GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
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June 27, 2016

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

Re: CHPRC SAF I16-017
Work Order: 395480
SDG: GEL395480

Dear Mr. Fitzgerald:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 16, 2016. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. Per change order, this package was revised to correct the Appedix IX Volatiles reporting list.

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

Heather Shaffer
Project Manager

Purchase Order: 300071JDBA
Chain of Custody: I16-017-019
Enclosures

Table of Contents

SAMPLE ISSUE RESOLUTION

SIR NUM	SIR16-483
REV NUM	0
DATE INITIATED	7/7/2016

SAMPLE EVENT INFORMATION

SAF NUM(S)	I16-017
OPERABLE UNIT(S)	200-ZP-1
PROJECT(S)	CERC16
SAMPLE EVENT TITLE(S)	CERC16
LABORATORY	GEL Laboratories, LLC

SAMPLING INFORMATION

NUMBER OF SAMPLES	1
SAMPLE NUMBERS	B34CC1
SAMPLE MATRIX	WATER
COLLECTION DATE	4/15/2016 - 4/15/2016
SDG NUM	GEL395480

ISSUE BACKGROUND

CLASS	Sample Management Issues
TYPE	Analyte Correction
DESCRIPTION	SMR discovered the 8260_VOA_GCMS_IX: COMMON service list for GEL inadvertetnly omitted several compounds. Omitted compounds were: Bromodichloromethane (75-27-4), bromomethane (74-83-9), ethyl cyanide (107-12-0), Methyl methacrylate (80-62-6), trichlorofluoromethane (75-69-4), cis-1,2-dichloroethene (156-59-2) and 1,4-dichlorobenzene (106-46-7).

DISPOSITION

DESCRIPTION	Please add the omitted compounds.
JUSTIFICATION	Final Disposition: Add the compounds and re-issue the report. SUBMITTED BY: Doris Ayres DATE: 07/07/2016 ACCEPTED BY: Heather Shaffer DATE: 07/07/2016

Case Narrative

Per change order, this package was revised to correct the Appedix IX Volatiles reporting list.

General Narrative
for
CH2MHill Plateau Remediation Company
CHPRC SAF I16-017
SDG: GEL395480

June 27, 2016

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 April 16, 2016, for analysis. The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

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 and DER.

Sample Identification
The laboratory received the following sample:

Laboratory Identification	Sample Description
395480001	B34CC1

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: GC/MS Volatile.

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.

June 29, 2016

Heather Shaffer

Heather Shaffer
Project Manager

GC/MS Volatile
Technical Case Narrative
CH2MHill Plateau Remediation Company (CPRC)
SDG #: GEL395480
Work Order #: 395480

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

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

Continuing Calibration Verification Requirements
The calibration verification standard requirements were not all met for samples 1203535049 (MB), 1203535051 (B34CC1PS) and 1203535052 (B34CC1PSD). Acrolein recovered at 25.2%D/drift and Isobuytl alcohol recovered at 20.8%D/drift. There were no positive results for any of the analytes that were outside the calibration criteria. The results are reported.

Quality Control (QC) Information

Matrix Spike/Matrix Spike Duplicate Recovery Statement
The spike and/or spike duplicate (See Below) recoveries were not all within the acceptance limits. The recoveries were similar. It is believed possible matrix interference has been demonstrated.

Sample	Analyte	Value
1203535051 (B34CC1PS)	Acetone	62* (70%-130%)
	Carbon tetrachloride	47* (70%-130%)
1203535052 (B34CC1PSD)	Acetone	68* (70%-130%)
	Carbon tetrachloride	60* (70%-130%)

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair (See Below) were not all within the acceptance limits. However, the spike recoveries passed. The unacceptable RPD may be attributed to matrix interference and/or sample non-homogeneity.

Sample	Analyte	Value
1203535051PS and 1203535052PSD (B34CC1)	Dichlorodifluoromethane	23* (0%-20%)

Technical Information

Sample Dilutions/Methanol Dilutions
Sample 395480001 (B34CC1) was diluted because target analyte concentrations exceeded the calibration range.

