



December 09, 2020

Mr. Scot Fitzgerald
CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington 99352

Re: CHPRC SAF W20-007
Work Order: 528812
SDG: GEL528812

Dear Mr. Fitzgerald:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on August 06, 2020. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4505.

Sincerely,

Heather Shaffer
Project Manager

Purchase Order: 300071 - 7H
Chain of Custody: W20-007-163
Enclosures

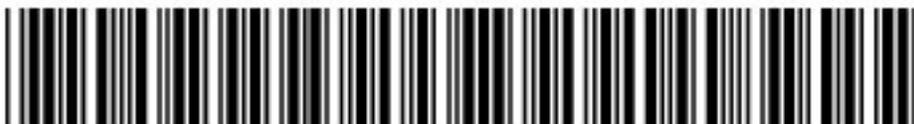


Table of Contents

Recheck, Recount, or Reanalysis Order.....	3
Case Narrative.....	5
Chain of Custody and Supporting Documentation.....	9
Data Review Qualifier Definitions.....	12
Laboratory Certifications.....	14
General Chem Analysis.....	16
Case Narrative.....	17
Sample Data Summary.....	21
Quality Control Summary.....	26

Recheck, Recount, or Reanalysis Order

RECHECK, RECOUNT, OR REANALYSIS ORDER

11/24/2020

Order Number: 201124GEL-R10346

GEL Laboratories, LLC
 2040 Savage Road
 Charleston, SC 29407

Sample Delivery Group: GEL517663

Method Name: 9060_TOC

Sample#: B3WKC7 Sample Date: 8/5/2020 7:42:00 AM SAF #: W20-007

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
517663009	11/24/2020 2:48:47 PM	Total organic carbon	RECHECK	15 Days / 15 Days
Special Instructions:	Please recheck for sample swap - results do not agree with trend or with the other two samples (quad sample event) B3WKY0 and B3WKX8 from the same well. SLF 11/24/2020			

Sample#: B3WKX6 Sample Date: 8/5/2020 7:42:00 AM SAF #: W20-007

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
517663011	11/24/2020 2:48:47 PM	Total organic carbon	RECHECK	15 Days / 15 Days
Special Instructions:	Please recheck for sample swap - results do not agree with trend or with the other two samples (quad sample event) B3WKY0 and B3WKX8 from the same well. SLF 11/24/2020			

Deliver Report Results to: CHPRC
 P.O. Box 1600
 Richland, WA 99352
 C/O Mr.Scot Fitzgerald

Case Narrative

**General Narrative
for
CH2MHill Plateau Remediation Company (74393)
CHPRC SAF W20-007
SDG: GEL528812**

December 09, 2020

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt

The sample(s) arrived at GEL Laboratories, LLC, Charleston, South Carolina on August 06, 2020, for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. This SDG was a client request for a Re-check. The re-analysis did not confirm the original result.

Items of Note All efforts were made by the lab to meet any short hold times. Samples that were analyzed outside of the initial hold time but still within 2X hold time will be noted in the lab case narrative.

Sample Identification

The laboratory received the following samples:

<u>Laboratory Identification</u>	<u>Sample Description</u>
528812001	B3WKY0
528812002	B3WKC7
528812003	B3WKC8
528812004	B3WKC6

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: General Narrative, Chain of Custody and Supporting Documentation, and data from the following fractions: General Chemistry.

We certify that this package is in compliance with the Analytical Laboratory Services for CH2M Hill Plateau Remediation Company Statement of Work, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this data package deliverable has been authorized by the Laboratory Analytical Manager (or designee) and the laboratory's client services representative as verified by their signatures on this report.



Heather Shaffer
Project Manager

General Chemistry
Technical Case Narrative
CH2M Hill Plateau Remediation Company
SDG #: GEL528812
Work Order #: 528812

Carbon, Total Organic

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information**Holding Times**

Samples (See Below) were received by the laboratory outside of the method specified holding time. The data is qualified.

Sample	Analyte	Value
1204705522 (B3WKY0DUP)		Logged 30-NOV-20, out of holding 02-SEP-20
1204705525 (B3WKY0PS)		Logged 30-NOV-20, out of holding 02-SEP-20
528812001 (B3WKY0)		Logged 30-NOV-20, out of holding 02-SEP-20
528812002 (B3WKC7)		Logged 30-NOV-20, out of holding 02-SEP-20
528812003 (B3WKX8)		Logged 30-NOV-20, out of holding 02-SEP-20
528812004 (B3WKX6)		Logged 30-NOV-20, out of holding 02-SEP-20

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Chain of Custody and Supporting Documentation

