



March 01, 2018

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

Re: CHPRC SAF W18-012
Work Order: 444602
SDG: GEL444602

Dear Mr. Fitzgerald:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on December 12, 2017. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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: W18-012-063
Enclosures

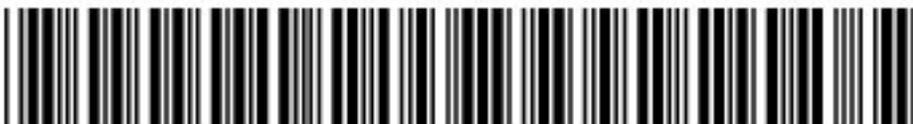


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Recheck, Recount, or Reanalysis Order

RECHECK, RECOUNT, OR REANALYSIS ORDER

02/15/2018

Order Number: 180214GEL-R9376

GEL Laboratories, LLC

2040 Savage Road

Charleston, SC 29407

Sample Delivery Group: GEL439829

Method Name: 6010_METALS_ICP

Sample#: B3FK70

Sample Date: 12/8/2017 10:57:00 AM

SAF #: W18-012

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
439829004	2/15/2018 4:04:41 PM	Potassium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			
439829004	2/15/2018 4:04:41 PM	Magnesium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			
439829004	2/15/2018 4:04:41 PM	Sodium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			
439829004	2/15/2018 4:04:41 PM	Calcium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			

Sample#: B3FK72

Sample Date: 12/8/2017 10:57:00 AM

SAF #: W18-012

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
439829003	2/15/2018 4:04:41 PM	Calcium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			
439829003	2/15/2018 4:04:41 PM	Sodium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			
439829003	2/15/2018 4:04:41 PM	Potassium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			
439829003	2/15/2018 4:04:41 PM	Magnesium	REANALYZE	15 Days / 15 Days
Special Instructions:	Results are out of trend. Please report all originally requested 6010 results in the rerun. SLF 02/15/2018			

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
CHPRC SAF W18-012
SDG: GEL444602**

March 01, 2018

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 December 12, 2017, 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. Samples under this SDG were a client request for reanalysis. Please refer to the enclosed RDR for further details.

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:

Laboratory Identification	Sample Description
444602001	B3FK72
444602002	B3FK70

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: Metals.

We certify that this package is in compliance with the SOW, 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 hard copy data package 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.

3/1/2018

REV.0

Heather Shaffer

Heather Shaffer
Project Manager

Metals
Technical Case Narrative
CH2MHill Plateau Remediation Company (CPRC)
SDG #: GEL444602
Work Order #: 444602

Determination of Metals by ICP

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.

Calibration Information

CRDL/PQL Requirements

The PQL standard recoveries for SW846 6010C or 6010D met the control limits with the exception of potassium. Client sample concentrations were less than the MDL or greater than two times the PQL; therefore the data were not adversely affected. 444602001 (B3FK72) and 444602002 (B3FK70).

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		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C.# W18-012-063		
		Releg 444602 439829 DS 2/23/18				Page 1 of 1		
Collector: Juan Aguilar CHPRC		Contact/Requester: Karen Waters-Husted		Telephone No.: 509-376-4650				
SAF No.: W18-012		Sampling Origin: Hanford Site		Purchase Order/Charge Code: 300071				
Project Title: RCRA, DECEMBER 2017		Logbook No.: HNF-N-506-96169		Ice Chest No.: GWS-395				
Shipped To (Lab): GEL Laboratories, LLC		Method of Shipment Commercial Carrier		Bill of Lading/Air Bill No.: 770950319010				
Protocol RCRA		Priority: 15 Days PRIORITY		Offsite Property No.: 8837				
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 N/A				
Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FK72	Y	W	12-8-17	1057	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01	6 Months	HNO3 to pH <2
B3FK70	N	W	12-8-17	1057	1x250-mL G/P	2320_ALKALINITY: COMMON	14 Days	Cool <=6C
B3FK70	N	W	12-8-17	1057	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01	6 Months	HNO3 to pH <2

3/1/2018

Relinquished By: Juan Aguilar CHPRC Signature: [Signature] Date/Time: DEC 08 2017 1405	Received By: SSU 1 Signature: [Signature] Date/Time: DEC 08 2017 1405	Matrix * S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other	
Relinquished By: SSU-1 Signature: [Signature] Date/Time: DEC 11 2017 0815	Received By: Jeff Tuckson CHPRC Signature: [Signature] Date/Time: DEC 11 2017 0815		
Relinquished By: Jeff Tuckson CHPRC Signature: [Signature] Date/Time: DEC 11 2017 1400	Received By: FEDEX Signature: [Signature] Date/Time: [Signature]		
Relinquished By: FedEx Signature: [Signature] Date/Time: [Signature]	Received By: STACY BOONE Signature: [Signature] Date/Time: 12/12/17		
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:

REV.0

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.	Inorganics	Metals
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	

Laboratory Certifications

List of current GEL Certifications as of 01 March 2018

State	Certification
Alaska	17-018
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
Delaware	SC00012
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 Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA180011
Maryland	270
Massachusetts	M-SC012
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122018-1
New Hampshire NELAP	205415
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S.Carolina Radchem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-18-13
Utah NELAP	SC000122017-25
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
West Virginia	997404

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
CH2MHill Plateau Remediation Company (CPRC)
SDG #: GEL444602
Work Order #: 444602

Product: Determination of Metals by ICP**Analytical Method:** SW846 3005A/6010D**Analytical Procedure:** GL-MA-E-013 REV# 30**Analytical Batch:** 1742323**Preparation Method:** SW846 3005A**Preparation Procedure:** GL-MA-E-006 REV# 14**Preparation Batch:** 1742322

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
444602001	B3FK72
444602002	B3FK70
1203979119	Method Blank (MB)ICP
1203979120	Laboratory Control Sample (LCS)
1203979123	444602001(B3FK72L) Serial Dilution (SD)
1203979121	444602001(B3FK72S) Matrix Spike (MS)
1203979122	444602001(B3FK72SD) Matrix Spike Duplicate (MSD)

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.

Calibration Information**CRDL/PQL Requirements**

The PQL standard recoveries for SW846 6010C or 6010D met the control limits with the exception of potassium. Client sample concentrations were less than the MDL or greater than two times the PQL; therefore the data were not adversely affected. 444602001 (B3FK72) and 444602002 (B3FK70).

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**

CPRC001 CH2MHill Plateau Remediation Company

Client SDG: GEL444602 GEL Work Order: 444602

The Qualifiers in this report are defined as follows:

- * Duplicate analysis not within control limits
- 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).
- D Results are reported from a diluted aliquot of sample.
- 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.

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: Nik-Cole Elmore****Date: 01 MAR 2018****Title: Data Validator**

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: GEL444602

CONTRACT: CPRC0W18012

METHOD TYPE: SW846

SAMPLE ID:444602001

BASIS: As Received

DATE COLLECTED 08-DEC-17

CLIENT ID: B3FK72

LEVEL: Low

DATE RECEIVED 12-DEC-17

MATRIX: WATER

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-42-8	Boron	15	ug/L	U	15	50	50	1	P	HSC	03/01/18 10:34	030118-1	1742323
7440-70-2	Calcium	77100	ug/L		50	200	200	1	P	HSC	03/01/18 10:34	030118-1	1742323
7439-89-6	Iron	30	ug/L	U	30	100	100	1	P	HSC	03/01/18 10:34	030118-1	1742323
7439-95-4	Magnesium	22000	ug/L		110	300	300	1	P	HSC	03/01/18 10:34	030118-1	1742323
7440-09-7	Potassium	8440	ug/L		50	150	150	1	P	HSC	03/01/18 10:34	030118-1	1742323
7440-23-5	Sodium	15400	ug/L		100	300	300	1	P	HSC	03/01/18 10:34	030118-1	1742323
7440-62-2	Vanadium	18.7	ug/L		1	5	5	1	P	HSC	03/01/18 10:34	030118-1	1742323

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
1742323	1742322	SW846 3005A	50	mL	50	mL	02/26/18	JXM8

***Analytical Methods:**

P SW846 3005A/6010D

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: GEL444602

CONTRACT: CPRC0W18012

METHOD TYPE: SW846

SAMPLE ID:444602002

BASIS: As Received

DATE COLLECTED 08-DEC-17

CLIENT ID: B3FK70

LEVEL: Low

DATE RECEIVED 12-DEC-17

MATRIX: WATER

%SOLIDS: 0

CAS	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-42-8	Boron	15	ug/L	U	15	50	50	1	P	HSC	03/01/18 10:44	030118-1	1742323
7440-70-2	Calcium	74300	ug/L		50	200	200	1	P	HSC	03/01/18 10:44	030118-1	1742323
7439-89-6	Iron	30	ug/L	U	30	100	100	1	P	HSC	03/01/18 10:44	030118-1	1742323
7439-95-4	Magnesium	21400	ug/L		110	300	300	1	P	HSC	03/01/18 10:44	030118-1	1742323
7440-09-7	Potassium	8250	ug/L		50	150	150	1	P	HSC	03/01/18 10:44	030118-1	1742323
7440-23-5	Sodium	14900	ug/L		100	300	300	1	P	HSC	03/01/18 10:44	030118-1	1742323
7440-62-2	Vanadium	18.1	ug/L		1	5	5	1	P	HSC	03/01/18 10:44	030118-1	1742323