Analyte	395480
	001
Carbon tetrachloride	2X

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

7416S

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 395480	C.O.C. # I16-017-019 Page 1 of 1

Collector	Scott King CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I16-017	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	200-ZP-1, MARCH 2016	**Logbook No.**	HNF-N-506 82/71	**Ice Chest No.**	GWS-455
Shipped To (Lab)	GEL Laboratories, LLC	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	776121865162
Protocol	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	6538

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** 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 **Hold Time** Total Activity Exemption: Yes ☑ No ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B34CC1	N	W	APR 15 2016	1117	4x40-mL aGs*	8260_VOA_GCMS_IX: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Scott King CHPRC		APR 15 2016 1225		J.C. Fulton/CHPRC		APR 15 2016 1225
Relinquished By	J.C. Fulton/CHPRC		APR 15 2016 1400	Received By	FEDEX		Date/Time
Relinquished By			Date/Time	Received By	M. Karlow		4-16-16 0840
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	=	Drum Solids	
SE	= Sediment	DL	=	Drum Liquids	
SO	= Solid	T	=	Tissue	
SL	= Sludge	WI	=	Wipe	
W	= Water	L	=	Liquid	
O	= Oil	V	=	Vegetation	
A	= Air	X	=	Other	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 4/13/2016 FSR ID = FSR31387 A-6004-842 (REV 2)

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: CPRC	SDG/AR/COC/Work Order: 395480
Received By: MC	Date Received: 4-16-16

Suspected Hazard Information	Yes	No	
COC/Samples marked as radioactive?		✓	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
Classified Radioactive II or III by RSO?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): Cpm 0
COC/Samples marked containing PCBs?		✓	If yes, Were swipes taken of sample containers < action levels?
Package, COC, and/or Samples marked as beryllium or asbestos containing?		✓	If yes, samples are to be segregated as Safety Controlled Samples, and opened by the GEL Safety Group.
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		✓	

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: Ice bags Blue ice Dry ice None Other (describe) *all temperatures are recorded in Celsius 2 C
2a	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: 130461961 Secondary Temperature Device Serial # (If Applicable):
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	Do Low Level Perchlorate samples have headspace as required?				Sample ID's and containers affected:
7	VOA vials contain acid preservation?				(If unknown, select No)
8	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
9	Are Encore containers present?			✓	(If yes, immediately deliver to Volatiles laboratory)
10	Samples received within holding time?	✓			ID's and tests affected:
11	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
12	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
13	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
14	Are sample containers identifiable as GEL provided?			✓	
15	COC form is properly signed in relinquished/received sections?	✓			
16	Carrier and tracking number.				Circle Applicable: FedEx Air FedEx Ground UPS Field Services Courier Other 7761 1899 2997 2C 1899 3294 2C 2186 5162 2C

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials DS Date 4/18/16 Page 1 of 1

Data Review Qualifier Definitions

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 (843) 556−8171

Report Date: 27−JUN−16

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 (0rganics 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 associated QC sample blank has a result >= 2X the MDA and, after corrections, result is >= MDA for this sample	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 >= 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 >= 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 27 June 2016

State	Certification
Alaska	UST−0110
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	LA160006
Maryland	270
Massachusetts	M−SC012
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122016−1
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
S.Carolina Radchem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−16−11
Utah NELAP	SC000122016−20
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
West Virginia	997404

Volatile Analysis

Case Narrative

GC/MS Volatile
Technical Case Narrative
CH2MHill Plateau Remediation Company (CPRC)
SDG #: GEL395480
Work Order #: 395480

Product: **Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer**
Analytical Method: SW846 8260C
Analytical Procedure: GL-OA-E-038 REV# 22
Analytical Batch: 1562312

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

GEL Sample ID#	Client Sample Identification
395480001	B34CC1
1203535049	Method Blank (MB)
1203535050	Laboratory Control Sample (LCS)
1203535051	395480001(B34CC1) Post Spike (PS)
1203535052	395480001(B34CC1) Post Spike Duplicate (PSD)

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

Continuing Calibration Verification Requirements
The calibration verification standard requirements were not all met for samples 1203535049 (MB), 1203535051 (B34CC1PS), 1203535052 (B34CC1PSD) and 395480001 (B34CC1). Acrolein recovered at 25.2%D/drift and Isobuytl alcohol recovered at 20.8%D/drift. There were no positive results for any of the analytes that were outside the calibration criteria. The results are reported.

Quality Control (QC) Information

Matrix Spike/Matrix Spike Duplicate Recovery Statement
The spike and/or spike duplicate (See Below) recoveries were not all within the acceptance limits. The recoveries were similar. It is believed possible matrix interference has been demonstrated.

Sample	Analyte	Value
1203535051 (B34CC1PS)	Acetone	62* (70%-130%)
	Carbon tetrachloride	47* (70%-130%)
1203535052 (B34CC1PSD)	Acetone	68* (70%-130%)
	Carbon tetrachloride	60* (70%-130%)

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair (See Below) were not all within the acceptance limits. However, the spike recoveries passed. The unacceptable RPD may be attributed to matrix interference and/or sample non-homogeneity.

