.0	4.98	6.36	0.39/	6.82	-55.6		
1200	L.L	31.33		14.7	5.00	5.57	0.28	6.83	-59.9		
1210	Sampled										
					-						
Sample ID:	GW· il	210714.	090320	. OT . MW	7		Sample Time	1210	7		
Notes:											
(1) (2)	The pump intake The well screen For Imperial uni	e will be place volume will be ts, V <sub>s</sub> =л*(r <sup>2</sup> )*L	d at the well scree e based on a 1.52 * (2.54) <sup>3</sup> , where r	n mid-point or at metres (5-foot) s and L are in inch	a minimum of 0.6 creen length (L). F es	m (2 ft) above For metric units	any sediment s, V <sub>s</sub> =л*(r <sup>2</sup> )*L	in mL, where	d at the well b e r (r=D/2) and	ottom. d L are in cm.	
(3) (4)	The drawdown t Purging will con and appears to stabilizing), No.	from the initial tinue until stat be clearing, or of Well Scree	water level should pilization is achieve unless stabilization n Volumes Purgeo	l not exceed 0.1 i ed or until 20 wel on parameters ar d= Vp/Vs.	m (0.3 ft). The pun I screen volumes h e varying slightly o	nping rate sho ave been purg utside of the st	uld not exceed and (unless put tabilization cri	d 500 mL/mir Irge water rer teria and app	n. mains visually ear to be 	r turbid	
(5)	For conductivity	r, the average	value of three read	dings <1 mS/cm	±0.005 m <b>S/c</b> m or v	vhere conducti	vity >1 mS/cr	n ±0.01 mS/c	<b>π</b> η,		

Project Data: Monitoring Wel Vag Meas Constructed W Measured W Depth of S	Project Name: Ref. No.: U Data: Well No.: Sour PID (ppm): surement Point: ell Depth (m/ft): ell Depth (m/ft): Sediment (m/ft):	MW	er Comech 11210714 12	<u>دم</u> ری ۶	aturated Screen L Depth to Pump In Well Diamete Well Screen Volu Initial Depth to	Date: _ Personnel: _ ength (m/ft): take $(m/ft)^{(1)}$ : er, D (cm/in): ime, V <sub>s</sub> $(L)^{v_s}$ : Water $(m/ft)$ :	9/3/i D:j~ 33.5	20 1 Jen 1 7		<u></u>	12
Time	Pumping Rate (mL/min)	Depth to Water (m/ft) Preci	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft) sion Reguired <sup>(5)</sup> :	Temperature °C ±3 %	Conductivity (mS/cm) ±0.005 or 0.01 <sup>(6)</sup>	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, Vp (L)	No. of Well Screen Volumes Purgea <sup>(4)</sup>
1010	Star pi	22 ( A)	0.03	141	0.85	72.7	10.20	6.92	-12.9		
1040		3358	0.01	14.3	0.45	21.1	0.20	6.93	-13.1		
1050		33.58	0.01	17.3	0.85	23.2	0.20	6.92	-13.4		
	Sample	d									
Sample ID: Notes: (1) (2)	Cw - II2 The pump intak The well screen For Imperial uni	10714 e will be placed volume will be ts, V <sub>s</sub> =n*(r <sup>2</sup> )*L <sup>2</sup>	() 90320 d at the well scree based on a 1.52 $(2.54)^3$ , where r	n mid-point or at metres (5-foot) s and L are in inch	a minimum of 0.6 m ccreen length (L). F	– S m (2 ft) above for metric units	Sample Time: any sediment s, V <sub>s</sub> =л*(r <sup>2</sup> )*L	accumulated in mL, where	d at the well b e r (r=D/2) an	oottom. d L are in cm.	
(3) (4) (5)	The drawdown Purging will con and appears to stabilizing), No. For conductivity	from the initial tinue until stab be clearing, or of Well Scree v, the average	water level should ilization is achieve unless stabilization n Volumes Purgeo value of three read	l not exceed 0.1 ed or until 20 wel on parameters ar d= Vp/Vs. dings <1 mS/cm	m (0.3 ft). The pun I screen volumes h e varying slightly o ±0.005 mS/cm or v	nping rate sho ave been purg utside of the st where conducti	uld not exceed jed (unless pu tabilization cri vity >1 mS/cn	d 500 mL/mir linge water rer teria and app n ±0.01 mS/c	n. mains visually lear to be .m.	∕ turbid	

Monitoring Well Record for Low-F. urging (Form SP-09)

Project Data: Project Name: OCLARS Conections	Date: 9/3/20 MW.SD				
Ref. No.: 0 11210714	Personnel:				
	Divder				
Monitoring Well Data: Well No $\cdot$ M/W $\cdot$ S D	Υ.				
Vapour PID (ppm): Saturated S	reen Length (m/ft):				
Measurement Point: Depth to P	ump Intake (m/ft) <sup>(1)</sup> :				
Constructed Well Depth (m/ft): Well Scree	Diameter, D (cm/in):				
Depth of Sediment (m/ft):	pth to Water (m/ft): 33.52				
Drawdown Pumping Depth to from Initial	Volume Screen Volumes				
Rate Water Water Level <sup>(3)</sup> Temperature Conduc	tivity Turbidity DO pH ORP Purged, Vp Purged <sup>144</sup>				
Time         (mL/min)         (m/ft)         °C         (mS/c	m) NTU (mg/L) (mV) (L) $(mV)$				
Precision Required <sup>(0)</sup> : ±3 % ±0.005 or					
0400 Start pump	891 018 714 -514				
0450 100 (3.3) $0.05$ (3.6) $0.6$	9 SA B. 15 713 - SA 8				
	7 98 0.15 7.13 -49.7				
0940 15 0° 00 0 15 0° 00 0 15 0° 00 00 00 00 00 00 00 00 00 00 00 00					
OTTS SAMPLE					
0950 100					
Sample ID: (20-11210714 -090320.DT: MW S(	Sample Time: 0925				
<u> </u>	(995) - 000				
Notes:	$\sqrt{100}$ $\sqrt{100}$				
(1) The pump intake will be placed at the well screen mid-point or at a minimum	of 0.6 m (2 m) above any sediment accumulated at the weir bottom. $\chi(1) = For metric units = V = \pi^* (r^2)^* 1$ in m1, where r (r=D/2) and L are in cm.				
(2) The well screen volume will be based on a 1.52 metres (5-1001) screen lengt	$(L)$ , i or mono diffici, $u_{S}$ or $(r, r) = \dots = r$ into $r$ $(r + L)$ and $r = 1$ into $r$				
For imperial units, $V_s = \pi^{-1}(r)^{-1} = (2.34)^{-1}$ , where r and L are infinities	he pumping rate should not exceed 500 mL/min.				
<ul> <li>(4) Purging will continue until stabilization is achieved or until 20 well screen vol</li> </ul>	umes have been purged (unless purge water remains visually turbid				
and appears to be clearing, or unless stabilization parameters are varying sl	ghtly outside of the stabilization criteria and appear to be				
stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.	$\sim$ or where conductivity >1 mS/cm $\pm 0.01$ mS/cm.				
(5) For conductivity, the average value of three readings < 1 more that 20.000 more					
Monitoring	Well	Record	for	Low-F	ourging
------------	------	--------	-----	-------	----------
				(Fo	a SP-09)

Project Data:				_			9/2/	- >		MW	-2
	Project Name: _ 	601gx	5 correcti )714	ons		Date: _ Personnel: _	0.70	20			
Monitoring Wel Vaj Meas Constructed W Measured W	I Data: Well No.: _ pour PID (ppm): _ surement Point: _ 'ell Depth (m/ft): 'ell Depth (m/ft): _	MW TOC	-2	S	aturated Screen L Depth to Pump Int Well Diamete Well Screen Volu	ength (m/ft): take (m/ft) <sup>(1)</sup> : er, D (cm/in): ime, V <sub>s</sub> (L) <sup>(2)</sup> :	2"	7.0			
Depth of a	Sediment (m/ft):				Initial Depth to	water (mm):	Y.	<u> </u>			
Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L) +10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
2.74.6		Preci	sion Required <sup>er</sup> :	±3 %	±0.005 01 0.01						
0745	Start P	4.77	0.07	16.9	0.90	3.50	0.18	7.46	-174.9		
0820		Y.72	0.02	16.5	0.91	3.03	0.15	7.45	-174.3		
0825		4.72	0.02	17.0	0.91	2.57	0.15	7,46	-173.0	-	
0830	Sampled										
	4										
										-	
									_		
Sample ID:	62.112	10714-	090320	DT-M	w-2		Sample Time	:(	1830		
Notes'	-										
(1)	The nump intak	e will be place	d at the well scree	en mid-point or at	a minimum of 0.6	m (2 ft) above	any sedimen	t accumulate	d at the well b	ottom.	
(1)	The well screen	volume will be	e based on a 1.52	metres (5-foot) s	screen length (L). F	For metric unit	s, V <sub>s</sub> =л*(r²)*L	. in mL, wher	e r (r=D/2) and	L are in cm.	
(-)	For Imperial uni	ts, V <sub>s</sub> =л*(r <sup>2</sup> )*L	.* (2.54) <sup>3</sup> , where r	and L are in incl	ies	tu u unte alag	uld not excee	d 500 ml /mi	n		
(3) (4)	The drawdown Purging will cor and appears to	from the initial itinue until stal be clearing, o	water level should bilization is achiev r unless stabilizati	d not exceed 0.1 red or until 20 we on parameters at	m (0.3 ft). The pur Il screen volumes h re varying slightly o	nping rate sho have been purg utside of the s	ged (unless pi tabilization cr	urge water re iteria and app	mains visually bear to be	turbid	
(5)	stabilizing), No. For conductivity	of Well Scree /, the average	value of three rea	dings <1 mS/cm	±0.005 mS/cm or v	where conduct	ivity >1 mS/ci	n ±0.01 mS/e	cm.		

# Appendix B Laboratory Analytical Reports



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#### **ANALYSIS REPORT**

Prepared by:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Prepared for:

GHD - P66 2055 Niagara Falls Blvd Niagara Falls NY 14304

Report Date: March 24, 2020 11:27

#### **Project: Geiger Corrections Center**

Account #: 42241 Group Number: 2091134 PO Number: 34043309 Release Number: 11145847 State of Sample Origin: WA

Electronic Copy To GHD Electronic Copy To GHD Electronic Copy To GHD Electronic Copy To GHD Attn: Jeffrey Cloud Attn: Eric Maise Attn: Moshghan Mansoori Attn: Rosemarie Borths

Respectfully Submitted,

Katherine a. Klinefelter

Katherine A. Klinefelter Principal Specialist

(717) 556-7256

To view our laboratory's current scopes of accreditation please go to <a href="https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/certifications-environmental/certifications-eurofins-lancaster-laboratories-environmental/certifications-environmental/certifications-eurofins-lancaster-laboratories-environmental/certifications-environmen







#### SAMPLE INFORMATION

Client Sample Description	Sample Collection	ELLE#
	Date/Time	
GW-11145847-030520-DT-MW5D Grab Groundwater	03/05/2020 09:15	1274536
GW-11145847-030520-DT-MW12 Grab Groundwater	03/05/2020 10:30	1274537
GW-11145847-030520-DT-MW7 Grab Groundwater	03/05/2020 12:00	1274538
GW-11145847-030520-JRL-MP1R Grab Groundwater	03/05/2020 08:55	1274539
GW-11145847-030520-JRL-MW2 Grab Groundwater	03/05/2020 09:40	1274540
GW-11145847-030520-JRL-MW11 Grab Groundwater	03/05/2020 11:05	1274541
GW-11145847-030520-DUP Grab Groundwater	03/05/2020	1274542
Trip Blanks Water	03/05/2020	1274543

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.



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Sample Description:	GW-11145847-030520-DT-MW5D Grab Groundwater Geiger Corrections Center
Project Name:	Geiger Corrections Center

Submittal Date/Time: 03/ Collection Date/Time: 03/

Geiger Corrections Cer 03/06/2020 09:58 03/05/2020 09:15 GHD - P66 ELLE Sample #: GW 1274536 ELLE Group #: 2091134 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Resu	llt	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	ug/l		ug/l	ug/l	
13130	Benzene		71-43-2	N.D.		0.2	1	1
13130	Ethylbenzene		100-41-4	N.D.		0.4	1	1
13130	Toluene		108-88-3	N.D.		0.2	1	1
13130	Xylene (Total)		1330-20-7	N.D.		1	6	1
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l		ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	N.D.		19	250	1
GC Pet	roleum	ECY 97-602	NWTPH-Dx	ug/l		ug/l	ug/l	
Hydroc	arbons	modified						
12899	DX DRO C12-C24		n.a.	78	J	46	100	1
12899	DX HRO C24-C40		n.a.	N.D.		100	260	1

#### Sample Comments

State of Washington Lab Certification No. C457

			-				
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX	SW-846 8260C	1	D200702AA	03/10/2020 16:12	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200702AA	03/10/2020 16:11	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20070A20A	03/11/2020 00:29	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	20070A20A	03/11/2020 00:28	Jeremy C Giffin	1
12899	DRO/DX Mini-extraction Master	ECY 97-602 NWTPH-Dx modified	1	200720020A	03/14/2020 08:44	Bridget Kovacs	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	200720020A	03/13/2020 08:45	Bojan Milinic	1



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Sample Description:	GW-11145847-030520-DT-MW12 Grab Groundwater Geiger Corrections Center
Project Name:	Geiger Corrections Center

Submittal Date/Time: 03/ Collection Date/Time: 03/

Geiger Corrections Center 03/06/2020 09:58 03/05/2020 10:30 GHD - P66 ELLE Sample #: GW 1274537 ELLE Group #: 2091134 Matrix: Groundwater

CAT No.	Analysis Name	c	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260C	;	ug/l	ug/l	ug/l	
13130	Benzene	7	1-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	1	00-41-4	N.D.	0.4	1	1
13130	Toluene	1	08-88-3	N.D.	0.2	1	1
13130	Xylene (Total)	1	330-20-7	N.D.	1	6	1
GC Vol	atiles	ECY 97-602 N	WTPH-Gx	ug/l	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	n	n.a.	N.D.	19	250	1
GC Pet Hydroc	roleum arbons	ECY 97-602 N modified	WTPH-Dx	ug/l	ug/l	ug/l	
12899	DX DRO C12-C24	n	).a.	N.D.	46	100	1
12899	DX HRO C24-C40	n	n.a.	N.D.	100	260	1

#### Sample Comments

State of Washington Lab Certification No. C457

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor		
13130	BTEX	SW-846 8260C	1	D200702AA	03/10/2020 16:36	Anita M Dale	1		
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200702AA	03/10/2020 16:35	Anita M Dale	1		
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20071A20A	03/11/2020 17:37	Marie D Beamenderfer	1		
01146	GC VOA Water Prep	SW-846 5030C	1	20071A20A	03/11/2020 17:36	Marie D Beamenderfer	1		
12899	DRO/DX Mini-extraction Master	ECY 97-602 NWTPH-Dx modified	1	200720020A	03/14/2020 09:07	Bridget Kovacs	1		
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	200720020A	03/13/2020 08:45	Bojan Milinic	1		



Analysis Report

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Sample Description:	GW-11145847-030520-DT-MW7 Grab Groundwater Geiger Corrections Center
Project Name:	Geiger Corrections Center

Submittal Date/Time: 03 Collection Date/Time: 03

Geiger Corrections Cen 03/06/2020 09:58 03/05/2020 12:00 GHD - P66 ELLE Sample #: GW 1274538 ELLE Group #: 2091134 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260	С	ug/l	ug/l	ug/l	
13130	Benzene		71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene		100-41-4	N.D.	0.4	1	1
13130	Toluene		108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)		1330-20-7	N.D.	1	6	1
GC Vol	atiles	ECY 97-602 N	IWTPH-Gx	ug/l	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	2	n.a.	51 J	19	250	1
GC Pet	roleum	ECY 97-602 N	IWTPH-Dx	ug/l	ug/l	ug/l	
Hydroc	arbons	modified					
12899	DX DRO C12-C24		n.a.	190	49	110	1
12899	DX HRO C24-C40		n.a.	N.D.	110	270	1

#### Sample Comments

State of Washington Lab Certification No. C457

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX	SW-846 8260C	1	D200702AA	03/10/2020 17:00	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200702AA	03/10/2020 16:59	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20070A20A	03/11/2020 00:52	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	20070A20A	03/11/2020 00:51	Jeremy C Giffin	1
12899	DRO/DX Mini-extraction Master	ECY 97-602 NWTPH-Dx modified	1	200720020A	03/14/2020 09:29	Bridget Kovacs	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	200720020A	03/13/2020 08:45	Bojan Milinic	1



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Sample Description:	GW-11145847-030520-JRL-MP1R Grab Groundwater Geiger Corrections Center				
Project Name:	Geiger Corrections Center				

Submittal Date/Time: 03/0 Collection Date/Time: 03/0

Geiger Corrections Center 03/06/2020 09:58 03/05/2020 08:55 GHD - P66 ELLE Sample #: GW 1274539 ELLE Group #: 2091134 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l	ug/l	
13130	Benzene		71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene		100-41-4	N.D.	0.4	1	1
13130	Toluene		108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)		1330-20-7	N.D.	1	6	1
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	550	19	250	1
GC Petroleum		ECY 97-602	NWTPH-Dx	ug/l	ug/l	ug/l	
Hydroc	arbons	modified					
12899	DX DRO C12-C24		n.a.	350	46	100	1
12899	DX HRO C24-C40		n.a.	N.D.	100	250	1

#### Sample Comments

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			-	• •			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
13130	BTEX	SW-846 8260C	1	D200702AA	03/10/2020 17:24	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200702AA	03/10/2020 17:23	Anita M Dale	1
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20070A20A	03/11/2020 01:16	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030C	1	20070A20A	03/11/2020 01:15	Jeremy C Giffin	1
12899	DRO/DX Mini-extraction Master	ECY 97-602 NWTPH-Dx modified	1	200720020A	03/14/2020 09:52	Bridget Kovacs	1
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	200720020A	03/13/2020 08:45	Bojan Milinic	1



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Sample Description:	GW-11145847-030520-JRL-MW2 Grab Groundwater Geiger Corrections Center				
Project Name:	Geiger Corrections Center				

Submittal Date/Time: 03 Collection Date/Time: 03

Geiger Corrections Cer 03/06/2020 09:58 03/05/2020 09:40 GHD - P66 ELLE Sample #: GW 1274540 ELLE Group #: 2091134 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260	С	ug/l	ug/l	ug/l	
13130	Benzene		71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene		100-41-4	N.D.	0.4	1	1
13130	Toluene		108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)		1330-20-7	N.D.	1	6	1
GC Volatiles		ECY 97-602 N	WTPH-Gx	ug/l	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	1,200	19	250	1
GC Petroleum		ECY 97-602 N	WTPH-Dx	ug/l	ug/l	ug/l	
Hydrod	arbons	modified					
12899	DX DRO C12-C24		n.a.	410	47	100	1
12899	DX HRO C24-C40		n.a.	N.D.	100	260	1

#### Sample Comments

State of Washington Lab Certification No. C457

	Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
13130	BTEX	SW-846 8260C	1	D200712AA	03/11/2020 15:05	Anita M Dale	1	
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200712AA	03/11/2020 15:04	Anita M Dale	1	
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20070A20A	03/11/2020 01:40	Jeremy C Giffin	1	
01146	GC VOA Water Prep	SW-846 5030C	1	20070A20A	03/11/2020 01:39	Jeremy C Giffin	1	
12899	DRO/DX Mini-extraction Master	ECY 97-602 NWTPH-Dx modified	1	200720020A	03/14/2020 10:15	Bridget Kovacs	1	
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	200720020A	03/13/2020 08:45	Bojan Milinic	1	



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Sample Description:	GW-11145847-030520-JRL-MW11 Grab Groundwater Geiger Corrections Center
Project Name:	Geiger Corrections Center

Submittal Date/Time: 03 Collection Date/Time: 03

Geiger Corrections Cent 03/06/2020 09:58 03/05/2020 11:05 GHD - P66 ELLE Sample #: GW 1274541 ELLE Group #: 2091134 Matrix: Groundwater

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l	ug/l	
13130	Benzene		71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene		100-41-4	N.D.	0.4	1	1
13130	Toluene		108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)		1330-20-7	N.D.	1	6	1
GC Vol	atiles	ECY 97-602 I	NWTPH-Gx	ug/l	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12		n.a.	N.D.	19	250	1
GC Petroleum		ECY 97-602 I	WTPH-Dx	ug/l	ug/l	ug/l	
Hydroc	arbons	modified					
12899	DX DRO C12-C24		n.a.	N.D.	46	100	1
12899	DX HRO C24-C40		n.a.	N.D.	100	260	1

#### Sample Comments

State of Washington Lab Certification No. C457

	Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
13130	BTEX	SW-846 8260C	1	D200712AA	03/11/2020 15:29	Anita M Dale	1	
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200712AA	03/11/2020 15:28	Anita M Dale	1	
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20070A20A	03/11/2020 02:03	Jeremy C Giffin	1	
01146	GC VOA Water Prep	SW-846 5030C	1	20070A20A	03/11/2020 02:02	Jeremy C Giffin	1	
12899	DRO/DX Mini-extraction Master	ECY 97-602 NWTPH-Dx modified	1	200720020A	03/14/2020 10:37	Bridget Kovacs	1	
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	1	200720020A	03/13/2020 08:45	Bojan Milinic	1	



# Analysis Report

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Sample Description:	GW-11145847-030520-DUP Grab Groundwater Geiger Corrections Center
Project Name:	Geiger Corrections Center
Submittal Date/Time: Collection Date/Time:	03/06/2020 09:58 03/05/2020

GHD - P66				
ELLE Sample #:	GW 1274542			
ELLE Group #:	2091134			
Matrix: Groundwater				

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260	C	ug/l	ug/l	ug/l	
13130	Benzene		71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene		100-41-4	N.D.	0.4	1	1
13130	Toluene		108-88-3	N.D.	0.2	1	1
13130	Xylene (Total)		1330-20-7	N.D.	1	6	1
GC Vol	atiles	ECY 97-602	NWTPH-Gx	ug/l	ug/l	ug/l	
08273	NWTPH-Gx water C7-C12	2	n.a.	1,100	19	250	1
GC Pet Hydrod	roleum arbons	ECY 97-602 modified	NWTPH-Dx	ug/l	ug/l	ug/l	
12899	DX DRO C12-C24		n.a.	460	47	110	1
12899	DX HRO C24-C40		n.a.	N.D.	110	260	1

#### Sample Comments

State of Washington Lab Certification No. C457

#### Campie Cominente

	Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
13130	BTEX	SW-846 8260C	1	D200712AA	03/11/2020 15:53	Anita M Dale	1	
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200712AA	03/11/2020 15:52	Anita M Dale	1	
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20070A20A	03/11/2020 02:26	Jeremy C Giffin	1	
01146	GC VOA Water Prep	SW-846 5030C	1	20070A20A	03/11/2020 02:25	Jeremy C Giffin	1	
12899	DRO/DX Mini-extraction Master	ECY 97-602 NWTPH-Dx modified	1	200780019A	03/24/2020 01:47	Timothy M Emrick	1	
12907	Mini-extraction DRO DX (water)	ECY 97-602 NWTPH-Dx 06/97	2	200780019A	03/18/2020 15:20	Osvaldo R Sanchez	1	



108-88-3

1330-20-7

ECY 97-602 NWTPH-Gx

n.a.