CH2M Hill Plateau Remediation Company Juan Aguilar CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST Relog 288812 48.1130125-17663		C.O.C.# W20-007-163 Page 1 of 2
Collector: W20-007	Contact/Requester: Karen Waters-Husted Hanford Site	Telephone No.: 509-376-4650	Purchase Order/Charge Code: 300071	
Project Title: RCRA, JULY 2020	Sampling Origin: HNF-N-506 -11S/35	Logbook No.: HNF-N-506 -11S/35	Ice Chest No.: GWS-082	
Shipped To (Lab): GEL Laboratories, LLC	Method of Shipment: Commercial Carrier	Priority: 30 Days	Bill of Lading/Air Bill No.: 7711 0400 2125	
Protocol: RCRA	SPECIAL INSTRUCTIONS Low Volume Wells: Do not use for QC	OFFSITE PROPERTY NO.: N/A		
POSSIBLE SAMPLE HAZARDS/REMARK ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1				

Sample No.	Filter	* Time	Date	No/Type Container	Sample Analysis	Holding Time	Preservative
B3WKY0	N	W	AUG 05 2020 0742	1x250-mL ags*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3WKY0	N	W		1x60-mL ag	9060_TOX: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3WKC7	N	W		1x250-mL ags*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3WKC7	N	W		1x60-mL ag	9060_TOX: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3WXX8	N	W		1x250-mL ags*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3WXX8	N	W		1x60-mL ag	9060_TOX: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3WXX6	N	W	AUG 05 2020 0742	1x250-mL ags*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C

Relinquished By	Received By
Print First and Last Name: Juan Aguilar Signature: [Signature] Date/Time: AUG 05 2020 1005 CHPRC	Print First and Last Name: Roger Friesz Jr. Signature: [Signature] Date/Time: AUG 05 2020 1005 CHPRC
Signature: [Signature] Date/Time: AUG 05 2020 1400 CHPRC	Signature: [Signature] Date/Time: [Blank] GEL Laboratories

Matrix * S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air	DS = Drum Solids DL = Drum Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
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FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:
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CH2M Hill Plateau Remediation Company		C.O.C. # W20-007-163 Page 2 of 2	
Juan Aguilar CHPRC		528812 48 11 2020 57663	
Collector:	Karen Waters-Husted	Telephone No.:	509-376-4650
SAF No.:	W20-007	Purchase Order/Charge Code:	300071
Project Title:	RCRA, JULY 2020	Ice Chest No.:	625-082
Shipped To (Lab):	GEL Laboratories, LLC	Bill of Lading/Air Bill No.:	711 8400 2125
Protocol:	RCRA	Offsite Property No.:	N/A
POSSIBLE SAMPLE HAZARDS/REMARK ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1		SPECIAL INSTRUCTIONS Low Volume Wells. Do not use for QC.	
Sample No.	Filter	* Time	No/Type Container
B3WKX6	N	W AUG 05 2020 0742	1x60-mL aG
Sample Analysis		Holding Time	Preservative
9060_TOC: COMMON		28 Days	HCl or H2SO4 to pH <2 / COOL <=6C

Relinquished By Print First and Last Name: Juan Aguilar, CHPRC Signature: [Signature] Date/Time: AUG 05 2020 1005 Print First and Last Name: Roger Friesz Jr., CHPRC Signature: [Signature] Date/Time: AUG 05 2020 1400 Print First and Last Name: Thyasia Tatum, GEL Laboratories Signature: [Signature] Date/Time: AUG 05 2020 1100		Received By Signature: [Signature] Date/Time: AUG 05 2020 1005 Signature: [Signature] Date/Time: 8/10/20 1100	
Disposal Method (e.g., Return to customer, per lab procedure, used in process): Disposed By:		Date/Time:	
FINAL SAMPLE DISPOSITION Printed On: 7/7/2020		Matrix * S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air DS = Drum Solids, DL = Drum Liquids, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, X = Other	