Sample	Analyte	Value
1203535051PS and 1203535052PSD (B34CC1)	Dichlorodifluoromethane	23* (0%-20%)

Technical Information

Sample Dilutions/Methanol Dilutions
Sample 395480001 (B34CC1) was diluted because target analyte concentrations exceeded the calibration range.

Analyte	395480 001
Carbon tetrachloride	2X

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: GEL395480 GEL Work Order: 395480

The Qualifiers in this report are defined as follows:

D Results are reported from a diluted aliquot of sample.
E Concentration exceeds the calibration range of the instrument
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
T Spike and/or spike duplicate 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.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

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: Erin Haubert **Name: Erin Haubert**

Date: 12 MAY 2016 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL395480**	**Date Collected:**	**04/15/2016 11:17**	**Matrix:**	**WATER**
Lab Sample ID:	**395480001**	**Date Received:**	**04/16/2016 08:40**		
		Client:	**CPRC001**	**Project:**	**CPRC0I16017**
Client ID:	**B34CC1DL**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1562312**	**Inst:**	**VOA3.I**	**Dilution:**	**2**
Run Date:	**04/26/2016 17:09**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**04/26/2016 17:09**				
Data File:	**042616V3\3G218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
56-23-5	Carbon tetrachloride	DT	163	ug/L	0.600	4.00	3.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL395480**	**Date Collected:**	**04/15/2016 11:17**	**Matrix:**	**WATER**
Lab Sample ID:	**395480001**	**Date Received:**	**04/16/2016 08:40**		
		Client:	**CPRC001**	**Project:**	**CPRC0I16017**
Client ID:	**B34CC1**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1562312**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**04/26/2016 17:40**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**04/26/2016 17:40**				
Data File:	**042616V3\3G219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
79-01-6	Trichloroethylene	U	0.300	ug/L	0.300	2.00	1.00
630-20-6	1,1,1,2-Tetrachloroethane	U	0.300	ug/L	0.300	2.00	1.7
106-46-7	1,4-Dichlorobenzene	U	0.300	ug/L	0.300	2.00	4.00
100-41-4	Ethylbenzene	U	0.300	ug/L	0.300	2.00	4.00
71-55-6	1,1,1-Trichloroethane	U	0.300	ug/L	0.300	2.00	5.00
79-34-5	1,1,2,2-Tetrachloroethane	U	0.300	ug/L	0.300	2.00	5.00
79-00-5	1,1,2-Trichloroethane	U	0.300	ug/L	0.300	2.00	5.00
75-35-4	1,1-Dichloroethylene	U	0.300	ug/L	0.300	2.00	5.00
96-18-4	1,2,3-Trichloropropane	U	0.300	ug/L	0.300	2.00	5.00
96-12-8	1,2-Dibromo-3-chloropropane	U	0.500	ug/L	0.500	2.00	5.00
106-93-4	1,2-Dibromoethane	U	0.300	ug/L	0.300	2.00	5.00
107-06-2	1,2-Dichloroethane	U	0.300	ug/L	0.300	2.00	5.00
78-87-5	1,2-Dichloropropane	U	0.300	ug/L	0.300	2.00	5.00
71-43-2	Benzene	U	0.300	ug/L	0.300	2.00	5.00
75-27-4	Bromodichloromethane	U	0.300	ug/L	0.300	2.00	5.00
75-25-2	Bromoform	U	0.300	ug/L	0.300	2.00	5.00
75-15-0	Carbon disulfide	U	1.60	ug/L	1.60	10.0	5.00
108-90-7	Chlorobenzene	U	0.300	ug/L	0.300	2.00	5.00
67-66-3	Chloroform	J	1.81	ug/L	0.300	2.00	5.00
124-48-1	Dibromochloromethane	U	0.300	ug/L	0.300	2.00	5.00
75-09-2	Methylene chloride	U	1.60	ug/L	1.60	5.00	5.00
100-42-5	Styrene	U	0.300	ug/L	0.300	2.00	5.00
127-18-4	Tetrachloroethylene	U	0.300	ug/L	0.300	2.00	5.00
108-88-3	Toluene	U	0.300	ug/L	0.300	2.00	5.00
156-59-2	cis-1,2-Dichloroethylene	U	0.300	ug/L	0.300	2.00	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	0.300	ug/L	0.300	2.00	5.00
156-60-5	trans-1,2-Dichloroethylene	U	0.300	ug/L	0.300	2.00	5.00
10061-02-6	trans-1,3-Dichloropropylene	U	0.300	ug/L	0.300	2.00	5.00
75-34-3	1,1-Dichloroethane	U	0.300	ug/L	0.300	2.00	10.0
78-93-3	2-Butanone	U	3.00	ug/L	3.00	10.0	10.0
126-99-8	2-Chloro-1,3-butadiene	U	0.300	ug/L	0.300	2.00	10.0
108-10-1	4-Methyl-2-pentanone	U	3.00	ug/L	3.00	10.0	10.0
107-05-1	Allyl chloride	U	3.00	ug/L	3.00	10.0	10.0
74-83-9	Bromomethane	U	0.300	ug/L	0.300	2.00	10.0
75-00-3	Chloroethane	U	0.300	ug/L	0.300	2.00	10.0
74-87-3	Chloromethane	U	0.300	ug/L	0.300	2.00	10.0
74-95-3	Dibromomethane	U	0.300	ug/L	0.300	2.00	10.0
75-71-8	Dichlorodifluoromethane	U	0.300	ug/L	0.300	2.00	10.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**GEL395480**	**Date Collected:**	**04/15/2016 11:17**	**Matrix:**	**WATER**
Lab Sample ID:	**395480001**	**Date Received:**	**04/16/2016 08:40**		
		Client:	**CPRC001**	**Project:**	**CPRC0I16017**
Client ID:	**B34CC1**	**Method:**	**SW846 8260C**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1562312**	**Inst:**	**VOA3.I**	**Dilution:**	**1**
Run Date:	**04/26/2016 17:40**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**04/26/2016 17:40**				
Data File:	**042616V3\3G219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	RDL
97-63-2	Ethyl methacrylate	U	3.00	ug/L	3.00	10.0	10.0
74-88-4	Iodomethane	U	3.00	ug/L	3.00	10.0	10.0
126-98-7	Methacrylonitrile	U	3.00	ug/L	3.00	10.0	10.0
80-62-6	Methyl methacrylate	U	3.00	ug/L	3.00	10.0	10.0
107-12-0	Propionitrile	U	3.00	ug/L	3.00	10.0	10.0
75-69-4	Trichlorofluoromethane	U	0.300	ug/L	0.300	2.00	10.0
75-01-4	Vinyl chloride	U	0.300	ug/L	0.300	2.00	10.0
1330-20-7	Xylenes (total)	U	0.300	ug/L	0.300	6.00	10.0
591-78-6	2-Hexanone	U	3.00	ug/L	3.00	10.0	20.0
67-64-1	Acetone	TU	3.00	ug/L	3.00	10.0	20.0
108-05-4	Vinyl acetate	U	1.60	ug/L	1.60	5.00	50.0
110-57-6	trans-1,4-Dichloro-2-butene	U	1.50	ug/L	1.50	10.0	50.0
75-05-8	Acetonitrile	U	16.7	ug/L	16.7	50.0	100
107-02-8	Acrolein	U	3.00	ug/L	3.00	10.0	100
107-13-1	Acrylonitrile	U	3.00	ug/L	3.00	10.0	100
78-83-1	Isobutyl alcohol	U	33.0	ug/L	33.0	100	500