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Sample Description: Project Name:		Trip Blanks Water Geiger Corrections Center	GH EL EL	GHD - P66 ELLE Sample #: GW 1274 ELLE Group #: 2091134 Matrix: Water		
		Geiger Corrections Center	Ма			
Submit Collect	tal Date/Time: ion Date/Time:	03/06/2020 09:58 03/05/2020				
CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	S Volatiles	SW-846 8260C	ug/l	ug/l	ug/l	
13130	Benzene	71-43-2	N.D.	0.2	1	1
13130	Ethylbenzene	100-41-4	N.D.	0.4	1	1

N.D.

N.D.

ug/l

N.D.

Toluene

Xylene (Total)

08273 NWTPH-Gx water C7-C12

13130

13130

GC Volatiles

**Sample Comments** 

0.2

ug/l

19

1

1

6

ug/l

250

State of Washington Lab Certification No. C457

	Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor	
13130	BTEX	SW-846 8260C	1	D200702AA	03/10/2020 11:48	Anita M Dale	1	
01163	GC/MS VOA Water Prep	SW-846 5030C	1	D200702AA	03/10/2020 11:47	Anita M Dale	1	
08273	NWTPH-Gx water C7-C12	ECY 97-602 NWTPH-Gx	1	20071A20A	03/11/2020 12:55	Marie D Beamenderfer	1	
01146	GC VOA Water Prep	SW-846 5030C	1	20071A20A	03/11/2020 12:54	Marie D Beamenderfer	1	



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# **Quality Control Summary**

Client Name: GHD - P66 Reported: 03/24/2020 11:27 Group Number: 2091134

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

#### **Method Blank**

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: D200702AA	Sample number(s	): 1274536-12	274539,1274543
Benzene	N.D.	0.2	1
Ethylbenzene	N.D.	0.4	1
Toluene	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: D200712AA	Sample number(s	): 1274540-12	274542
Benzene	N.D.	0.2	1
Ethylbenzene	N.D.	0.4	1
Toluene	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: 20070A20A	Sample number(s	): 1274536.12	74538-1274542
NWTPH-Gx water C7-C12	N.D.	19	250
Batch number: 20071A20A	Sample number(s	): 1274537,12	74543
NWTPH-Gx water C7-C12	N.D.	19	250
Batch number: 200720020A	Sample number(s	): 1274536-12	274541
DX DRO C12-C24	N.D.	45	100
DX HRO C24-C40	N.D.	100	250
Batch number: 200780019A	Sample number(s	): 1274542	
DX DRO C12-C24	N.D.	45	100
DX HRO C24-C40	N.D.	100	250

#### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D200702AA	Sample number(	s): 1274536-1	274539,1274543						
Benzene	20	22.48			112		80-120		
Ethylbenzene	20	22.23			111		80-120		
Toluene	20	23.17			116		80-120		
Xylene (Total)	60	68.18			114		80-120		
Batch number: D200712AA	Sample number(	s): 1274540-1	274542						
Benzene	20	20.13	20	19.89	101	99	80-120	1	30

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

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## **Quality Control Summary**

Client Name: GHD - P66
Reported: 03/24/2020 11:27

Group Number: 2091134

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/I	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Ethylbenzene	20	19.58	20	19.28	98	96	80-120	2	30
Toluene	20	20.7	20	20.21	104	101	80-120	2	30
Xylene (Total)	60	59.94	60	59.02	100	98	80-120	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 20070A20A	Sample number(	s): 1274536,1	274538-1274542						
NWTPH-Gx water C7-C12	1100	1046.53	1100	1061.52	95	97	64-131	1	30
Batch number: 20071A20A	Sample number(	s): 1274537,1	274543						
NWTPH-Gx water C7-C12	1100	1095.36	1100	1109.12	100	101	64-131	1	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 200720020A	Sample number(s	s): 1274536-1	274541						
DX DRO C12-C24	600.15	387.74	600.15	373.59	65	62	14-115	4	20
Batch number: 200780019A	Sample number(s	s): 1274542							
DX DRO C12-C24	600.15	287.46	600.15	301.22	48	50	14-115	5	20

#### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

#### Analysis Name: BTEX

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1274536	97	96	103	91
1274537	98	96	101	92
1274538	97	93	103	93
1274539	99	95	103	94
1274543	97	95	102	91
Blank	97	94	102	93
LCS	95	93	102	96
Limits:	80-120	80-120	80-120	80-120

#### Analysis Name: BTEX

Batch number: I	D200712AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1274540	98	94	102	94
1274541	97	93	102	94
1274542	99	95	102	94

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



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## **Quality Control Summary**

Client Name: GHD - P66
Reported: 03/24/2020 11:27

Group Number: 2091134

### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX Batch number: D200712AA

Datch Humber: D2007 12AA									
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene					
Blank	97	92	102	91					
LCS	95	96	103	95					
LCSD	95	95	103	95					
Limits:	80-120	80-120	80-120	80-120					

Analysis Name: NWTPH-Gx water C7-C12 Batch number: 20070A20A

	Trifluorotoluene-F
1274536	80
1274538	81
1274539	79
1274540	83
1274541	74
1274542	81
Blank	82
LCS	94
LCSD	91
Limits:	50-150

Analysis Name: NWTPH-Gx water C7-C12 Batch number: 20071A20A Trifluorotoluene-F

Thildolololuene-F
77
80
79
90
90
50-150

Analysis Name: DRO/DX Mini-extraction Master Batch number: 200720020A

	Offitioterpheny	
1274536	85	
1274537	85	
1274538	75	
1274539	85	
1274540	85	
1274541	87	
Blank	93	

\*- Outside of specification

\*\*-This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.



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## **Quality Control Summary**

Client Name: GHD - P66 Reported: 03/24/2020 11:27 Group Number: 2091134

#### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: DRO/DX Mini-extraction Master Batch number: 200720020A

	Orthoterphenyl
LCS	96
LCSD	94
Limits:	50-150

Analysis Name: DRO/DX Mini-extraction Master Batch number: 200780019A

	Orthoterphenyl
1274542	87
Blank	62
LCS	79
LCSD	79
Limits:	50-150

\*- Outside of specification

- \*\*-This limit was used in the evaluation of the final result for the blank
- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

# Environmental Analysis Request/Chain of Custody



eurofins Lancaster Laboratories

Environmental

Acct. # 4224 For Eurofins Lancaster Laboratories Environmental use only Group # 201134 Sample # 10779536-43

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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

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Lancaster Laboratories Environmental

# Sample Administration Receipt Documentation Log

Doc Log ID:

Group Number(s): 2091134

278044

Client: GHD

		-	•		-
Delivery Method:	<u>Fed Ex</u>		Arrival Date:	Arrival Date: <u>03/06/2020</u>	
Number of Packages:	1		Number of Projects:	1	
	Arri	val Con	dition Summary		
Shipping Container Sealed	:	Yes	Sample IDs on CC	C match Containe	rs: Yes
Custody Seal Present:		No	Sample Date/Time	s match COC:	Yes
Samples Chilled:		Yes	Total Trip Blank Qt	y:	4
Paperwork Enclosed:		Yes	Trip Blank Type:		HCI
Samples Intact:		Yes	Air Quality Sample	es Present:	No
Missing Samples:	,	No			
Extra Samples:		No			
Discrepancy in Container G	ty on COC:	No			
Unpacked by Melvin Sanch	ez				
	s	amples	Chilled Details		
Thermometer Types: D	T = Digital (Ten	np. Bottle)	IR = Infrared (Surfa	ace Temp) All	Temperatures in °C.
oler # Thermometer ID Corrected	Temp Therm	<u>. Type</u>	Ice Type Ice Present?	Ice Container Ele	vated Temp?
1 DT131 0.8	D	т	Wet Y	Bagged	Ν

# Explanation of Symbols and Abbreviations

of water has a weight

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mL	milliliter(s)
С	degrees Celsius	MPN	Most Probable Number
cfu	colony forming units	N.D.	non-detect
CP Units	cobalt-chloroplatinate units	ng	nanogram(s)
F	degrees Fahrenheit	NTU	nephelometric turbidity units
g	gram(s)	pg/L	picogram/liter
IU	International Units	RL	Reporting Limit
kg	kilogram(s)	TNTC	Too Numerous To Count
L	liter(s)	μg	microgram(s)
lb.	pound(s)	μL	microliter(s)
m3	cubic meter(s)	umhos/cm	micromhos/cm
meq	milliequivalents	MCL	Maximum Contamination Limit
mg	milligram(s)		
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent aqueous liquids, ppm is usually taken to b very close to a kilogram. For gases or va	to one milligram per be equivalent to milli pors, one ppm is eq	kilogram (mg/kg) or one gram per million grams. For grams per liter (mg/l), because one liter of water has a weig uivalent to one microliter per liter of gas.
ppb	parts per billion		
Dry weight basis	Results printed under this heading have be concentration to approximate the value pr	been adjusted for mo resent in a similar sa	pisture content. This increases the analyte weight ample without moisture. All other results are reported on an

#### Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

as-received basis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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# **Data Qualifiers**

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Qualifier	Definition
С	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
Р	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised
	due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.





Environment Testing America

# **ANALYTICAL REPORT**

Eurofins Lancaster Laboratories Env, LLC 2425 New Holland Pike Lancaster, PA 17601 Tel: (717)656-2300

### Laboratory Job ID: 410-3631-1

Client Project/Site: 11210714 Geiger Corrections Center

### For:

GHD Services Inc. 20818 44th Ave W Suite 190 Lynnwood, Washington 98036

Attn: Moshghan Mansoori

Katherine a. Klinefelter=

Authorized for release by: 7/28/2020 9:15:00 AM

Katherine Klinefelter, Principal Project Manager (717)556-7256 katherineklinefelter@eurofinsus.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments. QC data that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Katherine a. Klinefector

Katherine Klinefelter Principal Project Manager 7/28/2020 9:15:00 AM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
QC Sample Results	15
QC Association Summary	18
Lab Chronicle	20
Certification Summary	22
Method Summary	23
Sample Summary	24
Chain of Custody	25
Receipt Checklists	26

# **Definitions/Glossary**

#### Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center

Qualifiers		3
GC/MS VOA Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
GC VOA Qualifier	Qualifier Description	5
B	Compound was found in the blank and sample.	@
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
GC Semi VO	A Qualifier Description	
H	Sample was prepped or analyzed beyond the specified holding time	g
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
		(
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
1C	Result is from the primary column on a dual-column method.	
2C	Result is from the confirmation column on a dual-column method.	
CFL	Contains Free Liquid	
CFU	Colony Forming Unit	
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	

- Toxicity Equivalent Factor (Dioxin) TEF Toxicity Equivalent Quotient (Dioxin) TEQ
- TNTC Too Numerous To Count

### Job ID: 410-3631-1

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

#### Narrative

Job Narrative 410-3631-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 6/6/2020 9:26 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.1° C and 2.1° C.

#### GC/MS VOA

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

#### GC VOA

Method NWTPH-Gx: The method blank for analytical batch 410-12301 contained GRO above the method detection limit (MDL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

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

#### GC Semi VOA

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

#### **Organic Prep**

Method 3510C: The following samples were prepared outside of preparation holding time due to laboratory error: GW-1121074-060320-EM-MP1R (410-3631-1), GW-1121074-060320-EM-MW2 (410-3631-2), GW-1121074-060320-EM-MW11 (410-3631-3), GW-1121074-060320-EM-MW5D (410-3631-4), GW-1121074-060320-EM-MW12 (410-3631-5), GW-1121074-060320-EM-MW7 (410-3631-6) and GW-1121074-060320-EM-DUP (410-3631-7).

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

#### **VOA Prep**

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

# **Detection Summary**

Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center Job ID: 410-3631-1

lient Sample ID: GW-1121074-060320-EM-MP1R							Lab Sample ID: 410-3631-1				
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type		
C7-C12 (1C)	2000	B	1300	95	ug/L	5	_	NWTPH-Gx	Total/NA		
C12-C24	2200	Н	110	49	ug/L	1		NWTPH-Dx	Total/NA		
C24-C40	170	JH	270	110	ug/L	1		NWTPH-Dx	Total/NA		
Client Sample ID: GW-112107	4-0603	320-EM-M\	N2			Lab	Sa	ample ID:	410-3631-2		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type		
C7-C12 (1C)	780	B –	250	19	ug/L	1	_	NWTPH-Gx	Total/NA		
C12-C24	710	Н	100	46	ug/L	1		NWTPH-Dx	Total/NA		
Client Sample ID: GW-112107	4-0603	320-EM-M\	<b>W11</b>			Lab	Sa	ample ID:	410-3631-3		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type		
C7-C12 (1C)	26		250	19	ug/L	1	_	NWTPH-Gx	Total/NA		
C12-C24	71	JH	100	46	ug/L	1		NWTPH-Dx	Total/NA		
Client Sample ID: GW-112107	Lab Sample ID: 410-3631-										
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type		
C12-C24	390	Η –	100	47	ug/L	1	-	NWTPH-Dx	Total/NA		
C24-C40	120	JH	260	100	ug/L	1		NWTPH-Dx	Total/NA		
Client Sample ID: GW-112107	4-0603	320-EM-M\	N12			Lab	Sa	ample ID:	410-3631-5		
No Detections.											
Client Sample ID: GW-112107	4-0603	320-EM-M\	N7			Lab	Sa	ample ID:	410-3631-6		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type		
C7-C12 (1C)	95	J	250	19	ug/L	1	_	NWTPH-Gx	Total/NA		
C12-C24	400	Н	120	55	ug/L	1		NWTPH-Dx	Total/NA		
Client Sample ID: GW-112107	4-0603	320-EM-DL	JP			Lab	Sa	ample ID:	410-3631-7		
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type		
C7-C12 (1C)	60	J	250	19	ug/L	1	_	NWTPH-Gx	Total/NA		
C12-C24	270	Н	100	45	ug/L	1		NWTPH-Dx	Total/NA		
Client Sample ID: Trip Blank						Lab	Sa	ample ID:	410-3631-8		
No Detections.								-			

This Detection Summary does not include radiochemical test results.

Job ID: 410-3631-1

Matrix: Groundwater

5

6

Lab Sample ID: 410-3631-1

#### Client Sample ID: GW-1121074-060320-EM-MP1R Date Collected: 06/03/20 09:00 Date Received: 06/06/20 09:26

	ganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			06/15/20 16:14	1
Ethylbenzene	ND		1.0	0.40	ug/L			06/15/20 16:14	1
Toluene	ND		1.0	0.20	ug/L			06/15/20 16:14	1
Xylenes, Total	ND		6.0	1.4	ug/L			06/15/20 16:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			80 - 120					06/15/20 16:14	1
4-Bromofluorobenzene (Surr)	100		80 - 120					06/15/20 16:14	1
Dibromofluoromethane (Surr)	100		80 - 120					06/15/20 16:14	1
Toluene-d8 (Surr)	96		80 - 120					06/15/20 16:14	1
_ Method: NWTPH-Gx - North	west - Volatile	e Petroleu	m Products (	GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	2000	В	1300	95	ug/L			06/11/20 23:43	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	99							06/11/20 23:43	5
_ Method: NWTPH-Dx - North	west - Semi-V	/olatile Pet	roleum Prod	ucts (G	C)				
Analyte	Result	Qualifier	RL	MDL	Únit	D	Prepared	Analyzed	Dil Fac
C12-C24	2200	Н	110	49	ug/L		06/11/20 18:23	06/13/20 05:42	1
C24-C40	170	JH	270	110	ug/L		06/11/20 18:23	06/13/20 05:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o- terphenyl (Surr)	69		50 - 150				06/11/20 18:23	06/13/20 05:42	1

#### Client Sample ID: GW-1121074-060320-EM-MW2 Date Collected: 06/03/20 10:10 Date Received: 06/06/20 09:26

### Lab Sample ID: 410-3631-2 Matrix: Groundwater

Method: 8260C - Volatile Organic Compounds by GC/MS Result Qualifier Analyte RL MDL Unit D Prepared Dil Fac Analyzed ND Benzene 1.0 0.20 ug/L 06/15/20 16:35 1 Ethylbenzene ND 1.0 06/15/20 16:35 0.40 ug/L 1 ND Toluene 1.0 0.20 ug/L 06/15/20 16:35 1 Xylenes, Total ND 6.0 1.4 ug/L 06/15/20 16:35 1 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 101 80 - 120 06/15/20 16:35 1 4-Bromofluorobenzene (Surr) 98 80 - 120 06/15/20 16:35 1 101 Dibromofluoromethane (Surr) 80 - 120 06/15/20 16:35 1 Toluene-d8 (Surr) 95 80 - 120 06/15/20 16:35 1

#### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL (	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	780	В	250	19 i	ug/L			06/11/20 23:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	98					-		06/11/20 23:17	1

Client Sample ID: GW-11 Date Collected: 06/03/20 10:10 Date Received: 06/06/20 09:26	<b>21074-060</b> 3	320-EM-M	W2				Lab Samp	le ID: 410-3 Aatrix: Groun	631-2 dwatei
Method: NWTPH-Dx - Northy	west - Semi-V	olatile Petr	oleum Prod	ucts (G	<b>C)</b>		Drenered	Analyzad	
		Quaimer				D	Prepared		
C12-C24 C24-C40	V10 ND	H H	260	40 100	ug/L ug/L		06/11/20 18:23	06/13/20 06:05	1
Surrogata	% Booovoru	Qualifiar	Limito		-		Branarad	Applyzod	
o- terphenyl (Surr)		Quaimer	50 - 150				06/11/20 18:23	06/13/20 06:05	
	04074.000								004.0
Client Sample ID: GW-11 Date Collected: 06/03/20 11:20 Date Received: 06/06/20 09:20	21074-0603 D S	320-EIVI-IVI	VV11					IE ID: 410-3 Aatrix: Groun	dwater
Method: 8260C - Volatile Org	ganic Compo	unds by GC	/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			06/15/20 16:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			06/15/20 16:57	1
Toluene	ND		1.0	0.20	ug/L			06/15/20 16:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			06/15/20 16:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120					06/15/20 16:57	1
4-Bromofluorobenzene (Surr)	96		80 - 120					06/15/20 16:57	1
Dibromofluoromethane (Surr)	98		80 - 120					06/15/20 16:57	1
Toluene-d8 (Surr)	97		80 - 120					06/15/20 16:57	1
_ Method: NWTPH-Gx - Northy	west - Volatile	e Petroleum	Products (	GC)					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	26	J	250	19	ug/L			06/15/20 18:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	82		50 - 150					06/15/20 18:38	1
_ Method: NWTPH-Dx - Northy	vest - Semi-V	olatile Petr	oleum Prod	ucts (G	2)				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<u>C12-C24</u>	71	J.H.	100	46	μα/Ι		06/11/20 18:23	06/13/20 06:27	1
C24-C40	ND	Н	260	100	ug/L		06/11/20 18:23	06/13/20 06:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
o- terphenyl (Surr)	- <u></u>		50 - 150				06/11/20 18:23	06/13/20 06:27	1
- Client Sample ID: GW-11 Date Collected: 06/03/20 13:30	<b>21074-060</b>	320-EM-M	W5D				Lab Samp	le ID: 410-3 Matrix: Groun	631-4 dwatei

Client: GHD Services Inc.