Data Review Qualifier Definitions

Project Specific Qualifier Definitions for GEL Client Code: CPRC

Qualifier	Qualifier Definition	Department	Fraction
U	Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.		
J	The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate). Value is estimated	Organics	
P	Aroclor target analyte with greater than 25% difference between column analyses.	Organics	
C	Analyte has been confirmed by GC/MS analysis	Organics	Pesticide
B	The analyte was detected in both the associated QC blank and in the sample.	Organics	
E	Concentration exceeds the calibration range of the instrument	Organics	
A	The TIC is a suspected aldol-condensation product	Organics	Semi-Volatile
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier		
N	Spike Sample recovery is outside control limits.		
*	Duplicate analysis not within control limits	Inorganics	
>	Result greater than quantifiable range or greater than upper limit of the analysis range	General Chemistry	
Z	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier		
B	The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).	Inorganics	Metals
D	Results are reported from a diluted aliquot of sample.		
E	Reported value is estimated due to interferences. See comment in narrative.		
M	Duplicate precision not met.	Inorganics	Metals
o	Analyte failed to recover within LCS limits (Organics only)	Organics	
S	Reported value determined by the Method of Standard Additions (MSA)	Inorganics	
T	Spike and/or spike duplicate sample recovery is outside control limits.	Organics	
W	Post-digestion spike recovery for GFAA out of control limit. Sample absorbency < 50% of spike absorbency.	Inorganics	
B	The analyte was detected in the associated method blank \geq MDC or $>$ 5% sample activity.	Radiological	
Y	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier		
+	Correlation coefficient for Method of Standard Additions (MSA) is < 0.995	Inorganics	
B	The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).	General Chemistry	
C	Target analyte was detected in the sample and the associated blank. The associated blank concentration is \geq EQL or is $>$ 5% of the measured concentration and/or decision level for associated samples.	Inorganics	Metals
C	Target analyte was detected in the sample and the associated blank. The associated blank concentration is \geq EQL or is $>$ 5% of the measured concentration and/or decision level for associated samples.	General Chemistry	
<	Sample is below the EPA guidance level for Reactive Releasable Cyanide and/or Reactive Releasable Sulfide	General Chemistry	
UX	Gamma Spectroscopy--Uncertain identification	Radiological	
o	Analyte failed to recover within LCS limits	Radiological	Rad

Laboratory Certifications

List of current GEL Certifications as of 09 December 2020

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122021-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-20-17
Utah NELAP	SC000122020-33
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

General Chem Analysis

Case Narrative

**General Chemistry
Technical Case Narrative
CH2MHill Plateau Remediation Company
SDG #: GEL528812
Work Order #: 528812**

Product: Carbon, Total Organic

Analytical Method: SW846 9060A

Analytical Procedure: GL-GC-E-093 REV# 16

Analytical Batch: 2068017

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
528812001	B3WKY0
528812002	B3WKC7
528812003	B3WKX8
528812004	B3WKX6
1204705520	Method Blank (MB)
1204705521	Laboratory Control Sample (LCS)
1204705522	528812001(B3WKY0) Sample Duplicate (DUP)
1204705525	528812001(B3WKY0) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Holding Times

Samples (See Below) were received by the laboratory outside of the method specified holding time. The data is qualified.

Sample	Analyte	Value
1204705522 (B3WKY0DUP)		Logged 30-NOV-20, out of holding 02-SEP-20
1204705525 (B3WKY0PS)		Logged 30-NOV-20, out of holding 02-SEP-20
528812001 (B3WKY0)		Logged 30-NOV-20, out of holding 02-SEP-20
528812002 (B3WKC7)		Logged 30-NOV-20, out of holding 02-SEP-20
528812003 (B3WKX8)		Logged 30-NOV-20, out of holding 02-SEP-20
528812004 (B3WKX6)		Logged 30-NOV-20, out of holding 02-SEP-20

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

**Qualifier Definition Report
for**

CPRC002 CH2MHill Plateau Remediation Company (74393)

Client SDG: GEL528812 GEL Work Order: 528812

The Qualifiers in this report are defined as follows:

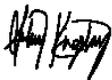
U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: Aubrey Kingsbury

Date: 09 DEC 2020

Title: Data Validator

Sample Data Summary

Certificate of Analysis

Report Date: December 9, 2020

Company : CH2MHill Plateau Remediation Company
 Address : MSIN R3-50 CHPRC
 PO Box 1600
 Richland, Washington 99352
 Contact: Mr. Scot Fitzgerald
 Project: CHPRC SAF W20-007

Client Sample ID: B3WKY0 Project: CPRC0W20007A
 Sample ID: 528812001 Client ID: CPRC002
 Matrix: WATER
 Collect Date: 05-AUG-20 07:42
 Receive Date: 06-AUG-20
 Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
9060_TOC: COMMON "As Received"												
Total Organic Carbon #1	UX	330	330	1000	ug/L		1	TSM	12/04/20	2236	2068017	1
Total Organic Carbon #2	UX	330	330	1000	ug/L		1					
Total Organic Carbon #3	UX	330	330	1000	ug/L		1					
Total Organic Carbon #4	UX	330	330	1000	ug/L		1					
Total Organic Carbon Average	UX	330	330	1000	ug/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9060A		

Notes:Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
 DL: Detection Limit PF: Prep Factor
 MDA: Minimum Detectable Activity RL: Reporting Limit
 MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Certificate of Analysis

Report Date: December 9, 2020

Company : CH2MHill Plateau Remediation Company
 Address : MSIN R3-50 CHPRC
 PO Box 1600
 Richland, Washington 99352
 Contact: Mr. Scot Fitzgerald
 Project: CHPRC SAF W20-007