Quality Control Summary

GEL LABORATORIES LLC
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QC Summary

Report Date: June 27, 2016

CH2MHill Plateau Remediation Company
MSIN R3-50 CHPRC
PO Box 1600
Richland, Washington

Contact: **Mr. Scot Fitzgerald**

Workorder: **395480**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 1562312										
QC1203535050 LCS										
1,1,1,2-Tetrachloroethane	50.0			52.8	ug/L		106	(70%-130%)	CDS1	04/26/16 09:32
1,1,1-Trichloroethane	50.0			56.3	ug/L		113	(70%-130%)		
1,1,2,2-Tetrachloroethane	50.0			53.5	ug/L		107	(70%-130%)		
1,1,2-Trichloroethane	50.0			51.6	ug/L		103	(70%-130%)		
1,1-Dichloroethane	50.0			54.4	ug/L		109	(70%-130%)		
1,1-Dichloroethylene	50.0			54.5	ug/L		109	(70%-130%)		
1,2,3-Trichloropropane	50.0			50.3	ug/L		101	(70%-130%)		
1,2-Dibromo-3-chloropropane	50.0			53.2	ug/L		106	(70%-130%)		
1,2-Dibromoethane	50.0			50.3	ug/L		101	(70%-130%)		
1,2-Dichloroethane	50.0			52.8	ug/L		106	(70%-130%)		
1,2-Dichloropropane	50.0			53.8	ug/L		108	(70%-130%)		
1,4-Dichlorobenzene	50.0			50.2	ug/L		100	(70%-130%)		
2-Butanone	250			276	ug/L		110	(70%-130%)		
2-Hexanone	250			276	ug/L		110	(70%-130%)		
4-Methyl-2-pentanone	250			243	ug/L		97	(70%-130%)		
Acetone	250			285	ug/L		114	(70%-130%)		
Acetonitrile	1250			1210	ug/L		97	(70%-130%)		
Benzene	50.0			53.6	ug/L		107	(70%-130%)		
Bromodichloromethane	50.0			55.3	ug/L		111	(70%-130%)		
Bromoform	50.0			54.5	ug/L		109	(70%-130%)		