#### Method: 8260C - Volatile Organic Compounds by GC/MS Analyte Result Qualifier RL MDL Unit D Analyzed Dil Fac Prepared 0.20 ug/L Benzene 06/15/20 17:19 ND 1.0 1 Ethylbenzene ND 0.40 ug/L 06/15/20 17:19 1.0 1 Toluene ND 1.0 0.20 ug/L 06/15/20 17:19 1 Xylenes, Total ND 6.0 1.4 ug/L 06/15/20 17:19 1 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 102 80 - 120 06/15/20 17:19 1 4-Bromofluorobenzene (Surr) 97 80 - 120 06/15/20 17:19 1

Eurofins Lancaster Laboratories Env, LLC

Job ID: 410-3631-1

5 6

Client: GHD Services Inc.	
Project/Site: 11210714 Geiger Corrections Cente	r

Job ID: 410-3631-1

Date Collected:         Matrix: Groundwate           Date Received:         06/06/20 09:26           Method:         8260C - Volatile         Organic         Computed by GC/MS (Continued)           Surrogate         %Recovery         Qualifier         Linits         Prepared         Analyzed         DIF           Disconditionmethane (Sur)         06         06         120         06/1520         17.19         06/1520         17.19         06/1520         17.19         06/1520         17.19         06/1520         17.19         06/1520         17.19         06/1520         17.19         06/1520         17.19         06/1520         17.19         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         18.00         06/1520         06/1520         06/1520	Client Sample ID: GW-11	121074-0603	320-EM-M	MW5D				Lab Samp	le ID: 410-3	8631-4
Method: 8250C - Volatile Organic Compounds by GC/MS (Continued)           Surrogate         X/Recovery Qualifier         Limits         Prepared         Analyzed         Dir           Diromolucomethane (Sur)         101         80.120         06/15/20 17.19         06/15/20 17.19           Tollene-dd (Sur)         98         80.120         06/15/20 17.19         06/15/20 17.19           Method: NWTPH-GX - Northwest - Volatile Petroleum Products (GC)         Analyzed         DIF         06/15/20 18.01           Analyte         KRecovery Qualifier         Limits         Prepared         Analyzed         DIF           Surrogate         X/Recovery Qualifier         Limits         Prepared         Analyzed         DIF           C24-C40         120         JH         200         100         ugL         06/13/20 06:50         DIF           Surrogate         X/Recovery Qualifier         Limits         Prepared         Analyzed         DIF           C24-C40         120         JH         200         100         ugL         06/11/20 18:23         06/13/20 06:50           Surrogate         X/Recovery Qualifier         Limits         Dif         06/15/20 17:41         Dif           Dite Roclevect: 06/03/20 15:00         Sor.150	Date Collected: 06/03/20 13:3	60 6						Ň	Matrix: Groun	dwater
Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         DIF           Dibromotiloromethane (Surr)         98         80 - 120         06/15/20 17.19         06/15/20 17.19           Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)         Analyzed         DIF         06/15/20 17.19         06/15/20 17.19           Surrogate         %Recovery         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed         DIF           Surrogate         %Recovery         Qualifier         RL         MDL         Unit         D         Prepared         Analyzed         DIF           Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)         Analyzed         DIF         C24-C40         06/15/20 18/20 18/20 08/30         DIF           Surrogate         %Recovery Qualifier         Limits         Orgenered         Analyzed         DIF           Citects         06/03/20 15:00         DIF	Method: 8260C - Volatile Or	o ganic Compo	unds by G	C/MS (Contin	nued)					
DibromofiLoromethane (Surr)         Original         B0. 120         Optimized (Surr)         Optintof (Surr) <thoptimized (surr)<="" th=""></thoptimized>	Surrogate	%Recoverv	Qualifier	l imits				Prenared	Analyzed	Dil Fac
Tolkene-d8 (Sum)         98         80 - 120         06/15/20 17:19           Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) Analyte         Result Qualifier         RL         MDL         Unit         D         Prepared         Analyzed         DII F           Surrogate         %Recovery Qualifier         Limits         Prepared         Analyzed         DII F           Surrogate         %Recovery Qualifier         Limits         Prepared         Analyzed         DII F           Analyte         80         420         100         47         ugit         D         Prepared         Analyzed         DII F           C12-C24         390         H         100         47         ugit         D         Prepared         Analyzed         DII F           c:trabentyl (Sum)         91         50-150         000         ugit         Dif T         Dif	Dibromofluoromethane (Surr)			80-120					06/15/20 17:19	1
Method:         NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) Analyte         ND         MD         MD         Unit         D         Prepared         Analyzed         DII           C7-C12(1C)         ND         ND         250         19         ugl.         D         Prepared         Analyzed         DII         Prepared         Analyzed	Toluene-d8 (Surr)	98		80 - 120					06/15/20 17:19	1
Method:         NVT PF-SX - Northwest - Volatile Petroleum Products (GC)         MDL         Unit         D         Prepared         Analyzed         DIF           C7-C12 (1C)         ND         250         19 ug/L         D         Prepared         Analyzed         DIF           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         DIF           a.a. 7th/burstoluene (fid) (1C)         80         50 · 150         Prepared         Analyzed         DIF           Method:         WWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)         Prepared         Analyzed         DIF           C12-C24         390 H         100         47 ug/L         D 601120 18:23 061320 06:50         DIF           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         DIF           a.terphenyl (Surr)         91         50.150         Derts23 061320 06:50         DIF         Derts23 061320 06:50         DIF           Date Collected: 06(06/20 09:26         Surrogate         %Recovery Qualifier         Limits         Prepared         Analyzed         DIF           Toluene         ND         1.0         0.20 ug/L         061520 17.41         Matrix: Groundwato			Detrolou							
Integrate         No	Method: NWIPH-GX - North	West - Volatile	Ouglifier	m Products (		Unit	п	Propared	Analyzod	Dil Eac
Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dif F           Method:         NWTPH-Dx - Northwest - Semi-Volatile Petroleum         Products (GC)         Analyzed         Dif F         Dif F <td< td=""><td>C7-C12 (1C)</td><td></td><td>Quaimer</td><td>250</td><td>19</td><td>ua/L</td><td></td><td></td><td>06/15/20 19:01</td><td>1</td></td<>	C7-C12 (1C)		Quaimer	250	19	ua/L			06/15/20 19:01	1
Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         DIF           a.g.a-Triffuoratoluene (fid) (1C)         80         60         50 - 150         06/15/20 19.01         06/15/20 19.01           Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)         Analyzed         01/1         0         91         06/13/20 06:50         0         06/13/20 06:50         0           C12-C24         330 H         100         47         ug/L         06/11/20 18:23         06/13/20 06:50         0           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         DIF           o-terphenyl (Surr)         91         50 - 150         06/13/20 06:50         DIF           Date Received: 06/06/20 09:26         Matrix: Groundwate         Lab Sample ID: 410-3631-           Method: S260C - Volatile Organic Compounds by GC/MS         Matrix: Groundwate         06/15/20 17.41         Matrix: Groundwate           Benzene         ND         1.0         0.20         ug/L         06/15/20 17.41         06/15/20 17.41           Toluene         ND         1.0         0.20         ug/L         06/15/20 17.41         06/15/20 17.41         06/15/20 17.41           Toluene-d8 (Su				200		~ <u>9</u> /=			00/10/20 10/01	
a.a. a. Triffuorobluene (fid) (1C)       80       50 - 150       06/15/20 19:01         Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)       Prepared       Analyze       DII F.         Analyte       Result Qualifier       RL       MDL       Unit       D       Prepared       Analyzed       DII F.         C12-C24       390 H       100       47       ugL       06/11/20 18:23       06/13/20 06:50       DII F.         Surrogate       %Recovery       Qualifier       Limits       50.750       06/13/20 06:50       DII F.         Client Sample ID: GW-1121074-060320-EM-MW12       Lab Sample ID: 410-3631       Date Collected: 06/03/20 15:00       Matrix: Groundwath         Date Collected: 06/03/20 15:00       ND       1.0       0.20       ugL       06/15/20 17.41       DII F.         Benzene       ND       1.0       0.40       ugL       06/15/20 17.41       Dii F.       Dii F.       06/15/20 17.41       Dii F.       Dii F.       06/15/20 17.41       Dii F.       Dii F.       06/15/20 17.41       Dii F.       06/15/20 17.41       Dii F.       06/15/20 17.41       Dii F.       Dii F.       06/15/20 17.41       Dii F.       Dii F.       06/15/20 17.41       Dii F.       C.       06/15/20 17.41       Dii F.       Dii F. </td <td>Surrogate</td> <td>%Recovery</td> <td>Qualifier</td> <td>Limits</td> <td></td> <td></td> <td></td> <td>Prepared</td> <td>Analyzed</td> <td>Dil Fac</td>	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) Analyte         Prepared         Analyzed 06/11/20 18/23 06/13/20 06/50         Dil F           C12-C24         390 H         100 47 ug/L         06/11/20 18/23 06/13/20 06/50         Dil F           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           c-terphenyl (Surr)         91         50 - 150         06/13/20 06/3/20 06/50         Dil F           Client Sample ID: GW-1121074-060320-EM-MW12         Lab Sample ID: 410-3631- 06/13/20 07/32         Dil F         Matrix: Groundwate           Date Collected: 06/06/20 09:26         Method: 8260C - Volatile Organic Compounds by GC/MS Analyte         ND         1.0         0.20         ug/L         06/15/20 17.41         06/15/20 17.41           Bercene         ND         1.0         0.40         ug/L         06/15/20 17.41         06/15	a,a,a-Trifluorotoluene (fid) (1C)	80		50 - 150					06/15/20 19:01	1
Mainton         Result Qualifier         RL         MDL         Unit         D         Prepared         Analyzed         Dil F           C12-C24         390 H         100         47         ug/L         D         06/11/20 18:23         06/13/20 06:50         Dil F           C24-C40         120 J H         260         100 ug/L         Dif F         06/11/20 18:23         06/13/20 06:50         Dif F           Surrogate         %Recovery Qualifier         Limits         Prepared         Analyzed         Dif F           C1etent Sample ID: GW-1121074-060320-EM-MW12         Lab Sample ID: 410-3631-         Matrix: Groundwate           Date Collected: 06/06/20 09:26         Method: 8260C - Volatile Organic Compounds by GC/MS         Manalyte         Malyte         Malyte         Analyte         06/15/20 17:41         Matrix: Groundwate           Benzene         ND         1.0         0.20 ug/L         06/15/20 17:41         06/15/20 17:41         Method: 82/60C + Volatile Organic Compounds by GC/MS         Malyte         06/15/20 17:41         06/15/20 17:41         Method: 82/60C + Volatile ND         0.0         0.0 ug/L         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41 <td>- Method: NWTPH-Dy - North</td> <td>west - Somi-V</td> <td>olatilo Pot</td> <td>troloum Prod</td> <td>ucte (G</td> <td>2)</td> <td></td> <td></td> <td></td> <td></td>	- Method: NWTPH-Dy - North	west - Somi-V	olatilo Pot	troloum Prod	ucte (G	2)				
C12-C24         390 H         100         47 ug/L         06/11/20 18:23 06/13/20 06:50           Surrogate         3/80 except Qualifier         Limits         06/11/20 18:23 06/13/20 06:50         DI/F           6-terphenyl (Surr)         91         50.150         06/13/20 18:23 06/13/20 06:50         DI/F           Client Sample ID: GW-1121074-060320-EM-MW12         Lab Sample ID: 410-3631         Matrix: Groundwatu           Date Collected: 06/03/20 15:00         Matrix: Groundwatu         Matrix: Groundwatu           Date Collected: 06/03/20 09:26         ND         1.0         0.20 ug/L         Di/F           Method: 8260C - Volatile Organic Compounds by GC/MS         Matrix: Groundwatu         06/15/20 17:41         Di/F           Benzene         ND         1.0         0.20 ug/L         06/15/20 17:41         06/15/20 17:41           Surrogate         %Recovery Qualifier         Limits         Prepared         Analyzed         Di/F           1.2.Dichloroethane-d4 (Surr)         99         80.120         06/120         06/15/20 17:41         06/15/20 17:41           1.2.Dichloroethane-d3 (Surr)         99         80.120         06/15/20 17:41         06/15/20 17:41           1.2.Dichloroethane-d3 (Surr)         99         80.120         06/15/20 17:41         06/15/20 17:41 <tr< td=""><td>Analyte</td><td>Result</td><td>Qualifier</td><td>RL</td><td>MDL</td><td>Unit</td><td>D</td><td>Prepared</td><td>Analyzed</td><td>Dil Fac</td></tr<>	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C24-C40         120         J.H         260         100         ug/L         06/11/20 18:23         06/13/20 06:50           Surrogate o- terphenyl (Surr)         %Recovery 91         Qualifier 50 - 150         Limits 50 - 150         Prepared 06/11/20 18:23         Analyzed 06/13/20 06:50         Dil F           Client Sample ID: GW-1121074-060320-EM-MW12 Date Received: 06/06/20 09:26         Lab Sample ID: 410-3631- Matrix: Groundwate           Method: 8260C - Volatile Organic Compounds by GC/MS Analyte         Result Qualifier         RL         MDL         Unit         D         Prepared         Analyzed         Dil F           Benzene         ND         1.0         0.20         ug/L         06/15/20 17:41         Dil F           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         06/15/20 17:41           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         06/15/20 17:41           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         06/15/20 17:41           Dibromofluorobenzene (Surr)         99         80 - 120         06/15/20 17:41         06/15/20 17:41           Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)         ND <t< td=""><td>C12-C24</td><td>390</td><td>H</td><td>100</td><td>47</td><td>ug/L</td><td></td><td>06/11/20 18:23</td><td>06/13/20 06:50</td><td>1</td></t<>	C12-C24	390	H	100	47	ug/L		06/11/20 18:23	06/13/20 06:50	1
Surrogate         %Recovery 91         Limits 50.150         Prepared 06/11/2018:23         Analyzed 06/13/2006:50         Dif F           Client Sample ID: GW-1121074-060320-EM-MW12 Date Collected: 06/03/2015:00 Date Received: 06/06/2009:26         Lab Sample ID: 410-3631- Matrix: Groundwate           Method: 8260C - Volatile Organic Compounds by GC/MS Analyte         Result Qualifier         MDL 1.0         Unit         D         Prepared 06/15/2017:41         Dif F           Etrybenzene         ND         1.0         0.40         ug/L         06/15/2017:41         Dif F           Surrogate         ND         1.0         0.40         ug/L         06/15/2017:41         Dif F           Surrogate         ND         1.0         0.20         ug/L         06/15/2017:41         Dif F           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dif F           1/2-Dichloroethane-d4 (Surr)         99         80.120         0.41         ug/L         06/15/2017:41         Dif F           1/2-Dichloroethane-d8 (Surr)         99         80.120         06/15/2017:41         Dif F         06/15/2017:41         Dif F           1/2-Dichloroethane-d8 (Surr)         98         80.120         06/15/2017:41         06/15/2017:41         Dif F <td< td=""><td>C24-C40</td><td>120</td><td>JH</td><td>260</td><td>100</td><td>ug/L</td><td></td><td>06/11/20 18:23</td><td>06/13/20 06:50</td><td>1</td></td<>	C24-C40	120	JH	260	100	ug/L		06/11/20 18:23	06/13/20 06:50	1
Surrogate       %Recovery       Qualifier       Limits       Prepared       Analyzed       Dif         o- terphenyl (Surr)       91       50.750       06/11/20 18:23       06/13/20 06:50       Dif         Client Sample ID: GW-1121074-060320-EM-MW12       Lab Sample ID: 410-3631       Matrix: Groundwate         Date Collected: 06/03/20 15:00       Matrix: Groundwate         Date Collected: 06/06/20 09:26       Matrix: Groundwate         Method: 8260C - Volatile Organic Compounds by GC/MS       Matrix: Groundwate         Analyzed       ND       1.0       0.20       ug/L       06/15/20 17:41         Benzene       ND       1.0       0.20       ug/L       06/15/20 17:41       Dif F         Toluene       ND       1.0       0.20       ug/L       06/15/20 17:41       Dif F/20 17:41         Surrogate       %Recovery       Qualifier       Limits       Prepared       Analyzed       Dif F         1.2-Dichiorobhazene (Surr)       97       80 -120       06/15/20 17:41       Dif F/20 17:41       Dif										
Dr. terpneny (stirr)         St         SU 150         DB/11/20 18:23 06/13/20 06:30           Client Sample ID: GW-1121074-060320-EM-MW12         Lab Sample ID: 410-3631.           Date Collected: 06/03/20 15:00         Matrix: Groundwate           Date Received: 06/06/20 09:26         Result Qualifier         RL         MDL         Unit         D         Prepared         Analyzed         Dil F.           Benzene         ND         1.0         0.20 ug/L         D         Prepared         Analyzed         Dil F.           Benzene         ND         1.0         0.20 ug/L         D         Prepared         Analyzed         Dil F.           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F.           Assonafilouromethane (Surr)         99         80 - 120         Of/120 17:41         Dil F.           Dibromofilouromethane (Surr)         99         80 - 120         Of/15/20 17:41         Dil F.           Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)         Analyzed         Dil F.         Of/15/20 17:41           Method: NWTPH-Gx - Northwest - Semi-Volatile Petroleum Products (GC)         Analyzed         Oil F.         Of/15/20 19:25         Dil F.           Surrogate         %Recovery Qualifier	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Client Sample ID: GW-1121074-060320-EM-MW12         Lab Sample ID: 410-3631- Matrix: Groundwate           Date Collected: 06/03/20 15:00         Matrix: Groundwate           Method: 8260C - Volatile Organic Compounds by GC/MS         MD         Unit         D         Prepared         Analyzed         Dil F.           Benzene         ND         1.0         0.20         ug/L         06/15/20 17:41         06/15/20 17:41           Ethylbenzene         ND         1.0         0.20         ug/L         06/15/20 17:41         06/15/20 17:41           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F.           12-Dichlorebhane-d4 (Surr)         99         80 - 120         06/15/20 17:41         06/15/20 17:41           7oluene-d8 (Surr)         97         80 - 120         06/15/20 17:41         06/15/20 17:41           Toluene-d8 (Surr)         97         80 - 120         06/15/20 17:41         06/15/20 17:41           Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)         Analyzed         06/15/20 17:41         06/15/20 17:41           Surrogate         %Recovery         Qualifier         Limits         06/15/20 17:41         06/15/20 19:25           Surrogate         %Result         Qualifier         Limit	o- terphenyl (Surr)	91		50 - 150				06/11/20 18:23	06/13/20 06:50	1
Benzene         ND         1.0         0.20         ug/L         06/15/20         17/41           Ethylbenzene         ND         1.0         0.40         ug/L         06/15/20         17/41           Toluene         ND         1.0         0.20         ug/L         06/15/20         17/41           Xylenes, Total         ND         6.0         1.4         ug/L         06/15/20         17/41           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           1/2-Dichloroethane-d4 (Surr)         99         80 - 120         06/15/20         06/15/20         17/41           Harromofluorobenzene (Surr)         97         80 - 120         06/15/20         06/15/20         17/41           Toluene-d8 (Surr)         98         80 - 120         06/15/20         06/15/20         17/41           Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)         Analyzed         Dil F         O///>250         19         ug/L         D         Prepared         Analyzed         Dil F           67-C12 (1C)         ND         84         50 - 150         Prepared         Analyzed         06/15/20         19         10         06/15/20         19/25	Analyte	Result	Qualifier		MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyloenzene       ND       1.0       0.40       Ug/L       06/15/20 17:41         Toluene       ND       1.0       0.20       ug/L       06/15/20 17:41         Xylenes, Total       ND       6.0       1.4       ug/L       06/15/20 17:41         Surrogate       %Recovery       Qualifier       Limits       Prepared       Analyzed       Dil F         1.2-Dichloroethane-d4 (Surr)       97       80 - 120       06/15/20 17:41       06/15/20 17:41       06/15/20 17:41         Dibromofluoromethane (Surr)       99       80 - 120       06/15/20 17:41       06/15/20 17:41       06/15/20 17:41         Toluene-d8 (Surr)       98       80 - 120       06/15/20 17:41       06/15/20 17:41       06/15/20 17:41         Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)       Analyte       Result Qualifier       RL       MDL       Unit       D       Prepared       Analyzed       Dil F         G.7-C12 (1C)       ND       250       19       ug/L       D       Prepared       Analyzed       Dil F         a.a,a-Trifluorotoluene (fid) (1C)       84       50 - 150       Prepared       Analyzed       Dil F         Malyte       Result Qualifier       RL       MDL       Unit       D <td>Benzene</td> <td>ND</td> <td></td> <td>1.0</td> <td>0.20</td> <td>ug/L</td> <td></td> <td></td> <td>06/15/20 17:41</td> <td>1</td>	Benzene	ND		1.0	0.20	ug/L			06/15/20 17:41	1
ND       1.0       0.20       ug/L       06/13/20 17.41         Xylenes, Total       ND       6.0       1.4       ug/L       06/15/20 17.41         Surrogate       %Recovery       Qualifier       Limits       Prepared       Analyzed       Dil F         1.2-Dichloroethane-d4 (Surr)       99       80 - 120       06/15/20 17.41       06/15/20 17.41       06/15/20 17.41         Jbromofluorobenzene (Surr)       97       80 - 120       06/15/20 17.41       06/15/20 17.41         Dibromofluoromethane (Surr)       99       80 - 120       06/15/20 17.41       06/15/20 17.41         Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)       06/15/20 17.41       06/15/20 17.41       06/15/20 17.41         Surrogate       %Recovery       Qualifier       RL       MDL       Unit       D       Prepared       Analyzed       Dil F         a,a,a-Trifluorotoluene (fid) (1C)       84       50 - 150       Prepared       Analyzed       Dil F         C12-C24       ND       H       110       49       06/11/20 18:23       06/13/20 07:13       Dil F         C12-C24       ND       H       270       110       ug/L       06/11/20 18:23       06/13/20 07:13       Dil F         C24-C40	Ethylbenzene	ND		1.0	0.40	ug/L			06/15/20 17:41	1
Surrogate%RecoveryQualifierLimitsPreparedAnalyzedDil F1.2-Dichloroethane-d4 (Surr)9980 - 12006/15/20 17:414-Bromofluorobenzene (Surr)9780 - 12006/15/20 17:41Dibromofluoromethane (Surr)9980 - 12006/15/20 17:41Dibromofluoromethane (Surr)9880 - 12006/15/20 17:41Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)06/15/20 17:4106/15/20 19:25AnalyteResultQualifierRLMDLC7-C12 (1C)ND25019ug/L06/15/20 19:25Surrogate%RecoveryQualifierLimitsa,a,a-Trifluorotoluene (fid) (1C)ResultQualifierRLMethod: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)AnalyteResult QualifierRumitsC12-C24ND H110Q2-C24-C40ND H270110ND H270110ug/LO6/11/20 18:2306/13/20 07:13Surrogate%RecoveryQualifierC2-C24ND H270110ND H270110ug/L06/13/20 07:1306/13/20 07:13Surrogate%RecoveryQualifier0-terphenyl (Surr)8950.150	Xvlenes Total			6.0	0.20	ug/L			06/15/20 17:41	1
Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           1,2-Dichloroethane-d4 (Surr)         99         80-120         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41           Jibromofluorobenzene (Surr)         97         80-120         06/15/20 17:41         06/15/20 17:41         06/15/20 17:41           Toluene-d8 (Surr)         98         80-120         06/15/20 17:41         06/15/20 17:41           Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)         ND         250         19         ug/L         D         Prepared         Analyzed         Dil F           G7-C12 (1C)         ND         250         19         ug/L         D         06/15/20 19:25         Dil F           A,a,a-Trifluorotoluene (fid) (1C)         84         Limits         50-150         Prepared         Analyzed         Dil F           Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)         Analyte         Result         Qualifier         Limits         06/11/20 18:23         06/13/20 07:13           C12-C24         ND         H         110         49         ug/L         06/11/20 18:23         06/13/20 07:13         Dil F           C24-C40         ND         H		ND		0.0	1.4	ug/L			00/13/20 17.41	
1,2-Dichloroethane-04 (Surr)       99       80-120       06/13/20 17/41         4-Bromofluorobenzene (Surr)       97       80-120       06/15/20 17:41         Dibromofluoromethane (Surr)       99       80-120       06/15/20 17:41         Dibromofluoromethane (Surr)       99       80-120       06/15/20 17:41         Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)       Analyze       06/15/20 17:41         Analyte       Result       Qualifier       RL       MDL       Unit       D       Prepared       Analyzed       Dil F:         Surrogate       %Recovery       Qualifier       Limits       50-150       Prepared       Analyzed       Dil F:         Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)       Analyzed       Dil F:       06/13/20 07:13       Dil F:         Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)       Analyzed       Dil F:       06/11/20 18:23       06/13/20 07:13         C12-C24       ND       H       110       49       ug/L       06/11/20 18:23       06/13/20 07:13         C24-C40       ND       H       270       110       0g/L       06/11/20 18:23       06/13/20 07:13       Dil F:         Surrogate       %Recovery       Qualifier <t< td=""><td>Surrogate</td><td>%Recovery</td><td>Qualifier</td><td>Limits</td><td></td><td></td><td></td><td>Prepared</td><td>Analyzed</td><td>Dil Fac</td></t<>	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromoluoropenzene (Surr)9780-12000/13/20 17:41Dibromofiuoromethane (Surr)9980-12006/15/20 17:41Toluene-d8 (Surr)9880-12006/15/20 17:41Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)MDUnitDPreparedAnalyzed $C7-C12 (1C)$ ND25019ug/L06/15/20 19:25Dil FiSurrogate%RecoveryQualifierLimitsPreparedAnalyzedDil Fia,a,a-Trifluorotoluene (fid) (1C)8450-15006/15/20 19:25Dil FiMethod: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)06/11/20 18:2306/13/20 07:13Dil FiAnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil FiC12-C24NDH11049ug/L06/11/20 18:2306/13/20 07:13Dil FiC24-C40NDH270110ug/L06/11/20 18:2306/13/20 07:13Dil FiSurrogate%RecoveryQualifierLimitsPreparedAnalyzedDil Fio-terobenv/(Surr)8950-15006/13/20 07:13Dil FiDil Fi	1,2-Dichloroethane-d4 (Surr)	99		80 - 120					06/15/20 17:41	1
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	4-Bromonuorobenzene (Surr)	97		80 - 120					06/15/20 17:41	1
Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)AnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil Fi $C7-C12 (1C)$ ND $250$ 19 $ug/L$ DPreparedAnalyzedDil FiSurrogate%RecoveryQualifierLimitsDPreparedAnalyzedDil Fia, a, a-Trifluorotoluene (fid) (1C)%RecoveryQualifierLimitsPreparedAnalyzedDil FiMethod: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)PreparedAnalyzedDil FiAnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil FiC12-C24NDH11049ug/L06/11/20 18:2306/13/20 07:13Dil FiC24-C40NDH270110ug/L06/11/20 18:2306/13/20 07:13Dil FiSurrogate%RecoveryQualifierLimitsPreparedAnalyzedDil Fio-terphenvl (Surr)8920050050006/13/20 07:13Dil Fi	Toluene-d8 (Surr)	99		80 - 120					06/15/20 17:41	
Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)AnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil F $\overline{C7-C12}(1C)$ ND $\overline{250}$ 19 $\overline{ug/L}$ $\overline{D}$ PreparedAnalyzedDil FSurrogate%RecoveryQualifierLimits $\overline{50-150}$ PreparedAnalyzedDil FMethod: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)PreparedAnalyzedDil FMethod: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)PreparedAnalyzedDil F $\overline{C12-C24}$ NDH11049 $\overline{ug/L}$ $\overline{06/11/20}$ 18:23 $\overline{06/13/20}$ 07:13 $\overline{C24-C40}$ NDH270110 $ug/L$ $\overline{06/11/20}$ 18:23 $\overline{06/13/20}$ 07:13Surrogate%RecoveryQualifierLimitsPreparedPreparedAnalyzedDil F $\overline{0-triphenyl}(Surr)$ $\overline{89}$ $\overline{50-150}$ $\overline{06/11/20}$ 18:23 $\overline{06/13/20}$ 07:13 $\overline{06/13/20}$ 07:13		30		00 - 720					00/13/20 17.41	,
AnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil F. $C7-C12 (1C)$ ND $ND$ $250$ 19 $ug/L$ $D$ $O6/15/20 19:25$ $Dil F.$ Surrogate%RecoveryQualifierLimitsDiffPreparedAnalyzed $Dil F.$ $a,a,a-Trifluorotoluene (fid) (1C)$ $%Recovery$ Qualifier $Limits$ $Prepared$ $Analyzed$ $Dil F.$ Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)ResultQualifierRLMDLUnitDPreparedAnalyzedDil F. $C12-C24$ NDH11049 $ug/L$ $O6/11/20 18:23$ $O6/13/20 07:13$ $O6/13/20 07:13$ $Dil F.$ $C24-C40$ NDH270110 $ug/L$ $O6/11/20 18:23$ $O6/13/20 07:13$ $O6/13/20 07:13$ $Surrogate$ $%Recovery$ QualifierLimits $Dil F.$ $O6/13/20 07:13$ $Dil F.$ $o_{e-terphenyl} (Surr)$ $89$ $C150$ $50.150$ $O6/13/20 07:13$ $Dil F.$	Method: NWTPH-Gx - North	west - Volatile	e Petroleu	m Products (	GC)					
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
$\frac{Surrogate}{a,a,a-Trifluorotoluene (fid) (1C)} \qquad \frac{\% Recovery}{84} \qquad \frac{Qualifier}{50-150} \qquad \frac{Limits}{50-150} \qquad \qquad \frac{Prepared}{06/15/20 19:25} \qquad \frac{Analyzed}{06/15/20 19:25} \qquad \frac{Dil F}{06/15/20 19:25} \qquad Dil $	C7-C12 (1C)	ND		250	19	ug/L			06/15/20 19:25	1
a,a,a-Trifluorotoluene (fid) (1C)       84       50 - 150       06/15/20 19:25         Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)       Analyte       D       Prepared       Analyzed       Dil Fi         C12-C24       ND       H       110       49       ug/L       06/11/20 18:23       06/13/20 07:13       Dil Fi         C24-C40       ND       H       270       110       ug/L       06/11/20 18:23       06/13/20 07:13       Dil Fi         Surrogate       %Recovery       Qualifier       Limits       Dif Fi       Prepared       Analyzed       Dil Fi         o- terphenvl (Surr)       89       50 - 150       100       ug/L       06/11/20 18:23       06/13/20 07:13       Dil Fi	Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)AnalyteResultQualifierRLMDLUnitDPreparedAnalyzedDil FaC12-C24NDH11049ug/L06/11/20 18:2306/13/20 07:1306/13/20 07:13C24-C40NDH270110ug/L06/11/20 18:2306/13/20 07:13Surrogate%RecoveryQualifierLimitsPreparedAnalyzedDil Fao- terphenyl (Surr)8950-15006/13/20 07:1306/13/20 07:13	a,a,a-Trifluorotoluene (fid) (1C)			50 - 150					06/15/20 19:25	1
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	 Method: NWTPH-Dx - North	west - Semi-V	olatile Pet	roleum Prod	ucts (G	C)				
C12-C24         ND         H         110         49         ug/L         06/11/20         18:23         06/13/20         07:13           C24-C40         ND         H         270         110         ug/L         06/11/20         18:23         06/13/20         07:13           Surrogate         %Recovery         Qualifier         Limits         Prepared         Analyzed         Dil F           o- terphenyl (Surr)         89         50-150         50-150         06/13/20         07:13	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C24-C40       ND H       270       110 ug/L       06/11/20 18:23       06/13/20 07:13         Surrogate       %Recovery       Qualifier       Limits       Prepared       Analyzed       Dil Fo         o- terphenyl (Surr)       89       50-150       50-150       06/11/20 18:23       06/13/20 07:13	C12-C24	ND	H	110	49	ug/L		06/11/20 18:23	06/13/20 07:13	1
Surrogate%RecoveryQualifierLimitsPreparedAnalyzedDil Fo- terphenyl (Surr)8950 - 15006/11/20 18:2306/13/20 07:13	C24-C40	ND	Н	270	110	ug/L		06/11/20 18:23	06/13/20 07:13	1
o- terphenyl (Surr) 89 50 - 150 06/11/20 18:23 06/13/20 07:13	Surrogate	%Recovery	Qualifier	l imits				Prepared	Analyzed	Dil Fac
	o- terphenyl (Surr)			50 - 150				06/11/20 18:23	06/13/20 07 13	1