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
1742323	1742322	SW846 3005A	50	mL	50	mL	02/26/18	JXM8

***Analytical Methods:**

P SW846 3005A/6010D

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 1, 2018

CH2M Hill Plateau Remediation Company

MSIN R3-50 CHPRC

PO Box 1600

Richland, Washington

Contact: Mr. Scot Fitzgerald

Workorder: 444602

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1742323										
QC1203979120	LCS										
Boron	500			494	ug/L		98.7	(80%-120%)	HSC	03/01/18	10:32
Calcium	5000			5100	ug/L		102	(80%-120%)			
Iron	5000			5080	ug/L		102	(80%-120%)			
Magnesium	5000			5110	ug/L		102	(80%-120%)			
Potassium	5000			5020	ug/L		100	(80%-120%)			
Sodium	5000			4910	ug/L		98.3	(80%-120%)			
Vanadium	500			497	ug/L		99.5	(80%-120%)			
QC1203979119	MB										
Boron			U	15.0	ug/L					03/01/18	10:29
Calcium			U	50.0	ug/L						
Iron			U	30.0	ug/L						
Magnesium			U	110	ug/L						
Potassium			U	50.0	ug/L						
Sodium			U	100	ug/L						

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QC Summary

Workorder: 444602

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Parname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1742323										
Vanadium			U	1.00	ug/L				HSC	03/01/18	10:29
QC1203979121 444602001 MS											
Boron	500	U	15.0	494	ug/L		98.8	(75%-125%)		03/01/18	10:37
Calcium	5000		77100	84300	ug/L		N/A	(75%-125%)			
Iron	5000	U	30.0	5010	ug/L		100	(75%-125%)			
Magnesium	5000		22000	27400	ug/L		N/A	(75%-125%)			
Potassium	5000		8440	13700	ug/L		105	(75%-125%)			
Sodium	5000		15400	20300	ug/L		97.7	(75%-125%)			
Vanadium	500		18.7	514	ug/L		99	(75%-125%)			
QC1203979122 444602001 MSD											
Boron	500	U	15.0	488	ug/L	1.29	97.5	(0%-20%)		03/01/18	10:39
Calcium	5000		77100	79600	ug/L	5.74	N/A	(0%-20%)			
Iron	5000	U	30.0	4910	ug/L	1.99	98	(0%-20%)			
Magnesium	5000		22000	26500	ug/L	3.09	N/A	(0%-20%)			
Potassium	5000		8440	13200	ug/L	3.75	94.8	(0%-20%)			
Sodium	5000		15400	19600	ug/L	3.32	84.4	(0%-20%)			

GEL LABORATORIES LLC

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

QC Summary

Workorder: 444602

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Parname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch	1742323										
Vanadium	500	18.7		501	ug/L	2.51	96.5	(0%-20%)	HSC	03/01/18	10:39
QC1203979123 444602001 SDILT											
Boron	U	-12.3	DU	75.0	ug/L	N/A		(0%-20%)		03/01/18	10:41
Calcium		77100	D	15600	ug/L	1.13		(0%-20%)			
Iron	U	5.79	DU	150	ug/L	N/A		(0%-20%)			
Magnesium		22000	D	4630	ug/L	5.38		(0%-20%)			
Potassium		8440	D	1760	ug/L	4.25		(0%-20%)			
Sodium		15400	D	3120	ug/L	1.34		(0%-20%)			
Vanadium		18.7	BD	3.72	ug/L	.678		(0%-20%)			

Notes:

The Qualifiers in this report are defined as follows:

- * Duplicate analysis not within control limits
- + Correlation coefficient for Method of Standard Additions (MSA) is < 0.995
- 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.
- M Duplicate precision not met.
- N Spike Sample recovery is outside control limits.
- S Reported value determined by the Method of Standard Additions (MSA)
- U Analyzed for but not detected above limiting criteria. Includes MDL, MDA, PQL, zero, counting error, and total analytical error.
- W Post-digestion spike recovery for GFAA out of control limit. Sample absorbency < 50% of spike absorbency.
- X 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: 444602

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

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.