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QC Summary

Workorder: 395480

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 1562312										
Bromomethane	50.0			50.5	ug/L		101	(70%-130%)	CDS1	04/26/16 09:32
Carbon disulfide	250			273	ug/L		109	(70%-130%)		
Carbon tetrachloride	50.0			53.6	ug/L		107	(70%-130%)		
Chlorobenzene	50.0			51.4	ug/L		103	(70%-130%)		
Chloroethane	50.0			52.6	ug/L		105	(70%-130%)		
Chloroform	50.0			53.6	ug/L		107	(70%-130%)		
Chloromethane	50.0			50.1	ug/L		100	(70%-130%)		
Dibromochloromethane	50.0			54.1	ug/L		108	(70%-130%)		
Dibromomethane	50.0			53.0	ug/L		106	(70%-130%)		
Dichlorodifluoromethane	50.0			51.0	ug/L		102	(70%-130%)		
Ethylbenzene	50.0			52.4	ug/L		105	(70%-130%)		
Iodomethane	250			255	ug/L		102	(70%-130%)		
Methylene chloride	50.0			53.6	ug/L		107	(70%-130%)		
Styrene	50.0			51.5	ug/L		103	(70%-130%)		
Tetrachloroethylene	50.0			51.0	ug/L		102	(70%-130%)		
Toluene	50.0			53.4	ug/L		107	(70%-130%)		
Trichloroethylene	50.0			53.5	ug/L		107	(70%-130%)		
Trichlorofluoromethane	50.0			50.1	ug/L		100	(70%-130%)		
Vinyl acetate	250			257	ug/L		103	(70%-130%)		
Vinyl chloride	50.0			49.5	ug/L		99	(70%-130%)		
Xylenes (total)	150			154	ug/L		103	(70%-130%)		

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QC Summary

Workorder: 395480

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS										
Batch 1562312										
cis-1,2-Dichloroethylene	50.0			49.9	ug/L		100	(70%-130%)		
cis-1,3-Dichloropropylene	50.0			56.8	ug/L		114	(70%-130%)	CDS1	04/26/16 09:32
trans-1,2-Dichloroethylene	50.0			52.9	ug/L		106	(70%-130%)		
trans-1,3-Dichloropropylene	50.0			58.0	ug/L		116	(70%-130%)		
**1,2-Dichloroethane-d4	50.0			46.0	ug/L		92	(70%-130%)		
**Bromofluorobenzene	50.0			51.6	ug/L		103	(70%-130%)		
**Toluene-d8	50.0			47.3	ug/L		95	(70%-130%)		
QC1203535049 MB										
1,1,1,2-Tetrachloroethane			U	0.300	ug/L					04/26/16 10:33
1,1,1-Trichloroethane			U	0.300	ug/L					
1,1,2,2-Tetrachloroethane			U	0.300	ug/L					
1,1,2-Trichloroethane			U	0.300	ug/L					
1,1-Dichloroethane			U	0.300	ug/L					
1,1-Dichloroethylene			U	0.300	ug/L					
1,2,3-Trichloropropane			U	0.300	ug/L					
1,2-Dibromo-3-chloropropane			U	0.500	ug/L					
1,2-Dibromoethane			U	0.300	ug/L					
1,2-Dichloroethane			U	0.300	ug/L					
1,2-Dichloropropane			U	0.300	ug/L					
1,4-Dichlorobenzene			U	0.300	ug/L					
2-Butanone			U	3.00	ug/L					
2-Chloro-1,3-butadiene			U	0.300	ug/L					
2-Hexanone			U	3.00	ug/L					