Job ID: 410-3631-1

Matrix: Groundwater

Lab Sample ID: 410-3631-6

#### Client Sample ID: GW-1121074-060320-EM-MW7 Date Collected: 06/03/20 16:40 Date Received: 06/06/20 09:26

Method: 8260C - Volatile O	rganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			06/15/20 18:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			06/15/20 18:03	1
Toluene	ND		1.0	0.20	ug/L			06/15/20 18:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			06/15/20 18:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120					06/15/20 18:03	1
4-Bromofluorobenzene (Surr)	99		80 - 120					06/15/20 18:03	1
Dibromofluoromethane (Surr)	100		80 - 120					06/15/20 18:03	1
Toluene-d8 (Surr)	98		80 - 120					06/15/20 18:03	1
Analyte	Result	Qualifier		MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
U7-U12 (1U)	95	J	250	19	ug/L			06/15/20 20.11	I
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	81		50 - 150					06/15/20 20:11	1
- Method: NWTPH-Dx - North	west - Semi-V	/olatile Pet	roleum Prod	ucts (G	C)				
Analyte	Result	Qualifier	RL	MDL	Únit	D	Prepared	Analyzed	Dil Fac
C12-C24	400	Н	120	55	ug/L		06/11/20 18:23	06/13/20 07:36	1
C24-C40	ND	Н	300	120	ug/L		06/11/20 18:23	06/13/20 07:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o- terphenyl (Surr)	88		50 - 150				06/11/20 18:23	06/13/20 07:36	1

#### Client Sample ID: GW-1121074-060320-EM-DUP Date Collected: 06/03/20 16:45 Date Received: 06/06/20 09:26

### Lab Sample ID: 410-3631-7 Matrix: Groundwater

Method: 8260C - Volatile Organic Compounds by GC/MS Result Qualifier Analyte RL MDL Unit D Prepared Dil Fac Analyzed ND Benzene 1.0 0.20 ug/L 06/15/20 18:25 1 Ethylbenzene ND 1.0 06/15/20 18:25 0.40 ug/L 1 Toluene ND 1.0 0.20 ug/L 06/15/20 18:25 1 Xylenes, Total ND 6.0 1.4 ug/L 06/15/20 18:25 1 Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac 1,2-Dichloroethane-d4 (Surr) 98 80 - 120 06/15/20 18:25 1 98 4-Bromofluorobenzene (Surr) 80 - 120 06/15/20 18:25 1 Dibromofluoromethane (Surr) 99 80 - 120 06/15/20 18:25 1 99 Toluene-d8 (Surr) 80 - 120 06/15/20 18:25 1 Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	60	J	250	19	ug/L			06/15/20 20:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	79		50 - 150					06/15/20 20:34	1

Eurofins Lancaster Laboratories Env, LLC

Job ID: 410-3631-1

<b>Client Sample ID: GW-1</b>	121074-0603		Lab Sample ID: 410-3631-7						
Date Collected: 06/03/20 16:4	45						r	Aatrix: Groun	dwater
Date Received: 06/06/20 09:2	26								
					•				
Method: NWIPH-DX - North	Iwest - Semi-v		roleum Prod		<mark>ر ا</mark>		Drenered	Anolymod	
	Result	Quaimer	RL		Unit		Prepared		
C12-C24	270	н	100	45	ug/L		06/11/20 18:23	06/13/20 07:58	1
C24-C40	ND	Н	250	100	ug/L		06/11/20 18:23	06/13/20 07:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o- terphenyl (Surr)	88		50 - 150				06/11/20 18:23	06/13/20 07:58	1
Client Sample ID: Trip B	Blank						Lab Samp	le ID: 410-3	631-8
Date Collected: 06/03/20 00:0	00							Matrix	Water
Date Received: 06/06/20 09:2	26							matrix	mator
Method: 8260C - Volatile Or	rganic Compo	unds by G	C/MS						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			06/15/20 12:13	1
Ethylbenzene	ND		1.0	0.40	ug/L			06/15/20 12:13	1
Toluene	ND		1.0	0.20	ug/L			06/15/20 12:13	1
Xylenes, Total	ND		6.0	1.4	ug/L			06/15/20 12:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120					06/15/20 12:13	1
4-Bromofluorobenzene (Surr)	97		80 - 120					06/15/20 12:13	1
Dibromofluoromethane (Surr)	101		80 - 120					06/15/20 12:13	1
Toluene-d8 (Surr)	97		80 - 120					06/15/20 12:13	1
	waat Valatik	Detroleur	m Broducto (						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	ND		250	19	ug/L			06/15/20 16:17	1
Surrogate	%Recoverv	Qualifier	Limits				Prepared	Analvzed	Dil Fac
a a a-Trifluorotoluene (fid) (1C)			50 - 150					06/15/20 16:17	1
	00		50 - 700					00,10,2010.11	'

# **Surrogate Summary**

#### Method: 8260C - Volatile Organic Compounds by GC/MS Matrix: Groundwater

		Percent Surrogate Recovery (Acceptance Limits)							
		DCA	BFB	DBFM	TOL				
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)				
410-3631-1	GW-1121074-060320-EM-MP1F	101	100	100	96				
410-3631-2	GW-1121074-060320-EM-MW2	101	98	101	95				
410-3631-3	GW-1121074-060320-EM-MW1	99	96	98	97				
410-3631-4	GW-1121074-060320-EM-MW5	102	97	101	98				
410-3631-5	GW-1121074-060320-EM-MW1	99	97	99	98				
410-3631-6		99	99	100	98				
410-3631-7	GW-1121074-060320-EM-DUP	98	98	99	99				

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

#### Method: 8260C - Volatile Organic Compounds by GC/MS Matrix: Water

-			Pe	ercent Surre	ogate Reco
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-3631-8	Trip Blank	102	97	101	97
LCS 410-13066/5	Lab Control Sample	100	100	99	99
MB 410-13066/7	Method Blank	99	97	98	98
MRL 410-13066/6	Lab Control Sample	101	100	99	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

# Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Matrix: Groundwater

Prep Type: Total/NA

Prep Type: Total/NA

13

Percent Surrogate Recovery (Acceptance Limits)

		TFT-F1		-		
Lab Sample ID	Client Sample ID					
410-3631-1	GW-1121074-060320-EM-MP1F	99	 		 	 
410-3631-2	GW-1121074-060320-EM-MW2	98				
Surrogate Legend						

TFT-F = a,a,a-Trifluorotoluene (fid)

#### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) Matrix: Groundwater

Prep Type: Total/NA

			Percent Surrogate Recovery (Acceptance Limits)
		TFT-F1	
Lab Sample ID	Client Sample ID	(50-150)	
410-3631-3	GW-1121074-060320-EM-MW1	82	

**Prep Type: Total/NA** 

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# **Surrogate Summary**

Client: GHD Services Inc.