Client Sample ID: B3WKC7 Project: CPRC0W20007A
 Sample ID: 528812002 Client ID: CPRC002
 Matrix: WATER
 Collect Date: 05-AUG-20 07:42
 Receive Date: 06-AUG-20
 Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
9060_TOC: COMMON "As Received"												
Total Organic Carbon #1	UX	330	330	1000	ug/L		1	TSM	12/05/20	0034	2068017	1
Total Organic Carbon #2	UX	330	330	1000	ug/L		1					
Total Organic Carbon #3	UX	330	330	1000	ug/L		1					
Total Organic Carbon #4	UX	330	330	1000	ug/L		1					
Total Organic Carbon Average	UX	330	330	1000	ug/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9060A		

Notes:Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
 DL: Detection Limit PF: Prep Factor
 MDA: Minimum Detectable Activity RL: Reporting Limit
 MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Certificate of Analysis

Report Date: December 9, 2020

Company : CH2MHill Plateau Remediation Company
 Address : MSIN R3-50 CHPRC
 PO Box 1600
 Richland, Washington 99352
 Contact: Mr. Scot Fitzgerald
 Project: CHPRC SAF W20-007

Client Sample ID: B3WKX8 Project: CPRC0W20007A
 Sample ID: 528812003 Client ID: CPRC002
 Matrix: WATER
 Collect Date: 05-AUG-20 07:42
 Receive Date: 06-AUG-20
 Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
9060_TOC: COMMON "As Received"												
Total Organic Carbon #1	UX	330	330	1000	ug/L		1	TSM	12/05/20	0113	2068017	1
Total Organic Carbon #2	UX	330	330	1000	ug/L		1					
Total Organic Carbon #3	UX	330	330	1000	ug/L		1					
Total Organic Carbon #4	UX	330	330	1000	ug/L		1					
Total Organic Carbon Average	UX	330	330	1000	ug/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9060A		

Notes:Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
 DL: Detection Limit PF: Prep Factor
 MDA: Minimum Detectable Activity RL: Reporting Limit
 MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

Certificate of Analysis

Report Date: December 9, 2020

Company : CH2MHill Plateau Remediation Company
 Address : MSIN R3-50 CHPRC
 PO Box 1600
 Richland, Washington 99352
 Contact: Mr. Scot Fitzgerald
 Project: CHPRC SAF W20-007

Client Sample ID: B3WKX6	Project: CPRC0W20007A
Sample ID: 528812004	Client ID: CPRC002
Matrix: WATER	
Collect Date: 05-AUG-20 07:42	
Receive Date: 06-AUG-20	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
9060_TOC: COMMON "As Received"												
Total Organic Carbon #1	UX	330	330	1000	ug/L		1	TSM	12/05/20	0152	2068017	1
Total Organic Carbon #2	UX	330	330	1000	ug/L		1					
Total Organic Carbon #3	UX	330	330	1000	ug/L		1					
Total Organic Carbon #4	UX	330	330	1000	ug/L		1					
Total Organic Carbon Average	UX	330	330	1000	ug/L		1					

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9060A		

Notes:

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 9, 2020

CH2M Hill Plateau Remediation Company

MSIN R3-50 CHPRC

PO Box 1600

Richland, Washington

Contact: Mr. Scot Fitzgerald

Workorder: 528812

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Carbon Analysis											
Batch	2068017										
QC1204705522	528812001	DUP									
Total Organic Carbon Average	UX	330	UX	330	ug/L	N/A			TSM	12/04/20	23:15
QC1204705521	LCS										
Total Organic Carbon Average	10000			9020	ug/L		90.2	(80%-120%)		12/04/20	18:39
QC1204705520	MB										
Total Organic Carbon Average			U	330	ug/L					12/04/20	18:30
QC1204705525	528812001	PS									
Total Organic Carbon Average	10.0	UX	0.241	X	9.45	mg/L		92.1	(75%-125%)	12/04/20	23:54

Notes:

The Qualifiers in this report are defined as follows:

- < Sample is below the EPA guidance level for Reactive Releasable Cyanide and/or Reactive Releasable Sulfide
- > Result greater than quantifiable range or greater than upper limit of the analysis range
- B The analyte was detected at a value less than the contract required detection limit (RDL), but greater than or equal to the IDL/MDL (as appropriate).
- C Target analyte was detected in the sample and the associated blank. The associated blank concentration is \geq EQL or is $>$ 5% of the measured concentration and/or decision level for associated samples.
- D Results are reported from a diluted aliquot of sample.
- E Reported value is estimated due to interferences. See comment in narrative.
- N Spike Sample recovery is outside control limits.
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Z Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: 528812

Page 2 of 2

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
----------	-----	--------	------	----	-------	------	------	-------	-------	------	------

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.