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QC Summary

Workorder: 395480

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 1562312											
4-Methyl-2-pentanone			U	3.00	ug/L				CDS1	04/26/16	10:33
Acetone			U	3.00	ug/L						
Acetonitrile			U	16.7	ug/L						
Acrolein			U	3.00	ug/L						
Acrylonitrile			U	3.00	ug/L						
Allyl chloride			U	3.00	ug/L						
Benzene			U	0.300	ug/L						
Bromodichloromethane			U	0.300	ug/L						
Bromoform			U	0.300	ug/L						
Bromomethane			U	0.300	ug/L						
Carbon disulfide			U	1.60	ug/L						
Carbon tetrachloride			U	0.300	ug/L						
Chlorobenzene			U	0.300	ug/L						
Chloroethane			U	0.300	ug/L						
Chloroform			U	0.300	ug/L						
Chloromethane			U	0.300	ug/L						
Dibromochloromethane			U	0.300	ug/L						
Dibromomethane			U	0.300	ug/L						
Dichlorodifluoromethane			U	0.300	ug/L						
Ethyl methacrylate			U	3.00	ug/L						
Ethylbenzene			U	0.300	ug/L						

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QC Summary

Workorder: **395480**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS											
Batch 1562312											
Iodomethane			U	3.00	ug/L						
Isobutyl alcohol			U	33.0	ug/L				CDS1	04/26/16	10:33
Methacrylonitrile			U	3.00	ug/L						
Methyl methacrylate			U	3.00	ug/L						
Methylene chloride			U	1.60	ug/L						
Propionitrile			U	3.00	ug/L						
Styrene			U	0.300	ug/L						
Tetrachloroethylene			U	0.300	ug/L						
Toluene			U	0.300	ug/L						
Trichloroethylene			U	0.300	ug/L						
Trichlorofluoromethane			U	0.300	ug/L						
Vinyl acetate			U	1.60	ug/L						
Vinyl chloride			U	0.300	ug/L						
Xylenes (total)			U	0.300	ug/L						
cis-1,2-Dichloroethylene			U	0.300	ug/L						
cis-1,3-Dichloropropylene			U	0.300	ug/L						
trans-1,2-Dichloroethylene			U	0.300	ug/L						
trans-1,3-Dichloropropylene			U	0.300	ug/L						
trans-1,4-Dichloro-2-butene			U	1.50	ug/L						
**1,2-Dichloroethane-d4	50.0			45.5	ug/L		91	(70%-130%)			
**Bromofluorobenzene	50.0			50.0	ug/L		100	(70%-130%)			
**Toluene-d8	50.0			49.0	ug/L		98	(70%-130%)			

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QC Summary

Workorder: **395480**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 1562312											
QC1203535051 395480001 PS											
1,1,1,2-Tetrachloroethane	50.0	U	0.00		53.7	ug/L		107	(70%-130%)	CDS1	04/26/16 18:10
1,1,1-Trichloroethane	50.0	U	0.00		56.9	ug/L		114	(70%-130%)		
1,1,2,2-Tetrachloroethane	50.0	U	0.00		51.2	ug/L		102	(70%-130%)		
1,1,2-Trichloroethane	50.0	U	0.00		50.8	ug/L		102	(70%-130%)		
1,1-Dichloroethane	50.0	U	0.00		58.3	ug/L		117	(70%-130%)		
1,1-Dichloroethylene	50.0	U	0.00		53.3	ug/L		107	(70%-130%)		
1,2,3-Trichloropropane	50.0	U	0.00		46.5	ug/L		93	(70%-130%)		
1,2-Dibromo-3-chloropropane	50.0	U	0.00		48.8	ug/L		98	(70%-130%)		
1,2-Dibromoethane	50.0	U	0.00		47.8	ug/L		96	(70%-130%)		
1,2-Dichloroethane	50.0	U	0.00		55.9	ug/L		112	(70%-130%)		
1,2-Dichloropropane	50.0	U	0.00		57.6	ug/L		115	(70%-130%)		
1,4-Dichlorobenzene	50.0	U	0.00		50.6	ug/L		101	(70%-130%)		
2-Butanone	250	U	0.00		187	ug/L		75	(70%-130%)		
2-Hexanone	250	U	0.00		194	ug/L		78	(70%-130%)		
4-Methyl-2-pentanone	250	U	0.00		236	ug/L		94	(70%-130%)		
Acetone	250	TU	2.54	T	157	ug/L		62*	(70%-130%)		
Acetonitrile	1250	U	0.00		1210	ug/L		97	(70%-130%)		
Benzene	50.0	U	0.00		57.3	ug/L		115	(70%-130%)		
Bromodichloromethane	50.0	U	0.00		56.1	ug/L		112	(70%-130%)		
Bromoform	50.0	U	0.00		51.9	ug/L		104	(70%-130%)		
Bromomethane	50.0	U	0.00		49.9	ug/L		100	(70%-130%)		
Carbon disulfide	250	U	0.00		276	ug/L		110	(70%-130%)		