Job ID: 410-3631-1

Due! = =1/0!te: 1101071	4 (-elder ( orrections ( enter		
Project/Site: 11210/1		<b>D</b> ( 1	
Method: NWIPH	-Gx - Northwest - Volatile	e Petroleu	im Products (GC) (Continued)
Matrix: Groundwate	r		Prep Type: Total/NA
			Percent Surrogate Recovery (Acceptance Limits)
		TFT-F1	
Lab Sample ID	Client Sample ID	(50-150)	
410-3631-4	GW-1121074-060320-EM-MW5	80	
410-3631-5	GW-1121074-060320-EM-MW1	84	
	2		
410-3631-6	GW-1121074-060320-EM-MW7	81	
410-3631-7	GW-1121074-060320-EM-DUP	79	
Surrogate Legend			
TFT-F = a,a,a-Trifluor	otoluene (fid)		
Method: NWTPH	-Gx - Northwest - Volatile	e Petroleu	Im Products (GC)
Matrix: Water			Prep Type: Total/NA
_			
		<b>TET 6</b> 4	Percent Surrogate Recovery (Acceptance Limits)
	<b></b>	111-11	
Lab Sample ID	Client Sample ID	(50-150)	
410-3631-8	Trip Blank	80	
LCS 410-13147/5	Lab Control Sample	84	
LCSD 410-13147/6	Lab Control Sample Dup	79	
MB 410-13147/4	Method Blank	83	
Surrogate Legend			
TFT-F = a,a,a-Trifluor	otoluene (fid)		
TFT-F = a,a,a-Trifluor	otoluene (fid)	Potrolou	m Products (GC)
TFT-F = a,a,a-Trifluor Method: NWTPH	otoluene (fid) -Gx - Northwest - Volatilo	e Petroleu	Im Products (GC)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water	otoluene (fid) -Gx - Northwest - Volatilo	e Petroleu	Im Products (GC) Prep Type: Total/NA
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water	otoluene (fid) -Gx - Northwest - Volatile	e Petroleu	Im Products (GC) Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water	otoluene (fid) -Gx - Northwest - Volatilo	e Petroleu	Im Products (GC) Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water - Lab Sample ID	otoluene (fid) - <b>Gx - Northwest - Volatil</b> o Client Sample ID	e Petroleu	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample	<b>Petroleu</b> TFT-F1 91	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup	<b>Petroleu</b> <b>TFT-F1</b> 91 93	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank	<b>Petroleu</b> <b>TFT-F1</b> 91 93 99	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank	<b>E Petroleu</b> <b>TFT-F1</b> 91 93 99	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend	Otoluene (fid)     GX - Northwest - Volatile     Client Sample ID     Lab Control Sample     Lab Control Sample Dup     Method Blank	<b>E Petroleu</b> <b>TFT-F1</b> 91 93 99	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank otoluene (fid)	<b>Petroleu</b> <b>TFT-F1</b> 91 93 99	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor Method: NWTPH	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank otoluene (fid) -Dx - Northwest - Semi-V	e Petroleu TFT-F1 91 93 99	Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Groundwate	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank otoluene (fid) -Dx - Northwest - Semi-V	e Petroleu TFT-F1 91 93 99 Volatile Pe	Im Products (GC)         Percent Surrogate Recovery (Acceptance Limits)             Image: Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Groundwate	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank otoluene (fid) -Dx - Northwest - Semi-V r	rFT-F1	Im Products (GC)       Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Groundwate	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank otoluene (fid) -Dx - Northwest - Semi-V r	e Petroleu TFT-F1 91 93 99	Im Products (GC)       Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Groundwate	otoluene (fid) -Gx - Northwest - Volatile Client Sample ID Lab Control Sample Lab Control Sample Dup Method Blank otoluene (fid) -Dx - Northwest - Semi-V r	е Petroleu тғт-ғ1 91 93 99 Volatile Pe	Im Products (GC)       Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Groundwate	Otoluene (fid)     Gx - Northwest - Volatile     Client Sample ID     Lab Control Sample     Lab Control Sample Dup     Method Blank  otoluene (fid) -Dx - Northwest - Semi-V r  Client Sample ID	e Petroleu TFT-F1 91 93 99 /olatile Pe OTP (50-150)	Im Products (GC)       Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Water Lab Sample ID LCS 410-12301/6 LCSD 410-12301/7 MB 410-12301/5 Surrogate Legend TFT-F = a,a,a-Trifluor Method: NWTPH Matrix: Groundwate Lab Sample ID 410-3631-1	•Gx - Northwest - Volatile         •Gx - Northwest - Volatile         • Client Sample ID         Lab Control Sample         Lab Control Sample Dup         Method Blank         otoluene (fid)         •Dx - Northwest - Semi-V         r         Client Sample ID         GW-1121074-060320-EM-MP1F	e Petroleu TFT-F1 91 93 99 /olatile Pe OTP (50-150) 69	Im Products (GC)       Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         Lab Sample ID         410-3631-1         410-3631-2	otoluene (fid)         -Gx - Northwest - Volatile         -Gx - Northwest - Volatile         Lab Control Sample         Lab Control Sample Dup         Method Blank         otoluene (fid)         -Dx - Northwest - Semi-V         r         Client Sample ID         GW-1121074-060320-EM-MP1F         GW-1121074-060320-EM-MW2	e Petroleu TFT-F1 91 93 99 Volatile Pe OTP (50-150) 69 92	Im Products (GC)   Percent Surrogate Recovery (Acceptance Limits)   Image: Content of the second
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwater         Lab Sample ID         410-3631-1         410-3631-2         410-3631-3	otoluene (fid)         -Gx - Northwest - Volatile	e Petroleu TFT-F1 91 93 99 Volatile Pe (50-150) 69 92 92	Im Products (GC)   Percent Surrogate Recovery (Acceptance Limits)     troleum Products (GC)   Prep Type: Total/NA   Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         410-3631-1         410-3631-2         410-3631-3	otoluene (fid)         -Gx - Northwest - Volatile         -Bab Control Sample ID         Lab Control Sample Dup         Method Blank         otoluene (fid)         -Dx - Northwest - Semi-V         r         GW-1121074-060320-EM-MP1F         GW-1121074-060320-EM-MW2         GW-1121074-060320-EM-MW1         1	e Petroleu TFT-F1 91 93 99 Volatile Pe OTP (50-150) 69 92 92 92	Im Products (GC)   Percent Surrogate Recovery (Acceptance Limits)   Image: troleum Products (GC)   Prep Type: Total/NA   Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         410-3631-1         410-3631-3         410-3631-4	otoluene (fid)         -Gx - Northwest - Volatile         Lab Control Sample ID         Lab Control Sample Dup         Method Blank         otoluene (fid)         -Dx - Northwest - Semi-V         r         Client Sample ID         GW-1121074-060320-EM-MP1F         GW-1121074-060320-EM-MW2         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1	e Petroleu TFT-F1 91 93 99 Volatile Pe OTP (50-150) 69 92 92 92 91	Im Products (GC)   Percent Surrogate Recovery (Acceptance Limits)     troleum Products (GC)   Prep Type: Total/NA   Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         Lab Sample ID         410-3631-1         410-3631-2         410-3631-4	otoluene (fid)         -Gx - Northwest - Volatile         Lab Control Sample         Lab Control Sample Dup         Method Blank         otoluene (fid)         -Dx - Northwest - Semi-V         r         Client Sample ID         GW-1121074-060320-EM-MP1F         GW-1121074-060320-EM-MW2         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW5         D	<b>Petroleu TFT-F1</b> 91 93 99 <b>Volatile Pe OTP</b> (50-150) 69 92 92 91	Im Products (GC)         Percent Surrogate Recovery (Acceptance Limits)         troleum Products (GC)         Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         410-3631-1         410-3631-3         410-3631-4         410-3631-5	otoluene (fid)         -Gx - Northwest - Volatile         Lab Control Sample ID         Lab Control Sample Dup         Method Blank         otoluene (fid)         -Dx - Northwest - Semi-V         r         GW-1121074-060320-EM-MP1F         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1	<b>Petroleu</b> <b>TFT-F1</b> 91 93 99 <b>Volatile Pe</b> <b>OTP</b> (50-150) 69 92 92 91 89	Im Products (GC)         Percent Surrogate Recovery (Acceptance Limits)         troleum Products (GC)         Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         410-3631-1         410-3631-3         410-3631-4         410-3631-5         410-3631-5	otoluene (fid)         -Gx - Northwest - Volatile         Lab Control Sample ID         Lab Control Sample Dup         Method Blank         otoluene (fid)         -Dx - Northwest - Semi-V         r         GW-1121074-060320-EM-MP1F         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1         2         GW-1121074-060320-EM-MW1	<b>Petroleu TFT-F1</b> 91 93 99 <b>Volatile Pe OTP (50-150)</b> 69 92 92 91 89 89	Im Products (GC)         Percent Surrogate Recovery (Acceptance Limits)         troleum Products (GC)         Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCSD 410-12301/6         LCSD 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         410-3631-1         410-3631-2         410-3631-3         410-3631-4         410-3631-5         410-3631-6	otoluene (fid)         -Gx - Northwest - Volatile         Lab Control Sample ID         Lab Control Sample Dup         Method Blank         otoluene (fid)         -Dx - Northwest - Semi-V         GW-1121074-060320-EM-MP1F         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW1         1         GW-1121074-060320-EM-MW5         D         GW-1121074-060320-EM-MW1         2         GW-1121074-060320-EM-MW1         2         GW-1121074-060320-EM-MW7         CW 4124074 000030-EM-MW7	e Petroleu TFT-F1 91 93 99 Volatile Pe OTP (50-150) 69 92 92 91 89 88 88	Im Products (GC)       Prep Type: Total/NA         Percent Surrogate Recovery (Acceptance Limits)
TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Water         Lab Sample ID         LCS 410-12301/6         LCS 410-12301/7         MB 410-12301/5         Surrogate Legend         TFT-F = a,a,a-Trifluor         Method: NWTPH         Matrix: Groundwate         Matrix: Groundwate         Lab Sample ID         410-3631-1         410-3631-2         410-3631-3         410-3631-5         410-3631-6         410-3631-7	Client Sample ID           Lab Control Sample           Lab Control Sample           Lab Control Sample           Dup Method Blank             Otoluene (fid)             -Dx - Northwest - Semi-V             GW-1121074-060320-EM-MP1F           GW-1121074-060320-EM-MW1           1           GW-1121074-060320-EM-MW1           2           GW-1121074-060320-EM-MW1           2           GW-1121074-060320-EM-MW1           2           GW-1121074-060320-EM-MW7           GW-1121074-060320-EM-MW7	e Petroleu TFT-F1 91 93 99 <b>Volatile Pe (50-150)</b> 69 92 92 91 89 88 88	Im Products (GC)   Percent Surrogate Recovery (Acceptance Limits)   troleum Products (GC)   Prep Type: Total/NA   Percent Surrogate Recovery (Acceptance Limits)

# Surrogate Summary

Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center OTP = o- terphenyl (Surr)

#### Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) **Matrix: Water** Prep Type: Total/NA Percent Surrogate Recovery (Acceptance Limits) OTP Lab Sample ID **Client Sample ID** (50-150) LCS 410-12412/2-A Lab Control Sample 86 LCSD 410-12412/3-A Lab Control Sample Dup 84 MB 410-12412/1-A Method Blank 90

#### Surrogate Legend

OTP = o- terphenyl (Surr)

# Method: 8260C - Volatile Organic Compounds by GC/MS

#### Lab Sample ID: MB 410-13066/7 **Matrix: Water**

Analysis Batch: 13066

### **Client Sample ID: Method Blank** Prep Type: Total/NA

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample** 

**Prep Type: Total/NA** 

Prep Type: Total/NA

MB MB Analyte **Result Qualifier** RL MDL Unit D Prepared Analyzed Dil Fac Benzene ND 1.0 0.20 ug/L 06/15/20 11:26 1 Ethylbenzene 06/15/20 11:26 ND 1.0 0.40 ug/L 1 ND 06/15/20 11:26 Toluene 1.0 0.20 ug/L 1 Xylenes, Total ND 6.0 1.4 ug/L 06/15/20 11:26 1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		06/15/20 11:26	1
4-Bromofluorobenzene (Surr)	97		80 - 120		06/15/20 11:26	1
Dibromofluoromethane (Surr)	98		80 - 120		06/15/20 11:26	1
Toluene-d8 (Surr)	98		80 - 120		06/15/20 11:26	1

#### Lab Sample ID: LCS 410-13066/5 Matrix: Water

### Analysis Batch: 13066

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	20.0	19.2		ug/L		96	80 - 120	
Ethylbenzene	20.0	20.3		ug/L		101	80 - 120	
Toluene	20.0	19.7		ug/L		98	80 - 120	
Xylenes, Total	60.0	62.2		ug/L		104	80 - 120	

	LCS LCS							
Surrogate	%Recovery	Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	100		80 - 120					
4-Bromofluorobenzene (Surr)	100		80 - 120					
Dibromofluoromethane (Surr)	99		80 - 120					
Toluene-d8 (Surr)	99		80 - 120					

#### Lab Sample ID: MRL 410-13066/6 Matrix: Water Analysis Batch: 13066

	Spike	MRL	MRL				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	1.00	ND		ug/L		0	
Ethylbenzene	1.00	0.991	J	ug/L		99	
Toluene	1.00	1.06		ug/L		106	
Xylenes, Total	3.00	2.83	J	ug/L		94	

	MRL MRL							
Surrogate	%Recovery	Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	101		80 - 120					
4-Bromofluorobenzene (Surr)	100		80 - 120					
Dibromofluoromethane (Surr)	99		80 - 120					
Toluene-d8 (Surr)	99		80 - 120					

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5

8

13

# **QC Sample Results**

			QC	Sam	ple	Resi	ults						
Client: GHD Services Inc.	or Correction	~ C	ontor									Job ID: 410	-3631-1
Mothod: NWTPH Gx	Northwost	s Co		Potrol	0.1100	Drog	lucte		2)				
	NOILIIWESI	v	Ulatile	Fellor	eun	IFIU	JUCIS	(60	<i>.</i> )				
Lab Sample ID: MB 410-1	2301/5									CI	lient Sam	ple ID: Metho	d Blank
Matrix: Water												Prep Type: T	otal/NA
Analysis Batch: 12301			мр										
Analyto	Pa	MB MB	MB Qualifier		ы		יו וחא	nit		п	Propared	Analyzod	Dil Eac
C7-C12 (1C)		38.3	J		250		19 u	a/L			Tiepareu	-1000000000000000000000000000000000000	1
0.0.2(.0)								<i></i>					
<b>C</b>	<b>6</b> / <b>D</b> = = =	MB	MB	1							Duenensel	Amelymod	D# 5++
Surrogate	%Reco	very	Qualifier								Prepared	- Analyzed	
		33										00/11/20 14:43	· ·
Lab Sample ID: LCS 410-	12301/6								Clie	nt S	ample ID:	: Lab Control	Sample
Matrix: Water											-	Prep Type: T	otal/NA
Analysis Batch: 12301				_									
• • •				Spike		LCS	LCS			-		%Rec.	
	·			Added		Result	Qualifi	er L		L	J %Rec		
C7-C12 (1C)				1100		1030		ι	ig/L		94	04 - 131	
	LCS	LCS	5										
Surrogate	%Recovery	Qua	alifier	Limits	_								
a,a,a-Trifluorotoluene (fid) (1C) _	91												
- Lab Sample ID: LCSD 410	-12301/7							СІІ	ont S	amnl	o ID: I ab	Control Sam	
Matrix: Water	-12301/1									ampi		Pren Type <sup>-</sup> T	otal/NA
Analysis Batch: 12301													
				Spike		LCSD	LCSD					%Rec.	RPD
Analyte				Added		Result	Qualifi	er l	Jnit	[	D %Rec	Limits RPI	D Limit
C7-C12 (1C)				1100		1030		ū	ıg/L		93	64 - 131	0 30
	LCSD	LCS	SD										
Surrogate	%Recovery	Qua	alifier	Limits									
a,a,a-Trifluorotoluene (fid) (1C)	93				-								
=													
Lab Sample ID: MB 410-1	3147/4									C	lient Sam	ple ID: Metho	d Blank
Matrix: Water												Prep Type: T	otal/NA
Analysis Batch: 13147		MR	MB										
Analyte	Re	sult	Qualifier		RL		MDL U	nit		D	Prepared	Analvzed	Dil Fac
C7-C12 (1C)		ND			250		19 ug	g/L				- 06/15/20 14:43	1
		мп	MB										
Surrogate	%Paga		Nualifior	l im	nite						Propered	Analyzad	Dil Eac
a.a.a-Trifluorotoluene (fid) (1C)	/0RECU	<u>83</u>	Quaimer		150						riepareu	- <u>- 06/15/20 14.43</u>	1
		00		00-								00.10.2014.40	,
Lab Sample ID: LCS 410- Matrix: Water	13147/5								Clie	ent S	ample ID	: Lab Control S Prep Type: T	Sample otal/NA
Analysis Batch: 13147													
,				Spike		LCS	LCS					%Rec.	
Analyte				Added		Result	Qualifi	er l	Jnit	[	D %Rec	Limits	
C7-C12 (1C)				1100		1000		ι	ıg/L		91	64 - 131	
	LCS	LCS	6										
Surrogate	%Recoverv	Qua	alifier	Limits									

%Recovery a,a,a-Trifluorotoluene (fid) (1C) 84 50 - 150

Eurofins Lancaster Laboratories Env, LLC
### **QC Sample Results**

Job ID: 410-3631-1

Method: NWTPH-Gx -	Northwest	: - V	olatile	Petroleur	n Proc	ducts (	GC) (Co	ontin	ued)			
Lab Sample ID: LCSD 410 Matrix: Water	-13147/6					•	Client Sa	mple	ID: Lab	Control Prep Ty	Sampl pe: To	le Dup tal/NA
Analysis Batch: 13147												
				Spike	LCSD	LCSD		_		%Rec.		RPD
Analyte				Added	Result	Qualifier	Unit	D	<u>%Rec</u>	Limits	RPD	Limit
07-012 (10)				1100	1010		ug/L		92	64 - 131	1	30
	LCSD	LCS	D									
Surrogate	%Recovery	Qua	lifier	Limits								
a,a,a-Trifluorotoluene (fid) (1C)	79			50 - 150								
Method: NWTPH-Dx - I	Northwest	- S	emi-Vo	latile Pet	roleun	n Produ	ucts (G	C)				
Lab Sample ID: MB 410-1	2412/1-4							Clie	ent Sam	ole ID: M	ethod	Blank
Matrix: Water								•	un oann	Prep Tv	pe: To	tal/NA
Analysis Batch: 12767										Prep E	Batch:	12412
-		MB	МВ									
Analyte	Re	sult	Qualifier	RL	-	MDL Unit	I	D P	repared	Analyz	zed	Dil Fac
C12-C24		ND		100	)	45 ug/L		06/1	1/20 18:23	06/13/20	01:55	1
C24-C40		ND		250	)	100 ug/L		06/1	1/20 18:23	06/13/20	01:55	1
		MB	МВ									
Surrogate	%Reco	very	Qualifier	Limits				P	repared	Analyz	zed	Dil Fac
o- terphenyl (Surr)		90		50 - 150	-			06/1	1/20 18:23	06/13/20	01:55	1
Lab Sample ID: LCS 410-4	12/12/2-0						Clie	nt Sai	nnle ID:	Lab Cor	trol S	amnlo
Matrix: Water							one			Pren Ty	ne <sup>.</sup> To	tal/NA
Analysis Batch: 12767										Pren F	Batch	12412
				Spike	LCS	LCS				%Rec.	, acom	
Analyte				Added	Result	Qualifier	Unit	D	%Rec	Limits		
C12-C24				600	300		ug/L		50	10 - 115		
	105	LCS										
Surrogate	%Recoverv	Qua	lifier	Limits								
o- terphenyl (Surr)	86			50 - 150								
Lab Sample ID: LCSD 410	-12412/3-A					(	Client Sa	mple	ID: Lab	Control	Samp	le Dup
Matrix: Water										Prep Ty	pe: To	tal/NA
Analysis Batch: 12767										Prep E	Batch:	12412
Analista				Spike	LCSD	LCSD	11	-	0/ D	%Rec.		RPD
				Added	Result	Qualifier		<u>ם</u>	%Rec		- UUN	
012-024				000	280		ug/L		47	10 - 115	1	20
	LCSD	LCS	D									
Surrogate	%Recovery	Qua	lifier	Limits								
o- terphenyl (Surr)	84	_		50 - 150								

### **QC Association Summary**

### Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center

Job ID: 410-3631-1

### GC/MS VOA

### Analysis Batch: 13066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-3631-1	GW-1121074-060320-EM-MP1R	Total/NA	Groundwater	8260C	
410-3631-2	GW-1121074-060320-EM-MW2	Total/NA	Groundwater	8260C	
410-3631-3	GW-1121074-060320-EM-MW11	Total/NA	Groundwater	8260C	
410-3631-4	GW-1121074-060320-EM-MW5D	Total/NA	Groundwater	8260C	
410-3631-5	GW-1121074-060320-EM-MW12	Total/NA	Groundwater	8260C	
410-3631-6	GW-1121074-060320-EM-MW7	Total/NA	Groundwater	8260C	
410-3631-7	GW-1121074-060320-EM-DUP	Total/NA	Groundwater	8260C	
410-3631-8	Trip Blank	Total/NA	Water	8260C	
MB 410-13066/7	Method Blank	Total/NA	Water	8260C	
LCS 410-13066/5	Lab Control Sample	Total/NA	Water	8260C	
MRL 410-13066/6	Lab Control Sample	Total/NA	Water	8260C	

### GC VOA

### Analysis Batch: 12301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method Prep E	Batch
410-3631-1	GW-1121074-060320-EM-MP1R	Total/NA	Groundwater	NWTPH-Gx	
410-3631-2	GW-1121074-060320-EM-MW2	Total/NA	Groundwater	NWTPH-Gx	
MB 410-12301/5	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 410-12301/6	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 410-12301/7	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

### Analysis Batch: 13147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-3631-3	GW-1121074-060320-EM-MW11	Total/NA	Groundwater	NWTPH-Gx	
410-3631-4	GW-1121074-060320-EM-MW5D	Total/NA	Groundwater	NWTPH-Gx	
410-3631-5	GW-1121074-060320-EM-MW12	Total/NA	Groundwater	NWTPH-Gx	
410-3631-6	GW-1121074-060320-EM-MW7	Total/NA	Groundwater	NWTPH-Gx	
410-3631-7	GW-1121074-060320-EM-DUP	Total/NA	Groundwater	NWTPH-Gx	
410-3631-8	Trip Blank	Total/NA	Water	NWTPH-Gx	
MB 410-13147/4	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 410-13147/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 410-13147/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

### GC Semi VOA

### Prep Batch: 12412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-3631-1	GW-1121074-060320-EM-MP1R	Total/NA	Groundwater	3510C	
410-3631-2	GW-1121074-060320-EM-MW2	Total/NA	Groundwater	3510C	
410-3631-3	GW-1121074-060320-EM-MW11	Total/NA	Groundwater	3510C	
410-3631-4	GW-1121074-060320-EM-MW5D	Total/NA	Groundwater	3510C	
410-3631-5	GW-1121074-060320-EM-MW12	Total/NA	Groundwater	3510C	
410-3631-6	GW-1121074-060320-EM-MW7	Total/NA	Groundwater	3510C	
410-3631-7	GW-1121074-060320-EM-DUP	Total/NA	Groundwater	3510C	
MB 410-12412/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-12412/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-12412/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

### Analysis Batch: 12767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-3631-1	GW-1121074-060320-EM-MP1R	Total/NA	Groundwater	NWTPH-Dx	12412

### **QC** Association Summary

### Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center

### GC Semi VOA (Continued)

### Analysis Batch: 12767 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-3631-2	GW-1121074-060320-EM-MW2	Total/NA	Groundwater	NWTPH-Dx	12412
410-3631-3	GW-1121074-060320-EM-MW11	Total/NA	Groundwater	NWTPH-Dx	12412
410-3631-4	GW-1121074-060320-EM-MW5D	Total/NA	Groundwater	NWTPH-Dx	12412
410-3631-5	GW-1121074-060320-EM-MW12	Total/NA	Groundwater	NWTPH-Dx	12412
410-3631-6	GW-1121074-060320-EM-MW7	Total/NA	Groundwater	NWTPH-Dx	12412
410-3631-7	GW-1121074-060320-EM-DUP	Total/NA	Groundwater	NWTPH-Dx	12412
MB 410-12412/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	12412
LCS 410-12412/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	12412
LCSD 410-12412/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	12412

Job ID: 410-3631-1

### Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center

### Client Sample ID: GW-1121074-060320-EM-MP1R Date Collected: 06/03/20 09:00 Date Received: 06/06/20 09:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 16:14	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		5	12301	06/11/20 23:43	JJT8	ELLE
Total/NA	Prep	3510C			12412	06/11/20 18:23	QQ3P	ELLE
Total/NA	Analysis	NWTPH-Dx		1	12767	06/13/20 05:42	IUSB	ELLE