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QC Summary

Workorder: 395480

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 1562312											
Carbon tetrachloride	50.0	ET	165	ET	188	ug/L		47*	(70%-130%)	CDS1	04/26/16 18:10
Chlorobenzene	50.0	U	0.00		52.8	ug/L		106	(70%-130%)		
Chloroethane	50.0	U	0.00		46.8	ug/L		94	(70%-130%)		
Chloroform	50.0	J	1.81		57.4	ug/L		111	(70%-130%)		
Chloromethane	50.0	U	0.00		45.7	ug/L		91	(70%-130%)		
Dibromochloromethane	50.0	U	0.00		54.6	ug/L		109	(70%-130%)		
Dibromomethane	50.0	U	0.00		53.6	ug/L		107	(70%-130%)		
Dichlorodifluoromethane	50.0	U	0.00		42.3	ug/L		85	(70%-130%)		
Ethylbenzene	50.0	U	0.00		52.8	ug/L		106	(70%-130%)		
Iodomethane	250	U	0.00		254	ug/L		102	(70%-130%)		
Methylene chloride	50.0	U	0.00		53.1	ug/L		106	(70%-130%)		
Styrene	50.0	U	0.00		54.2	ug/L		108	(70%-130%)		
Tetrachloroethylene	50.0	U	0.00		52.7	ug/L		105	(70%-130%)		
Toluene	50.0	U	0.00		55.4	ug/L		111	(70%-130%)		
Trichloroethylene	50.0	U	0.00		56.3	ug/L		113	(70%-130%)		
Trichlorofluoromethane	50.0	U	0.00		43.3	ug/L		87	(70%-130%)		
Vinyl acetate	250	U	0.00		253	ug/L		101	(70%-130%)		
Vinyl chloride	50.0	U	0.00		43.3	ug/L		87	(70%-130%)		
Xylenes (total)	150	U	0.00		161	ug/L		107	(70%-130%)		
cis-1,2-Dichloroethylene	50.0	U	0.00		53.6	ug/L		107	(70%-130%)		
cis-1,3-Dichloropropylene	50.0	U	0.00		57.2	ug/L		114	(70%-130%)		

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QC Summary

Workorder: 395480

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 1562312											
trans-1,2-Dichloroethylene	50.0	U	0.00		56.0	ug/L		112	(70%-130%)		
trans-1,3-Dichloropropylene	50.0	U	0.00		56.0	ug/L		112	(70%-130%)	CDS1	04/26/16 18:10
**1,2-Dichloroethane-d4	50.0		45.1		44.1	ug/L		88	(70%-130%)		
**Bromofluorobenzene	50.0		47.2		49.8	ug/L		100	(70%-130%)		
**Toluene-d8	50.0		50.0		48.1	ug/L		96	(70%-130%)		
QC1203535052 395480001 PSD											
1,1,1,2-Tetrachloroethane	50.0	U	0.00		53.1	ug/L	1	106	(0%-20%)		04/26/16 18:41
1,1,1-Trichloroethane	50.0	U	0.00		59.1	ug/L	4	118	(0%-20%)		
1,1,2,2-Tetrachloroethane	50.0	U	0.00		52.6	ug/L	3	105	(0%-20%)		
1,1,2-Trichloroethane	50.0	U	0.00		51.5	ug/L	1	103	(0%-20%)		
1,1-Dichloroethane	50.0	U	0.00		56.3	ug/L	4	113	(0%-20%)		
1,1-Dichloroethylene	50.0	U	0.00		56.4	ug/L	6	113	(0%-20%)		
1,2,3-Trichloropropane	50.0	U	0.00		47.2	ug/L	1	94	(0%-20%)		
1,2-Dibromo-3-chloropropane	50.0	U	0.00		51.4	ug/L	5	103	(0%-20%)		
1,2-Dibromoethane	50.0	U	0.00		48.6	ug/L	2	97	(0%-20%)		
1,2-Dichloroethane	50.0	U	0.00		55.0	ug/L	2	110	(0%-20%)		
1,2-Dichloropropane	50.0	U	0.00		59.0	ug/L	2	118	(0%-20%)		
1,4-Dichlorobenzene	50.0	U	0.00		49.4	ug/L	2	99	(0%-20%)		
2-Butanone	250	U	0.00		208	ug/L	11	83	(0%-20%)		
2-Hexanone	250	U	0.00		202	ug/L	4	81	(0%-20%)		
4-Methyl-2-pentanone	250	U	0.00		241	ug/L	2	96	(0%-20%)		
Acetone	250	TU	2.54	T	172	ug/L	9	68*	(0%-20%)		
Acetonitrile	1250	U	0.00		1290	ug/L	6	103	(0%-20%)		