### Client Sample ID: GW-1121074-060320-EM-MW2 Date Collected: 06/03/20 10:10 Date Received: 06/06/20 09:26

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 16:35	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		1	12301	06/11/20 23:17	JJT8	ELLE
Total/NA	Prep	3510C			12412	06/11/20 18:23	QQ3P	ELLE
Total/NA	Analysis	NWTPH-Dx		1	12767	06/13/20 06:05	IUSB	ELLE

### Client Sample ID: GW-1121074-060320-EM-MW11 Date Collected: 06/03/20 11:20 Date Received: 06/06/20 09:26

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 16:57	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		1	13147	06/15/20 18:38	JJT8	ELLE
Total/NA	Prep	3510C			12412	06/11/20 18:23	QQ3P	ELLE
Total/NA	Analysis	NWTPH-Dx		1	12767	06/13/20 06:27	IUSB	ELLE

### Client Sample ID: GW-1121074-060320-EM-MW5D Date Collected: 06/03/20 13:30 Date Received: 06/06/20 09:26

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 17:19	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		1	13147	06/15/20 19:01	JJT8	ELLE
Total/NA	Prep	3510C			12412	06/11/20 18:23	QQ3P	ELLE
Total/NA	Analysis	NWTPH-Dx		1	12767	06/13/20 06:50	IUSB	ELLE

### Client Sample ID: GW-1121074-060320-EM-MW12 Date Collected: 06/03/20 15:00 Date Received: 06/06/20 09:26

—	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 17:41	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		1	13147	06/15/20 19:25	JJT8	ELLE
Total/NA	Prep	3510C			12412	06/11/20 18:23	QQ3P	ELLE
Total/NA	Analysis	NWTPH-Dx		1	12767	06/13/20 07:13	IUSB	ELLE

Job ID: 410-3631-1

# Lab Sample ID: 410-3631-1

Matrix: Groundwater

# 10

### Lab Sample ID: 410-3631-3 Matrix: Groundwater

Lab Sample ID: 410-3631-2

Matrix: Groundwater

Lab Sample ID: 410-3631-4 Matrix: Groundwater

Lab Sample ID: 410-3631-5

Matrix: Groundwater

### Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center

### Client Sample ID: GW-1121074-060320-EM-MW7 Date Collected: 06/03/20 16:40 Date Received: 06/06/20 09:26

Ргер Туре	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 18:03	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		1	13147	06/15/20 20:11	JJT8	ELLE
Total/NA	Prep	3510C			12412	06/11/20 18:23	QQ3P	ELLE
Total/NA	Analysis	NWTPH-Dx		1	12767	06/13/20 07:36	IUSB	ELLE

### Client Sample ID: GW-1121074-060320-EM-DUP Date Collected: 06/03/20 16:45 Date Received: 06/06/20 09:26

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 18:25	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		1	13147	06/15/20 20:34	JJT8	ELLE
Total/NA	Prep	3510C			12412	06/11/20 18:23	QQ3P	ELLE
Total/NA	Analysis	NWTPH-Dx		1	12767	06/13/20 07:58	IUSB	ELLE

### **Client Sample ID: Trip Blank** Date Collected: 06/03/20 00:00 Date Received: 06/06/20 09:26

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	13066	06/15/20 12:13	NSK7	ELLE
Total/NA	Analysis	NWTPH-Gx		1	13147	06/15/20 16:17	JJT8	ELLE

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Job ID: 410-3631-1

### Lab Sample ID: 410-3631-6 Matrix: Groundwater

Lab Sample ID: 410-3631-7

Lab Sample ID: 410-3631-8

Matrix: Groundwater

**Matrix: Water** 

Project/Site: 1121071	4 Geiger Correction	ns Center									
Laboratory: Euro Unless otherwise noted, al	aboratory: Eurofins Lancaster Laboratories Env, LLC nless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.										
Authority	Ρ	rogram	Identification Number	Expiration Date							
Washington	S	tate	C457	04-11-21							
The following analyte the agency does not o	s are included in this rep offer certification.	port, but the laboratory is not	certified by the governing authority.	This list may include analytes for which							
Analysis Method	Prep Method	Matrix	Analyte								
8260C		Groundwater	Benzene								
8260C		Groundwater	Ethylbenzene								
8260C		Groundwater	Toluene								
8260C		Groundwater	Xylenes, Total								
8260C		Water	Benzene								
8260C		Water	Ethylbenzene								
8260C		Water	Toluene								
8260C		Water	Xylenes, Total								
NWTPH-Dx	3510C	Groundwater	C12-C24								
NWTPH-Gx		Groundwater	C7-C12 (1C)								
NWTPH-Gx		Water	C7-C12 (1C)								

# **Accreditation/Certification Summary**

Client: GHD Services Inc.

Job ID: 410-3631-1

Eurofins Lancaster Laboratories Env, LLC

### **Method Summary**

### Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	ELLE
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

### **Protocol References:**

NWTPH = Northwest Total Petroleum Hydrocarbon

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

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

### Sample Summary

Client: GHD Services Inc. Project/Site: 11210714 Geiger Corrections Center Job ID: 410-3631-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-3631-1	GW-1121074-060320-EM-MP1R	Groundwater	06/03/20 09:00	06/06/20 09:26
410-3631-2	GW-1121074-060320-EM-MW2	Groundwater	06/03/20 10:10	06/06/20 09:26
410-3631-3	GW-1121074-060320-EM-MW11	Groundwater	06/03/20 11:20	06/06/20 09:26
410-3631-4	GW-1121074-060320-EM-MW5D	Groundwater	06/03/20 13:30	06/06/20 09:26
410-3631-5	GW-1121074-060320-EM-MW12	Groundwater	06/03/20 15:00	06/06/20 09:26
410-3631-6	GW-1121074-060320-EM-MW7	Groundwater	06/03/20 16:40	06/06/20 09:26
410-3631-7	GW-1121074-060320-EM-DUP	Groundwater	06/03/20 16:45	06/06/20 09:26
410-3631-8	Trip Blank	Water	06/03/20 00:00	06/06/20 09:26

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# **COC #** 397642

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Project Name/#:	PWSID #:						ge												Prese	ervation	Codes
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Project Manager:	P.O. #:				<u>ě</u>	σ	က		ιŋ											з <b>В</b> =	NaOH
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6W-1121074-060320-EM-MWSD	6/3	1330	$\overline{X}$		1				8	X	X	X			1			İ			
1-W-1121074-060320-EM-MW12	. 1.13	1500	X		1				8	Ŕ	X	$\mathbf{\hat{x}}$									*****
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1-W-1171074-060320-EM-DUP	6/3	1645	$\mathbf{\nabla}$						$\overline{\mathbf{x}}$	$\overline{\mathbf{X}}$	$\overrightarrow{\mathbf{v}}$	$\mathbf{x}$								<u></u>	
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The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client. Page 25 of 26



Client: GHD Services Inc.

### Login Number: 3631 List Number: 1 Creator: Sanchez, Melvin E

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ( =6C, not frozen).</td <td>True</td> <td></td>	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ( =6C, not frozen).</td <td>N/A</td> <td></td>	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

Job Number: 410-3631-1

List Source: Eurofins Lancaster Laboratories Env

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# Environment Testing America

# **ANALYTICAL REPORT**

Eurofins Lancaster Laboratories Env, LLC 2425 New Holland Pike Lancaster, PA 17601 Tel: (717)656-2300

### Laboratory Job ID: 410-13071-1

Client Project/Site: 11210714 Geiger Corrections

### For:

GHD Inc. 4550 Kruse Way Suite 300 Lake Oswego, Oregon 97035

Attn: Jeffrey Cloud

Miol Mat

Authorized for release by: 9/22/2020 4:38:33 PM Nicole Maljovec, Client Services Manager (717)556-7259 NicoleMaljovec@EurofinsUs.com

Designee for

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Visit us at:

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Katherine Klinefelter, Principal Project Manager (717)556-7256 katherineklinefelter@eurofinsus.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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

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

Laboratory Job ID: 410-13071-1

\* QC recoveries that exceed the upper limits and are associated with non-detect samples are qualified but no further narration is needed since the bias is high and does not change a non-detect result.

\* Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.

\* Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Mil Mat

Nicole Maljovec Client Services Manager 9/22/2020 4:38:33 PM

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	11
QC Sample Results	13
QC Association Summary	16
Lab Chronicle	18
Certification Summary	20
Method Summary	21
Sample Summary	22
Chain of Custody	23
Receipt Checklists	25

### Client: GHD Inc. Project/Site: 11210714 Geiger Corrections

3

### Qualifiers

Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		5
Abbreviation	These commonly used abbreviations may or may not be present in this report.	6
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	
1C	Result is from the primary column on a dual-column method.	
2C	Result is from the confirmation column on a dual-column method.	0
CFL	Contains Free Liquid	0
CFU	Colony Forming Unit	0
CNF	Contains No Free Liquid	9
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	
LOQ	Limit of Quantitation (DoD/DOE)	13
MCL	EPA recommended "Maximum Contaminant Level"	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
MPN	Most Probable Number	
MQL	Method Quantitation Limit	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
NEG	Negative / Absent	
POS	Positive / Present	
PQL	Practical Quantitation Limit	
PRES	Presumptive	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	
TEF	Toxicity Equivalent Factor (Dioxin)	
TEQ	Toxicity Equivalent Quotient (Dioxin)	
TNTC	Too Numerous To Count	

### Laboratory: Eurofins Lancaster Laboratories Env, LLC

### Narrative

Job Narrative 410-13071-1

### Receipt

The samples were received on 9/4/2020 11:04 AM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.9°C and 3.8°C

### **Receipt Exceptions**

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

### GC/MS VOA

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

### GC VOA

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

### GC Semi VOA

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

### **Detection Summary**

		Detect	ion Sum	mary						
Client: GHD Inc. Project/Site: 11210714 Geiger Correcti	ions			-				Job I	D: 410-13071-1	2
Client Sample ID: GW-1121071	4-090320-	DT-MW-2				Li	ab	Sample ID:	410-13071-1	
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type	
C7-C12 (1C)	1100		250	19	ug/L	1	_	NWTPH-Gx	Total/NA	
C12-C24	630		110	48	ug/L	1		NWTPH-Dx	Total/NA	E
Client Sample ID: GW-1121071	4-090320-	DT-MP1R				Li	ab	Sample ID:	410-13071-2	ວ
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type	
C7-C12 (1C)	2200		250	19	ug/L	1	_	NWTPH-Gx	Total/NA	
_C12-C24	630		510	230	ug/L	5		NWTPH-Dx	Total/NA	
Client Sample ID: GW-1121071	4-090320-	DT-MW5D				La	ab	Sample ID:	410-13071-3	8
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Ргер Туре	g
C7-C12 (1C)	45	J	250	19	ug/L	1		NWTPH-Gx	Total/NA	
C12-C24	250		100	46	ug/L	1		NWTPH-Dx	Total/NA	
Client Sample ID: GW-1121071	4-090320-	DT-DUP				Li	ab	Sample ID:	410-13071-4	
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Ргер Туре	
C7-C12 (1C)	33	J	250	19	ug/L	1	_	NWTPH-Gx	Total/NA	
C12-C24	240		110	48	ug/L	1		NWTPH-Dx	Total/NA	
Client Sample ID: GW-1121071	4-090320-	DT-MW12				Li	ab	Sample ID:	410-13071-5	13
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type	
C7-C12 (1C)	24	J	250	19	ug/L	1		NWTPH-Gx	Total/NA	
Client Sample ID: GW-11210714	4-090320-	DT-MW7				Li	ab	Sample ID:	410-13071-6	
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type	
C7-C12 (1C)	89	J	250	19	ug/L	1	_	NWTPH-Gx	Total/NA	
C12-C24	570		110	49	ug/L	1		NWTPH-Dx	Total/NA	
Client Sample ID: Trip Blank						La	ab	Sample ID:	410-13071-7	

No Detections.

This Detection Summary does not include radiochemical test results.

	0714-090320-	DT-MW-2					Lab Sam	ple ID: 410-1	3071-1	
Date Collected: 09/03/20 08:30 Date Received: 09/04/20 11:04								Matrix	c: Water	
_ Method: 8260C - Volatile Organ	nic Compounds b	ov GC/MS								4
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
Benzene	ND		1.0	0.20	ug/L			09/16/20 03:26	1	
Ethylbenzene	ND		1.0	0.40	ug/L			09/16/20 03:26	1	6
Toluene	ND		1.0	0.20	ug/L			09/16/20 03:26	1	
Xylenes, Total	ND		6.0	1.4	ug/L			09/16/20 03:26	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	0
1,2-Dichloroethane-d4 (Surr)	103		80 - 120					09/16/20 03:26	1	0
4-Bromofluorobenzene (Surr)	97		80 - 120					09/16/20 03:26	1	0
Dibromofluoromethane (Surr)	104		80 - 120					09/16/20 03:26	1	3
Toluene-d8 (Surr)	93		80 - 120					09/16/20 03:26	1	
	A Maladia Bata									
Method: NWTPH-Gx - Northwe	st - volatile Petro	pieum Prod	ucts (GC)							
Method: NWTPH-Gx - Northwe	St - Volatile Petro Result	Qualifier	ucts (GC) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C)	St - Volatile Petro Result 1100	Qualifier	ucts (GC) 	<b>MDL</b> 19	Unit ug/L	<u> </u>	Prepared	Analyzed 09/10/20 15:54	Dil Fac	
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate	st - Volatile Petro Result 1100 %Recovery	Qualifier Qualifier	ucts (GC) 	<b>MDL</b> 19	Unit ug/L	<u> </u>	Prepared	Analyzed 09/10/20 15:54 Analyzed	Dil Fac 1 Dil Fac	
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C)	st - Volatile Petro Result 1100 	Qualifier	Limits 50 - 150	<b>MDL</b> 19	Unit ug/L	<u> </u>	Prepared Prepared	Analyzed 09/10/20 15:54 Analyzed 09/10/20 15:54	Dil Fac 1 Dil Fac 1 1 1 1 1	1 12 13
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwe	st - Volatile Petro Result 1100 %Recovery 85 st - Semi-Volatile	Qualifier Qualifier Qualifier Petroleum	Limits           50 - 150           Products (GC)	<b>MDL</b> 19	Unit ug/L	<u> </u>	Prepared Prepared	Analyzed 09/10/20 15:54 Analyzed 09/10/20 15:54	Dil Fac 1 Dil Fac 1	1 12 13
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwe Analyte	st - Volatile Petro Result 1100 %Recovery 85 st - Semi-Volatile Result	Qualifier Qualifier Petroleum Qualifier	Limits         50 - 150	MDL 19 MDL	Unit ug/L Unit	D	Prepared Prepared Prepared	Analyzed 09/10/20 15:54 Analyzed Analyzed	Dil Fac 1 Dil Fac 1 Dil Fac	1 12 13 14
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwe Analyte C12-C24	st - Volatile Petro Result 1100 %Recovery 85 st - Semi-Volatile Result 630	Qualifier Qualifier Petroleum Qualifier	Limits           50 - 150           Products (GC)           RL           110	MDL 19 MDL 48	Unit ug/L Unit ug/L	D	Prepared           Prepared           09/10/20 07:15	Analyzed 09/10/20 15:54 Analyzed 09/10/20 15:54 Analyzed 09/11/20 05:58	Dil Fac 1 Dil Fac 1 Dil Fac 1	1 12 13 14
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwe Analyte C12-C24 C24-C40	St - Volatile Perce           Result           1100           %Recovery           85           st - Semi-Volatile           Result           630           ND	Qualifier Qualifier Petroleum Qualifier	Limits           50 - 150           Products (GC)           RL           110           270	MDL 19 MDL 48 110	Unit ug/L Unit ug/L ug/L	D	Prepared Prepared Prepared 09/10/20 07:15 09/10/20 07:15	Analyzed 09/10/20 15:54 Analyzed 09/10/20 15:54 Analyzed 09/11/20 05:58 09/11/20 05:58	Dil Fac 1 Dil Fac 1 Dil Fac 1 1	11 12 13 14
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwe Analyte C12-C24 C24-C40 Surrogate	st - Volatile Petro Result 1100 %Recovery 85 st - Semi-Volatile Result 630 ND %Recovery	Qualifier Qualifier Qualifier Qualifier Qualifier Qualifier	Image: state stat	MDL 19 MDL 48 110	Unit ug/L ug/L ug/L	D	Prepared Prepared 09/10/20 07:15 09/10/20 07:15 Prepared	Analyzed 09/10/20 15:54 Analyzed 09/10/20 15:54 Analyzed 09/11/20 05:58 09/11/20 05:58	Dil Fac 1 Dil Fac 1 Dil Fac 1 1 Dil Fac	1 12 13 14
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwe Analyte C12-C24 C24-C40 Surrogate o- terphenyl (Surr)	st - Volatile Petro Result 1100 %Recovery 85 st - Semi-Volatile Result 630 ND %Recovery 96	Qualifier Qualifier Qualifier Qualifier Qualifier Qualifier	Image: style="text-align: center;">Image: style="text-align: style="text-align: style="text-align: center;">Image: style="text-align:	MDL 19 MDL 48 110	Unit ug/L Unit ug/L ug/L	D	Prepared           Prepared           09/10/20 07:15           09/10/20 07:15           Prepared           09/10/20 07:15	Analyzed 09/10/20 15:54 Analyzed 09/10/20 15:54 Analyzed 09/11/20 05:58 09/11/20 05:58 Analyzed 09/11/20 05:58	Dil Fac 1 Dil Fac 1 Dil Fac 1 1 Dil Fac 1	11 12 14 14
Method: NWTPH-Gx - Northwe Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwe Analyte C12-C24 C24-C40 Surrogate o- terphenyl (Surr) Client Sample ID: GW-1121	St - Volatile Petro           Result           1100           %Recovery           85           st - Semi-Volatile           Result           630           ND           %Recovery           96           0714-090320-1	Qualifier Qualifier Petroleum Qualifier Qualifier DT-MP1R	$ \begin{array}{r} \text{RL} \\ 250 \\ \hline \\ 250 \\ \hline \\ 250 \\ \hline \\ 100 \\ \hline \\ \hline \\ 50 - 150 \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ $	MDL 19 MDL 48 110	Unit ug/L ug/L ug/L	D	Prepared Prepared 09/10/20 07:15 09/10/20 07:15 Prepared 09/10/20 07:15 Lab Sam	Analyzed 09/10/20 15:54 Analyzed 09/10/20 15:54 Analyzed 09/11/20 05:58 Analyzed 09/11/20 05:58 Ple ID: 410-13	Dil Fac           1           Dil Fac           1           Dil Fac           1           Dil Fac           1           Dil Fac           1           3071-2	1 <sup>1</sup> 12 14 14

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			09/16/20 02:38	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/16/20 02:38	1
Toluene	ND		1.0	0.20	ug/L			09/16/20 02:38	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/16/20 02:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120			-		09/16/20 02:38	1
4-Bromofluorobenzene (Surr)	96		80 - 120					09/16/20 02:38	1
Dibromofluoromethane (Surr)	102		80 - 120					09/16/20 02:38	1
Toluene-d8 (Surr)									

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
C7-C12 (1C)	2200		250	19	ug/L			09/10/20 18:03	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
a,a,a-Trifluorotoluene (fid) (1C)		-	50 - 150			-		09/10/20 18:03	1	

	14-090320-	DT-MP1R					Lab Sam	ple ID: 410-1	3071-2
Date Collected: 09/03/20 08:45								Matrix	c: Water
Jate Received: 09/04/20 11:04									
Method: NWTPH-Dx - Northwest	- Semi-Volatile	Petroleum	Products (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
C12-C24	630		510	230	ug/L		09/10/20 07:15	09/20/20 22:15	į
C24-C40	ND		1300	510	ug/L		09/10/20 07:15	09/20/20 22:15	ł
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
o- terphenyl (Surr)	99		50 - 150				09/10/20 07:15	09/20/20 22:15	ł
lient Sample ID: GW-112107	/14-090320-	DT-MW5D					Lab Sam	ple ID: 410-1	3071-3
Date Collected: 09/03/20 09:45								Matrix	c: Wate
ate Received: 09/04/20 11:04									
Method: 8260C - Volatile Organic	Compounds I	ov GC/MS							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			09/16/20 00:17	
Ethylbenzene	ND		1.0	0.40	uq/L			09/16/20 00:17	
Toluene	ND		1.0	0.20	ua/L			09/16/20 00:17	
Xylenes, Total	ND		6.0	1.4	ug/L			09/16/20 00:17	
Surrogata	% Basayany	Qualifiar	Limito				Branarad	Analyzad	
1.2 Diablaraathana d4 (Surr)		Quanner					Prepareu	Analyzeu	
1,2-Dichloroethane-d4 (Surr)	102		00 - 120 00 - 100					09/10/20 00.17	
4-Bromotiuorobenzene (Surr)	93		80 - 120					09/16/20 00:17	
Dibromofluoromethane (Surr)	104		80 - 120					09/16/20 00:17	
Toluene-d8 (Surr)	91		80 - 120					09/16/20 00:17	1
Method: NWTPH-Gx - Northwest	- Volatile Petro	oleum Produ	icts (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	45	J	250	19	ug/L			09/10/20 16:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	85		50 - 150					09/10/20 16:20	1
Method: NWTPH-Dx - Northwest	- Semi-Volatile	Petroleum	Products (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C12-C24	250		100	46	ug/L		09/10/20 07:15	09/11/20 07:06	1
C24-C40	ND		260	100	ug/L		09/10/20 07:15	09/11/20 07:06	1
		0	l imite				Prepared	Analyzed	Dil Fa
Surrogate	%Recoverv	Qualifier	LIIIIII						
Surrogate o- terphenyl (Surr)	94	Quaimer	50 - 150				09/10/20 07:15	09/11/20 07:06	1
Surrogate o- terphenyl (Surr)	%Recovery 94		50 - 150				09/10/20 07:15	09/11/20 07:06	3071_4
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107	<u>%Recovery</u> 94 714-090320-	DT-DUP	50 - 150				09/10/20 07:15	09/11/20 07:06	3071-4
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50	<u>%Recovery</u> 94 714-090320-	DT-DUP	<u> </u>				09/10/20 07:15	09/11/20 07:06 ple ID: 410-1 Matrix	3071-4 c: Water
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50 Date Received: 09/04/20 11:04	<u>%Recovery</u> 94 714-090320-	DT-DUP	50 - 150				09/10/20 07:15	09/11/20 07:06 ple ID: 410-1 Matrix	3071-4 <: Wate
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic	Compounds I	DT-DUP	50 - 150				09/10/20 07:15	09/11/20 07:06 ple ID: 410-1 Matrix	3071-4 <: Wate
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte	Compounds I Result	DT-DUP Dy GC/MS Qualifier		MDL	Unit	D	09/10/20 07:15 Lab Sam	og/11/20 07:06 ple ID: 410-1 Matrix Analyzed	3071-4 c: Water Dil Fac
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Pate Collected: 09/03/20 09:50 Pate Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene	%Recovery           94           714-090320-           Compounds I           Result           ND	DT-DUP by GC/MS Qualifier	<u></u>	MDL 0.20	Unit ug/L	<u>D</u>	09/10/20 07:15 Lab Sam	09/11/20 07:06 ple ID: 410-1 Matrix <u>Analyzed</u> 09/16/20 00:40	3071-4 c: Water Dil Fac
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene	%Recovery           94           714-090320-           Compounds I           Result           ND           ND	DT-DUP by GC/MS Qualifier	<u></u>	MDL 0.20 0.40	Unit ug/L ug/L	<u>D</u>	09/10/20 07:15 Lab Sam Prepared	09/11/20 07:06 ple ID: 410-1 Matrix Analyzed 09/16/20 00:40 09/16/20 00:40	3071-4 c: Water Dil Fac
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene	%Recovery           94           714-090320-           Compounds I           Result           ND           ND           ND           ND	DT-DUP Dy GC/MS Qualifier		MDL 0.20 0.40 0.20	Unit ug/L ug/L ug/L	<u>D</u>	09/10/20 07:15 Lab Sam	09/11/20 07:06 ple ID: 410-1 Matrix Analyzed 09/16/20 00:40 09/16/20 00:40 09/16/20 00:40	3071-4 c: Water Dil Fac
Surrogate o- terphenyl (Surr) Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total	%Recovery           94           714-090320-           Compounds I           Result           ND           ND           ND           ND	DT-DUP Dy GC/MS Qualifier	Emmis           50 - 150           RL           1.0           1.0           6.0	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	09/10/20 07:15 Lab Sam Prepared	Og/11/20 07:06           ple ID: 410-1           Matrix	3071-4 x: Water Dil Fac

%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
103	80 - 120		09/16/20 00:40	1
95	80 - 120		09/16/20 00:40	1
	<u>%Recovery</u> Qualifier 103 95	%Recovery         Qualifier         Limits           103         80 - 120           95         80 - 120	%Recovery         Qualifier         Limits         Prepared           103         80 - 120         95         80 - 120	%Recovery         Qualifier         Limits         Prepared         Analyzed           103         80 - 120         09/16/20 00:40         09/16/20 00:40           95         80 - 120         09/16/20 00:40         09/16/20 00:40

		Clien	t Sample Re	esuite	)				
Client: GHD Inc. Project/Site: 11210714 Geiger Corre	ections							Job ID: 410-7	13071-1
Client Sample ID: GW-112107 Date Collected: 09/03/20 09:50	/14-090320-I	DT-DUP					Lab Sam	ple ID: 410-13 Matrix	3071-4 « Water
Mathadi 00000 Malatila Organia									
Method: 8260C - Volatile Organic	Compounds a	by GC/MS (C	vontinued)						
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	104		80 - 120					09/16/20 00:40	1
Toluene-d8 (Surr)	95		80 - 120					09/16/20 00:40	1
Method: NWTPH-Gx - Northwest	- Volatile Petro	leum Prod	ucts (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C7-C12 (1C)	33	J	250	19	ug/L			09/10/20 16:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)	85		50 - 150					09/10/20 16:46	1
 Method: NWTPH-Dx - Northwest	- Somi-Volatile	Potroloum	Products (GC)						
Analyte	- Serii-Volatile Result	Qualifier	RI	мы	Unit	п	Prenared	Analyzed	Dil Fac
C12-C24		Quanter	110	48			09/10/20 07:15	09/11/20 07:28	1
C24-C40	ND		270	110	ua/L		09/10/20 07:15	09/11/20 07:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o- terphenyl (Surr)	86		50 - 150				09/10/20 07:15	09/11/20 07:28	1
- Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04	714-090320-	DT-MW12					Lab Sam	ple ID: 410-13 Matrix	3071-5 : Water
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 - Method: 8260C - Volatile Organic	714-090320-i Compounds t	DT-MW12					Lab Sam	ple ID: 410-1 Matrix	3071-5 : Water
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte	714-090320- Compounds t Result	DT-MW12 )y GC/MS Qualifier	RL	MDL	Unit	D	Lab Sam	ple ID: 410-1 Matrix	3071-5 :: Water Dil Fac
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene	Compounds t Result	DT-MW12 by GC/MS Qualifier	RL		Unit ug/L	<u>D</u>	Lab Sam	ple ID: 410-1 Matrix <u>Analyzed</u> 09/16/20 01:04	3071-5 :: Water Dil Fac 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene	Compounds to Result ND ND	DT-MW12 by GC/MS Qualifier	<b>RL</b> 1.0 1.0	MDL 0.20 0.40	Unit ug/L ug/L	<u>D</u>	Lab Sam	Ple ID: 410-1 Matrix Matrix 09/16/20 01:04 09/16/20 01:04	<b>3071-5</b> <b>:: Water</b> <b>Dil Fac</b> 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene	714-090320- Compounds to Result ND ND ND	DT-MW12 by GC/MS Qualifier	<b>RL</b> 1.0 1.0 1.0 1.0	MDL 0.20 0.40 0.20	Unit ug/L ug/L ug/L	<u>D</u>	Lab Sam	Ple ID: 410-1 Matrix Matrix 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04	<b>3071-5</b> x: Water Dil Fac 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total	Compounds t Result ND ND ND ND	DT-MW12 by GC/MS Qualifier	RL 1.0 1.0 1.0 6.0	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam	Analyzed 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04	3071-5 c: Water Dil Fac 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate	714-090320- Compounds t Result ND ND ND ND ND	DT-MW12 by GC/MS Qualifier	RL 1.0 1.0 1.0 6.0 Limits	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04	3071-5 :: Water Dil Fac 1 1 1 Dil Fac
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr)	714-090320- Compounds t Result ND ND ND %Recovery 104	DT-MW12 by GC/MS Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04	3071-5 :: Water Dil Fac 1 1 1 Dil Fac 1 Dil Fac 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr)	714-090320- Compounds t Result ND ND ND %Recovery 104 92	DT-MW12 by GC/MS Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120	<b>MDL</b> 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04	Dil Fac           1           1           1           1           1           1           1           1           1           1           1           1           1           1           1           1           1           1           1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr)	714-090320- Compounds t Result ND ND ND ND ND ND 22 104	DT-MW12 by GC/MS Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u> </u>	Lab Sam Prepared Prepared	Analyzed 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04	3071-5 :: Water Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr)	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 92 104 94	DT-MW12 by GC/MS Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04	3071-5 :: Water Dil Fac 1 1 1 1 Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest	714-090320- Compounds t Result ND ND ND ND %Recovery 104 92 104 94 - Volatile Petro	DT-MW12 by GC/MS Qualifier Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam Prepared Prepared	Analyzed 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04 09/16/20 01:04	3071-5 :: Water Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 94 - Volatile Petro Result	DT-MW12 Dy GC/MS Qualifier Qualifier Pleum Produ Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120 <td>MDL 0.20 0.40 0.20 1.4</td> <td>Unit ug/L ug/L ug/L ug/L</td> <td> <u>D</u></td> <td>Lab Sam Prepared Prepared Prepared</td> <td>Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04</td> <td>3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1</td>	MDL 0.20 0.40 0.20 1.4	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam Prepared Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04	3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C)	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 92 104 94 - Volatile Petro Result 24	DT-MW12 by GC/MS Qualifier Qualifier J	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         250	MDL 0.20 0.40 1.4 	Unit ug/L ug/L ug/L Unit ug/L	<u>D</u>	Lab Sam Prepared Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04	3071-5 :: Water Dil Fac 1 1 1 1 <i>Dil Fac</i> 1 1 1 <i>Dil Fac</i> 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate	714-090320- Compounds t Result ND ND ND ND ND ND ND ND ND ND	DT-MW12 Dy GC/MS Qualifier Qualifier Sleum Produ Qualifier J Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         Limits	MDL 0.20 0.40 0.20 1.4 MDL 19	Unit ug/L ug/L ug/L Unit ug/L	D	Lab Sam Prepared Prepared Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           Analyzed           09/10/20 17:11           Analyzed	3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C)	714-090320- Compounds t Result ND ND ND ND %Recovery 104 92 104 92 104 94 - Volatile Petro Result 24 %Recovery 85	DT-MW12 Dy GC/MS Qualifier Qualifier J Qualifier J Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         S0 - 120         S0 - 120         S0 - 120         Limits	MDL 0.20 0.40 1.4 MDL 19	Unit ug/L ug/L ug/L Unit ug/L	D	Lab Sam Prepared Prepared Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/10/20 17:11           Analyzed           09/10/20 17:11	3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C)	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 92 104 94 - Volatile Petro Result 24 %Recovery 85 - Semi-Volatile	DT-MW12 by GC/MS Qualifier Qualifier bleum Produ Qualifier J Qualifier J Petroleum	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         30 - 120         30 - 120         Jcts (GC)         RL         250         Limits         50 - 150	MDL 0.20 0.40 0.20 1.4 MDL 19	Unit ug/L ug/L ug/L ug/L	<u>D</u>	Lab Sam Prepared Prepared Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/10/20 17:11           Analyzed           09/10/20 17:11	3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C)	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 94 - Volatile Petro Result 24 %Recovery 85 - Semi-Volatile Result	DT-MW12 Dy GC/MS Qualifier Qualifier Dleum Produ Qualifier J Qualifier Petroleum Qualifier	RL         1.0         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         S0 - 120         Jotts (GC)         RL         250         Limits         50 - 150         Products (GC)         RL	MDL 0.20 0.40 0.20 1.4 MDL 19	Unit ug/L ug/L ug/L ug/L Unit ug/L	D	Lab Sam Prepared Prepared Prepared Prepared Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/10/20 17:11           Analyzed           09/10/20 17:11           Analyzed	3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwest Analyte C12-C24	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 94 - Volatile Petro Result 24 %Recovery 85 - Semi-Volatile Result ND	DT-MW12 Dy GC/MS Qualifier Qualifier Deum Produ Qualifier J Qualifier Petroleum Qualifier	RL         1.0         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         S0 - 120         Jotts (GC)         RL         250         Limits         50 - 150         Products (GC)         RL         110	MDL 0.20 0.40 0.20 1.4 MDL 19 MDL 52	Unit ug/L ug/L ug/L ug/L Unit ug/L	D	Lab Sam Prepared Prepared Prepared Prepared O9/10/20 07:15	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/10/20 17:11           Analyzed           09/10/20 17:11           Analyzed           09/10/20 17:11           Analyzed           09/10/20 17:11	3071-5 :: Water Dil Fac 1 1 1 1 1 <i>Dil Fac</i> 1 <i>Dil Fac</i> <i>Dil Fac</i>
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwest Analyte C12-C24 C24-C40	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 92 104 94 - Volatile Petro Result 24 %Recovery 85 - Semi-Volatile Result ND ND ND	DT-MW12 by GC/MS Qualifier Qualifier bleum Produ Qualifier J Qualifier Petroleum Qualifier	RL         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         S0 - 120         Jicts (GC)         RL         250         Limits         50 - 150         Products (GC)         RL         110         290	MDL 0.20 0.40 0.20 1.4 MDL 19 MDL 52 110	Unit ug/L ug/L ug/L ug/L ug/L Unit ug/L ug/L	D	Lab Sam Prepared Prepared Prepared Prepared 09/10/20 07:15 09/10/20 07:15	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/10/20 17:11           Analyzed           09/10/20 17:11           Analyzed           09/11/20 07:51           09/11/20 07:51	3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwest Analyte C12-C24 C12-C24 C24-C40 Surrogate	714-090320- Compounds t Result ND ND ND %Recovery 104 92 104 94 • Volatile Petro Result 24 %Recovery 85 • Semi-Volatile Result ND ND ND ND ND ND ND ND ND ND	DT-MW12 Dy GC/MS Qualifier Qualifier Deum Produ Qualifier J Qualifier Petroleum Qualifier Qualifier	RL         1.0         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         S0 - 120         Jotts (GC)         RL         250         Limits         50 - 150         Products (GC)         RL         110         290         Limits	MDL 0.20 0.40 0.20 1.4 MDL 19 MDL 52 110	Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L	D	Lab Sam Prepared Prepared Prepared Prepared O9/10/20 07:15 09/10/20 07:15 Prepared	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 17:01           Analyzed           09/10/20 17:11           Analyzed           09/11/20 07:51           09/11/20 07:51           09/11/20 07:51           Analyzed	3071-5 :: Water Dil Fac 1 1 1 1 1 Dil Fac 1 Dil Fac 1 Dil Fac 1 Dil Fac 1 Dil Fac 1 Dil Fac
Client Sample ID: GW-112107 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04 Method: 8260C - Volatile Organic Analyte Benzene Ethylbenzene Toluene Xylenes, Total Surrogate 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) Dibromofluoromethane (Surr) Toluene-d8 (Surr) Method: NWTPH-Gx - Northwest Analyte C7-C12 (1C) Surrogate a,a,a-Trifluorotoluene (fid) (1C) Method: NWTPH-Dx - Northwest Analyte C12-C24 C24-C40 Surrogate o- terphenyl (Surr)	714-090320- Compounds I Result ND ND ND %Recovery 104 92 104 92 104 94 • Volatile Petro Result 24 %Recovery 85 • Semi-Volatile Result ND ND ND ND ND ND ND ND ND ND	DT-MW12 Dy GC/MS Qualifier Qualifier Deum Produ Qualifier J Qualifier Petroleum Qualifier Qualifier	RL         1.0         1.0         1.0         1.0         6.0         Limits         80 - 120         80 - 120         80 - 120         80 - 120         80 - 120         S0 - 120         Jotts (GC)         RL         250         Limits         50 - 150         Products (GC)         RL         110         290         Limits         50 - 150	MDL 0.20 0.40 0.20 1.4 MDL 19 MDL 52 110	Unit ug/L ug/L ug/L ug/L Unit ug/L ug/L ug/L	D	Prepared           Prepared           Prepared           Prepared           09/10/20 07:15           09/10/20 07:15           09/10/20 07:15           09/10/20 07:15	Analyzed           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/16/20 01:04           09/10/20 17:11           Analyzed           09/10/20 17:11           Analyzed           09/11/20 07:51           09/11/20 07:51           09/11/20 07:51           09/11/20 07:51	3071-5 :: Water Dil Fac 1 1 1 1 1 1 1 1 1 1 1 1 1

		Clien	t Sample R	esults	5					
Client: GHD Inc.			•					Job ID: 410-	13071-1	
Project/Site: 11210714 Geiger Co	orrections									
Client Sample ID: GW-112 <sup>4</sup> Date Collected: 09/03/20 12:10 Date Received: 09/04/20 11:04	10714-090320-	DT-MW7					Lab Sam	ple ID: 410-1 Matrix	3071-6 k: Water	
Date Received: 09/04/20 11:04										
Method: 8260C - Volatile Orga	nic Compounds I	oy GC/MS								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
Benzene	ND		1.0	0.20	ug/L			09/16/20 01:27	1	
Ethylbenzene	ND		1.0	0.40	ug/L			09/16/20 01:27	1	6
Toluene	ND		1.0	0.20	ug/L			09/16/20 01:27	1	
Xylenes, Total	ND		6.0	1.4	ug/L			09/16/20 01:27	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	8
1,2-Dichloroethane-d4 (Surr)	105		80 - 120					09/16/20 01:27	1	0
4-Bromofluorobenzene (Surr)	96		80 - 120					09/16/20 01:27	1	0
Dibromofluoromethane (Surr)	103		80 - 120					09/16/20 01:27	1	9
Toluene-d8 (Surr)	95		80 - 120					09/16/20 01:27	1	
Method: NWTPH-Gx - Northwe	est - Volatile Petro	oleum Produ	ucts (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
C7-C12 (1C)	89	J	250	19	ug/L			09/10/20 17:37	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
a,a,a-Trifluorotoluene (fid) (1C)	85		50 - 150					09/10/20 17:37	1	13
Method: NWTPH-Dx - Northwe	est - Semi-Volatile	Petroleum	Products (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
C12-C24	570		110	49	ug/L		09/10/20 07:15	09/11/20 08:14	1	
C24-C40	ND		270	110	ug/L		09/10/20 07:15	09/11/20 08:14	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
o- terphenyl (Surr)	95		50 - 150				09/10/20 07:15	09/11/20 08:14	1	
Client Sample ID: Trip Blai	nk						Lab Sam	ple ID: 410-1	3071-7	
Date Collected: 09/03/20 00:00								Matrix	k: Water	
Date Received: 09/04/20 11:04										
Method: 8260C - Volatile Orga	nic Compounds I	ov GC/MS								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		1.0	0.20	ug/L		·· · · ·	09/15/20 20:43	1	
Ethylbenzene	ND		1.0	0.40	ug/L			09/15/20 20:43	1	
Toluene	ND		1.0	0.20	ug/L			09/15/20 20:43	1	
Xylenes, Total	ND		6.0	1.4	ug/L			09/15/20 20:43		
					-					

Surrogate	%Recovery Qualifi	ier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103	80 - 120		09/15/20 20:43	1
4-Bromofluorobenzene (Surr)	90	80 - 120		09/15/20 20:43	1
Dibromofluoromethane (Surr)	107	80 - 120		09/15/20 20:43	1
Toluene-d8 (Surr)	93	80 - 120		09/15/20 20:43	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)										
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
C7-C12 (1C)	ND		250	19	ug/L			09/10/20 14:37	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
a,a,a-Trifluorotoluene (fid) (1C)	86		50 - 150			-		09/10/20 14:37	1	

### Method: 8260C - Volatile Organic Compounds by GC/MS Matrix: Water

				Percent Su	rrogate Recove
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-13071-1	GW-11210714-090320-DT-MW-2	103	97	104	93
410-13071-2	GW-11210714-090320-DT-MP1 R	106	96	102	92
410-13071-3	GW-11210714-090320-DT-MW 5D	102	93	104	91
410-13071-4	GW-11210714-090320-DT-DUP	103	95	104	95
410-13071-5	GW-11210714-090320-DT-MW 12	104	92	104	94
410-13071-6	GW-11210714-090320-DT-MW 7	105	96	103	95
410-13071-7	Trip Blank	103	90	107	93
LCS 410-44105/4	Lab Control Sample	102	95	104	93
LCSD 410-44105/5	Lab Control Sample Dup	106	96	102	92
MB 410-44105/7	Method Blank	99	90	103	92
Surrogate Legend					
DCA = 1,2-Dichloroethar	ne-d4 (Surr)				
BFB = 4-Bromofluorober	nzene (Surr)				
DBFM = Dibromofluorom	nethane (Surr)				
TOL = Toluene-d8 (Surr)					

### Matrix: Water

Percent Surrogate Recovery (Acceptance Limits) TFT-F1 Lab Sample ID **Client Sample ID** (50-150) 410-13071-1 GW-11210714-090320-DT-MW-2 85 410-13071-2 GW-11210714-090320-DT-MP1 87 R 410-13071-3 GW-11210714-090320-DT-MW 85 5D 410-13071-4 GW-11210714-090320-DT-DUP 85 410-13071-5 GW-11210714-090320-DT-MW 85 12 410-13071-6 GW-11210714-090320-DT-MW 85 7 410-13071-7 Trip Blank 86 LCS 410-42561/5 Lab Control Sample 78 LCSD 410-42561/6 Lab Control Sample Dup 79 MB 410-42561/4 Method Blank 85 Surrogate Legend

TFT-F = a,a,a-Trifluorotoluene (fid)

### Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) Matrix: Water

-			Percent Surrogate Recovery (Acceptance Limits)
		OTP	
Lab Sample ID	Client Sample ID	(50-150)	
410-13071-1	GW-11210714-090320-DT-MW-2	96	
410-13071-1 DU	GW-11210714-090320-DT-MW- 2	94	

Eurofins Lancaster Laboratories Env, LLC

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

### **Surrogate Summary**

Prep Type: Total/NA

### Client: GHD Inc. Project/Site: 11210714 Geiger Corrections

### Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued) Matrix: Water

			Percent Surrogate Recovery (Acceptance L
		ОТР	
Lab Sample ID	Client Sample ID	(50-150)	
410-13071-2	GW-11210714-090320-DT-MP1R	99	
410-13071-3	GW-11210714-090320-DT-MW	94	
	5D		
410-13071-4	GW-11210714-090320-DT-DUP	86	
410-13071-5	GW-11210714-090320-DT-MW	98	
	12		
410-13071-6	GW-11210714-090320-DT-MW	95	
	7		
LCS 410-42399/2-A	Lab Control Sample	96	
LCSD 410-42399/3-A	Lab Control Sample Dup	101	
MB /10-/2300/1-A	Method Blank	95	

OTP = o- terphenyl (Surr)

### **Client Sample ID: Method Blank** Prep Type: Total/NA

Lab Sample ID: MB 410-44105/7 Matrix: Water Analysis Batch: 44105

Analysis Baton. 44100									
	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.20	ug/L			09/15/20 19:01	1
Ethylbenzene	ND		1.0	0.40	ug/L			09/15/20 19:01	1
Toluene	ND		1.0	0.20	ug/L			09/15/20 19:01	1
Xylenes, Total	ND		6.0	1.4	ug/L			09/15/20 19:01	1

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		09/15/20 19:01	
4-Bromofluorobenzene (Surr)	90		80 - 120		09/15/20 19:01	
Dibromofluoromethane (Surr)	103		80 - 120		09/15/20 19:01	
Toluene-d8 (Surr)	92		80 - 120		09/15/20 19:01	

### Lab Sample ID: LCS 410-44105/4

### Matrix: Water

Analysis Batch: 44105	Analy	/sis	<b>Batch:</b>	44105
-----------------------	-------	------	---------------	-------

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	20.0	20.2		ug/L		101	80 - 120	
Ethylbenzene	20.0	18.0		ug/L		90	80 - 120	
Toluene	20.0	18.1		ug/L		91	80 - 120	
Xylenes, Total	60.0	54.8		ug/L		91	80 - 120	

	LCS	LCS		
Surrogate	%Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4 (Surr)	102		80 - 120	
4-Bromofluorobenzene (Surr)	95		80 - 120	
Dibromofluoromethane (Surr)	104		80 - 120	
Toluene-d8 (Surr)	93		80 - 120	

### Lab Sample ID: LCSD 410-44105/5 Matrix: Water

Analys	is Ba	atch:	44105

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene		21.7		ug/L		108	80 - 120	7	30
Ethylbenzene	20.0	19.4		ug/L		97	80 - 120	8	30
Toluene	20.0	19.5		ug/L		97	80 - 120	7	30
Xylenes, Total	60.0	59.1		ug/L		99	80 - 120	8	30

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		80 - 120
4-Bromofluorobenzene (Surr)	96		80 - 120
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	92		80 - 120

# Client Sample ID: Lab Control Sample Dup

**Client Sample ID: Lab Control Sample** 

### Prep Type: Total/NA

Prep Type: Total/NA

			<b>F</b>	110
Euronns	Lancaster	Laboratories	Env,	LLU

### Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 410-42561/4	4										Client S	ample ID:	Method	Blank
Matrix: Water												Prep 1	ype: To	tal/NA
Analysis Batch: 42561														
		ΜВ	МВ											
Analyte	Re	esult	Qualifier	RL		MDL	Unit		D	Pi	repared	Analyz	ed	Dil Fac
C7-C12 (1C)		ND		250		19	ug/L					09/10/20	13:19	1
		ΜВ	МВ											
Surrogate	%Reco	very	Qualifier	Limits						PI	repared	Analyz	ed	Dil Fac
a,a,a-Trifluorotoluene (fid) (1C)		85		50 - 150					_			09/10/20	13:19	1
Lab Sample ID: LCS 410-42561	/5								Cli	ent	Sample	ID: Lab Co	ontrol S	ample
Matrix: Water												Prep 1	ype: To	tal/NA
Analysis Batch: 42561														
				Spike	LCS	LCS						%Rec.		
Analyte				Added	Result	Qua	lifier	Unit		D	%Rec	Limits		
C7-C12 (1C)				1100	1020			ug/L		_	92	64 - 131		
	LCS	LCS												
Surrogate	%Recovery	Qual	lifier	Limits										
a,a,a-Trifluorotoluene (fid) (1C)	78			50 - 150										
Lab Sample ID: LCSD 410-4256	1/6							Cli	ient S	Sam	nle ID <sup>.</sup> I	ah Contro	l Samn	le Dun
Matrix: Water												Pron 1	Vne: To	tal/NA
Analysis Batch: 42561												i i op i	<b>J</b> pc. 10	
Analysis Batch. 42001				Spike	LCSD	LCS	D					%Rec.		RPD
Analyte				Added	Result	Qua	lifier	Unit		D	%Rec	Limits	RPD	Limit
C7-C12 (1C)				1100	1030			ug/L		_	93	64 - 131	1	30
	LCSD	LCS	D											
Surrogate	%Recovery	Qual	lifier	Limits										
a,a,a-Trifluorotoluene (fid) (1C)	79			50 - 150										

### Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 410-42399/1-/	A										Client Sa	mple ID: Meth	od Blank
Analysis Batch: 42771												Pren Bat	h 42399
		мв	MB									Trop But	
Analyte	Re	sult	Qualifier	R	L	MDL	Unit		D	Р	repared	Analyzed	Dil Fac
C12-C24		ND			0	45	ug/L			09/1	0/20 07:15	09/11/20 04:50	1
C24-C40		ND		25	0	100	ug/L			09/1	0/20 07:15	09/11/20 04:50	1
		ΜВ	МВ										
Surrogate	%Reco	very	Qualifier	Limits						P	repared	Analyzed	Dil Fac
o- terphenyl (Surr)		95		50 - 150	-					09/1	0/20 07:15	09/11/20 04:50	1
- Lab Sample ID: LCS 410-42399/2-	- <b>A</b>								c	lient	Sample	D: Lab Contro	l Sample
Matrix: Water												Prep Type:	Total/NA
Analysis Batch: 42771												Prep Bate	:h: 42399
				Spike	LCS	LCS	i					%Rec.	
Analyte				Added	Result	Qua	lifier	Unit		D	%Rec	Limits	
C12-C24				600	360			ug/L			60	14 - 115	
	LCS	LCS											
Surrogate	%Recovery	Qua	lifier	Limits									
o- terphenyl (Surr)	96			50 - 150									

)-13071-1

5

ug/L

Unit

ug/L

ug/L

D

RPD

Prep Batch: 42399

RPD

5

NC

3

### Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued) Lab Sample ID: LCSD 410-42399/3-A **Client Sample ID: Lab Control Sample Dup** Matrix: Water Prep Type: Total/NA Analysis Batch: 42771 Prep Batch: 42399 Spike LCSD LCSD %Rec. Result Qualifier Analyte Added Unit D %Rec Limits

C12-C24			600	350	
	LCSD	LCSD			
Surrogate	%Recovery	Qualifier	Limits		
o- terphenyl (Surr)	101		50 - 150		
Lab Sample ID: 410-13071-1	DU				
Matrix: Water					
Analysis Batch: 42771					
	Sample	Sample		DU	DU
Analyte	Result	Qualifier		Result	Qualifier
C12-C24	630			596	
C24-C40	ND			ND	
	DU	DU			
Surrogate	%Recovery	Qualifier	Limits		
o- terphenyl (Surr)	94		50 - 150		

Client Sample ID: GW-11210714-090320-DT-MW-2 Prep Type: Total/NA

14 - 115

58

8

5

RPD

Limit

RPD

Limit

20

20

### **QC Association Summary**

### Client: GHD Inc. Project/Site: 11210714 Geiger Corrections

### GC/MS VOA

### Analysis Batch: 44105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-13071-1	GW-11210714-090320-DT-MW-2	Total/NA	Water	8260C	
410-13071-2	GW-11210714-090320-DT-MP1R	Total/NA	Water	8260C	
410-13071-3	GW-11210714-090320-DT-MW5D	Total/NA	Water	8260C	
410-13071-4	GW-11210714-090320-DT-DUP	Total/NA	Water	8260C	
410-13071-5	GW-11210714-090320-DT-MW12	Total/NA	Water	8260C	
410-13071-6	GW-11210714-090320-DT-MW7	Total/NA	Water	8260C	
410-13071-7	Trip Blank	Total/NA	Water	8260C	
MB 410-44105/7	Method Blank	Total/NA	Water	8260C	
LCS 410-44105/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-44105/5	Lab Control Sample Dup	Total/NA	Water	8260C	

### **GC VOA**

### Analysis Batch: 42561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-13071-1	GW-11210714-090320-DT-MW-2	Total/NA	Water	NWTPH-Gx	
410-13071-2	GW-11210714-090320-DT-MP1R	Total/NA	Water	NWTPH-Gx	
410-13071-3	GW-11210714-090320-DT-MW5D	Total/NA	Water	NWTPH-Gx	
410-13071-4	GW-11210714-090320-DT-DUP	Total/NA	Water	NWTPH-Gx	
410-13071-5	GW-11210714-090320-DT-MW12	Total/NA	Water	NWTPH-Gx	
410-13071-6	GW-11210714-090320-DT-MW7	Total/NA	Water	NWTPH-Gx	
410-13071-7	Trip Blank	Total/NA	Water	NWTPH-Gx	
MB 410-42561/4	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 410-42561/5	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 410-42561/6	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

### GC Semi VOA

### Prep Batch: 42399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-13071-1	GW-11210714-090320-DT-MW-2	Total/NA	Water	3510C	
410-13071-2	GW-11210714-090320-DT-MP1R	Total/NA	Water	3510C	
410-13071-3	GW-11210714-090320-DT-MW5D	Total/NA	Water	3510C	
410-13071-4	GW-11210714-090320-DT-DUP	Total/NA	Water	3510C	
410-13071-5	GW-11210714-090320-DT-MW12	Total/NA	Water	3510C	
410-13071-6	GW-11210714-090320-DT-MW7	Total/NA	Water	3510C	
MB 410-42399/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-42399/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-42399/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
410-13071-1 DU	GW-11210714-090320-DT-MW-2	Total/NA	Water	3510C	

### Analysis Batch: 42771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-13071-1	GW-11210714-090320-DT-MW-2	Total/NA	Water	NWTPH-Dx	42399
410-13071-3	GW-11210714-090320-DT-MW5D	Total/NA	Water	NWTPH-Dx	42399
410-13071-4	GW-11210714-090320-DT-DUP	Total/NA	Water	NWTPH-Dx	42399
410-13071-5	GW-11210714-090320-DT-MW12	Total/NA	Water	NWTPH-Dx	42399
410-13071-6	GW-11210714-090320-DT-MW7	Total/NA	Water	NWTPH-Dx	42399
MB 410-42399/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	42399
LCS 410-42399/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	42399
LCSD 410-42399/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	42399
410-13071-1 DU	GW-11210714-090320-DT-MW-2	Total/NA	Water	NWTPH-Dx	42399

### **QC** Association Summary

Client: GHD Inc.
Project/Site: 11210714 Geiger Corrections

### GC Semi VOA

### Analysis Batch: 45781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-13071-2	GW-11210714-090320-DT-MP1R	Total/NA	Water	NWTPH-Dx	42399

### Client Sample ID: GW-11210714-090320-DT-MW-2 Date Collected: 09/03/20 08:30 Date Received: 09/04/20 11:04

-	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	44105	09/16/20 03:26	R64Z	ELLE
Total/NA	Analysis	NWTPH-Gx		1	42561	09/10/20 15:54	JJT8	ELLE
Total/NA	Prep	3510C			42399	09/10/20 07:15	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	42771	09/11/20 05:58	KP5X	ELLE

### Client Sample ID: GW-11210714-090320-DT-MP1R Date Collected: 09/03/20 08:45 Date Received: 09/04/20 11:04

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	44105	09/16/20 02:38	R64Z	ELLE
Total/NA	Analysis	NWTPH-Gx		1	42561	09/10/20 18:03	JJT8	ELLE
Total/NA	Prep	3510C			42399	09/10/20 07:15	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		5	45781	09/20/20 22:15	KP5X	ELLE

### Client Sample ID: GW-11210714-090320-DT-MW5D Date Collected: 09/03/20 09:45 Date Received: 09/04/20 11:04

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	44105	09/16/20 00:17	R64Z	ELLE
Total/NA	Analysis	NWTPH-Gx		1	42561	09/10/20 16:20	JJT8	ELLE
Total/NA	Prep	3510C			42399	09/10/20 07:15	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	42771	09/11/20 07:06	KP5X	ELLE

# Client Sample ID: GW-11210714-090320-DT-DUP

Date Collected: 09/03/20 09:50 Date Received: 09/04/20 11:04

Γ	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	44105	09/16/20 00:40	R64Z	ELLE
Total/NA	Analysis	NWTPH-Gx		1	42561	09/10/20 16:46	JJT8	ELLE
Total/NA	Prep	3510C			42399	09/10/20 07:15	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	42771	09/11/20 07:28	KP5X	ELLE

### Client Sample ID: GW-11210714-090320-DT-MW12 Date Collected: 09/03/20 11:00 Date Received: 09/04/20 11:04

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	44105	09/16/20 01:04	R64Z	ELLE
Total/NA	Analysis	NWTPH-Gx		1	42561	09/10/20 17:11	JJT8	ELLE
Total/NA	Prep	3510C			42399	09/10/20 07:15	R9CT	ELLE
Total/NA	Analysis	NWTPH-Dx		1	42771	09/11/20 07:51	KP5X	ELLE

# Lab Sample ID: 410-13071-1

Matrix: Water

Matrix: Water

### Lab Sample ID: 410-13071-3

Lab Sample ID: 410-13071-4

Lab Sample ID: 410-13071-5

Lab Sample ID: 410-13071-2

Matrix: Water

Matrix: Water

Matrix: Water

Matrix: Water

Lab Sample ID: 410-13071-6

### Client Sample ID: GW-11210714-090320-DT-MW7 Date Collected: 09/03/20 12:10 Date Received: 09/04/20 11:04

	Batch	Batch		Dilution	Batch	Prepared			
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260C		1	44105	09/16/20 01:27	R64Z	ELLE	
Total/NA	Analysis	NWTPH-Gx		1	42561	09/10/20 17:37	JJT8	ELLE	
Total/NA	Prep	3510C			42399	09/10/20 07:15	R9CT	ELLE	
Total/NA	Analysis	NWTPH-Dx		1	42771	09/11/20 08:14	KP5X	ELLE	
Client Samp	ole ID: Trip B	ank					La	ab Sample ID: 41	0-13071-7
Date Collected	1: 09/03/20 00:0	0						M	atrix: Wate
Date Received	I: 09/04/20 11:04	4							

-	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	44105	09/15/20 20:43	R64Z	ELLE
Total/NA	Analysis	NWTPH-Gx		1	42561	09/10/20 14:37	JJT8	ELLE

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

### Accreditation/Certification Summary

11

### Laboratory: Eurofins Lancaster Laboratories Env, LLC Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. Authority Identification Number Expiration Date Program Washington State C457 04-11-21 5 The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification. Analysis Method Prep Method Matrix Analyte 8260C Water Benzene 8260C Water Ethylbenzene 8260C Water Toluene 8260C Water Xylenes, Total NWTPH-Dx 3510C Water C12-C24 C7-C12 (1C) NWTPH-Gx Water

### Client: GHD Inc. Project/Site: 11210714 Geiger Corrections

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	ELLE
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

### Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

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

### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

### Sample Summary

### Client: GHD Inc. Project/Site: 11210714 Geiger Corrections

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset I
410-13071-1	GW-11210714-090320-DT-MW-2	Water	09/03/20 08:30	09/04/20 11:04	
410-13071-2	GW-11210714-090320-DT-MP1R	Water	09/03/20 08:45	09/04/20 11:04	
410-13071-3	GW-11210714-090320-DT-MW5D	Water	09/03/20 09:45	09/04/20 11:04	
410-13071-4	GW-11210714-090320-DT-DUP	Water	09/03/20 09:50	09/04/20 11:04	
410-13071-5	GW-11210714-090320-DT-MW12	Water	09/03/20 11:00	09/04/20 11:04	
410-13071-6	GW-11210714-090320-DT-MW7	Water	09/03/20 12:10	09/04/20 11:04	
410-13071-7	Trip Blank	Water	09/03/20 00:00	09/04/20 11:04	

Ana	lysi	s Re	eq	Ue	Slar	t/Ch		n (	<b>of</b>	C	US	to	dy	1		1.1	6.		c a	
3071 Chain of Custody pries	Acct. #		0	aroup	#		S	ample	#	Iona	1030 0	nny					С	OC	# 3	97730
Client Information	1	-	-		-	Matrix	-		-	-	A	nalys	sis R	eque	ested		-	For Lab	Use Only	
ient: /2HD	Acct. #:							1				Prese	rvati	on Co	des	_		FSC:		
roject Name/#: 1210714 Geiger Correction roject Manager: Mushghan Mansoori ampler: Dave Trudeav	PWSID #: 15 P.O. #: Quote #:				Sediment	le 🗌 Ground E		ntainers	bx t	7260 7	H							SCR#: Pre H=HC N=HN S=H <sub>2</sub> \$	servation 1 T= 0 <sub>3</sub> B= 50 <sub>4</sub> 0= Remar	Codes Thiosulfate NaOH Other KS
ate where samples were collected: For Compliance:	No 🗆			ite		Potab		f Col	-H-	20	DX									
Sample Identification	Colle	ected	Grab	compos	Soil 🗆	Vater	other:	otal # o	NWTP	BTEX	DRO,									
W-11210714-090320-15T-MW-2	2 9/3	8:30	X	.0	0)	GW	0	P	X	X	X		-		-	+				
W-11210714-090320-DT-MAIR		8:45 9:45	X					88	XX	XX	XX									
W-11210714-090320-DI-DUP		9:50	X		-			8	X	$\frac{X}{X}$	X			-	+	+	-			
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ate results are needed:			Relind	quished	by					Date	_	Time	F	Receive	d by	-	/		Date	Time
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NYSDEC Category A or B MA MCP	CT	RCP	Site-Specific QC (MS/MSD/Dup)? Yes No							1		Temp	eratur	e upon	receipt	0.91	38			

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.



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Client Informatio	n Acct. #:		F	Matrix	-				Analysis Preserva	Requested tion Codes		For Lab U	se Only		
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Date results are needed:	. com	Relinquishe	d by d by			/		Date	Time	Received by			Date	Time	
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Type III (Reduced non-CLP) TX TRRI NYSDEC Category A or B MA MCP	TX TRRP-13					EDD Required? Yes No If yes, format:					Relinquished by Commercial Carrier:				

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

7044 0615

### Login Sample Receipt Checklist

Client: GHD Inc.

### Login Number: 13071 List Number: 1

### Creator: Colon Martinez, Jessenia C

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ( =6C, not frozen).</td <td>True</td> <td></td>	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ( =6C, not frozen).</td <td>N/A</td> <td></td>	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

Job Number: 410-13071-1

List Source: Eurofins Lancaster Laboratories Env

# Appendix C Waste Manifests
NON-HAZARDOUS 1. Generator ID Number / 2. Page 1 of 3. E	Emergency Respons	se Phone	4. Waste Tr	acking Nun	nber	
WASTE MANIFEST Nor PREQUIRED 1 2 2 8	0-337-745	5	Paa-	GHD	-080	820-
Generator's Name and Mailing Address ' Start 1 / U A Gen	hillip 66 Geig	ss (il different t er Deliv	han mailing addre	iss)		n lic
3900 Kilroy Airport Way S	Spotted RD	and W Ele 99224	ctric Ave		- · ·	100
enerator's Phone:				- 9		1
Transporter 1 Company Name			U.S. EPAID		004	7217
Transporter 2 Company Name	1		U.S. EPA ID	Number		
Chemical Weste Management			ORD	0 8	945	2353
CHEMICAL WASTE MANAGEMENT, INC			U.S. EPAID	NUMDer		1
ARLINGTON OR 97812			1.0		1-5-1	
cility's Phone: 541 454-2643	40.0	lainam	ORD	8 0 0	945	2353
9. Waste Shipping Name and Description	No.	Тура	Uuantity	12. Unit Wt./Vol.		1
1. Non-RCRA, non-DOT (IDW Water OR344302)						6.1
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Special Handling Instructions and Additional Information 1) Profile# OR344302 AOC 6547				-		12
Special Handling Instructions and Additional Information 1) Profile# OR344302 AOC 6547	n L		ne		2170	223
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. Gei	nerator's Name and Mailing Address phillips 66 pr 3900 Kilroy Airport Way N Long Beach, CA 90805 Sp rator's Phone: (582) 299-1551 Atta: Rich Solomon	Nenjos Giveletani (Leitrender aning address) IW S Spotted Rd & Will D Alton Dr pokana, WA 99260					
TO:	poporter 1 Company Name H Environmental, Inc.		17 <u>-</u> 1 - 1 - 1				
Tra C	nsporter 2 Company Name hemical Waste Management of the Northwest	h D		U.S. EPA ID	Number 194523	53	
. Des acilit	signated Facility Name and Site Address Chemical Waste Management of the Northwest 17529 Cedor Springe Lane Arlington, OR 97812 ys Phone: (141) 454-2643			U.S. EPA ID	Number	53	
	9. Waste Shipping Name and Description	10. Co No.	ontainers Type	11. Total Quantity	12. Unit Wt./Vol.		
	<sup>1.</sup> Material Not Regulated by DOT (non-regulated IDW soil)	Og	DM	Fa	p	X004	
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## about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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