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QC Summary

Workorder: 395480

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Volatile-GC/MS												
Batch 1562312												
Benzene	50.0	U	0.00		55.0	ug/L	4	110	(0%-20%)	CDS1	04/26/16	18:41
Bromodichloromethane	50.0	U	0.00		57.1	ug/L	2	114	(0%-20%)			
Bromoform	50.0	U	0.00		52.9	ug/L	2	106	(0%-20%)			
Bromomethane	50.0	U	0.00		59.2	ug/L	17	118	(0%-20%)			
Carbon disulfide	250	U	0.00		282	ug/L	2	113	(0%-20%)			
Carbon tetrachloride	50.0	ET	165	ET	195	ug/L	4	60*	(0%-20%)			
Chlorobenzene	50.0	U	0.00		51.6	ug/L	2	103	(0%-20%)			
Chloroethane	50.0	U	0.00		54.7	ug/L	15	109	(0%-20%)			
Chloroform	50.0	J	1.81		56.1	ug/L	2	109	(0%-20%)			
Chloromethane	50.0	U	0.00		55.4	ug/L	19	111	(0%-20%)			
Dibromochloromethane	50.0	U	0.00		53.7	ug/L	2	107	(0%-20%)			
Dibromomethane	50.0	U	0.00		55.1	ug/L	3	110	(0%-20%)			
Dichlorodifluoromethane	50.0	U	0.00		53.4	ug/L	23*	107	(0%-20%)			
Ethylbenzene	50.0	U	0.00		52.4	ug/L	1	105	(0%-20%)			
Iodomethane	250	U	0.00		265	ug/L	4	106	(0%-20%)			
Methylene chloride	50.0	U	0.00		56.1	ug/L	6	112	(0%-20%)			
Styrene	50.0	U	0.00		51.1	ug/L	6	102	(0%-20%)			
Tetrachloroethylene	50.0	U	0.00		49.2	ug/L	7	98	(0%-20%)			
Toluene	50.0	U	0.00		52.4	ug/L	6	105	(0%-20%)			
Trichloroethylene	50.0	U	0.00		55.6	ug/L	1	111	(0%-20%)			
Trichlorofluoromethane	50.0	U	0.00		50.6	ug/L	16	101	(0%-20%)			

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QC Summary

Workorder: 395480

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Volatile-GC/MS											
Batch 1562312											
Vinyl acetate	250	U	0.00		275	ug/L	8	110	(0%-20%)		
Vinyl chloride	50.0	U	0.00		51.4	ug/L	17	103	(0%-20%)	CDS1	04/26/16 18:41
Xylenes (total)	150	U	0.00		153	ug/L	5	102	(0%-20%)		
cis-1,2-Dichloroethylene	50.0	U	0.00		54.6	ug/L	2	109	(0%-20%)		
cis-1,3-Dichloropropylene	50.0	U	0.00		59.9	ug/L	5	120	(0%-20%)		
trans-1,2-Dichloroethylene	50.0	U	0.00		57.6	ug/L	3	115	(0%-20%)		
trans-1,3-Dichloropropylene	50.0	U	0.00		54.7	ug/L	2	109	(0%-20%)		
**1,2-Dichloroethane-d4	50.0		45.1		46.6	ug/L		93	(70%-130%)		
**Bromofluorobenzene	50.0		47.2		49.6	ug/L		99	(70%-130%)		
**Toluene-d8	50.0		50.0		44.9	ug/L		90	(70%-130%)		

Notes:

The Qualifiers in this report are defined as follows:

- A The TIC is a suspected aldol-condensation product
- B The analyte was detected in both the associated QC blank and in the sample.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of sample.
- E Concentration exceeds the calibration range of the instrument
- 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
- N Spike Sample recovery is outside control limits.
- P Aroclor target analyte with greater than 25% difference between column analyses.
- T Spike and/or spike duplicate 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
- o Analyte failed to recover within LCS limits (0rganics only)

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QC Summary

Workorder: **395480**

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.

Volatile

Surrogate Recovery Report

SDG Number: GEL395480

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1203535050	LCS for batch 1562312	92		95		103	
1203535049	MB for batch 1562312	91		98		100	
395480001	B34CC1DL	88	D	97	D	96	D
395480001	B34CC1	90		100		94	
1203535051	B34CC1PS	88		96		100	
1203535052	B34CC1PSD	93		90		99	

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(70%-130%)
TOL	= Toluene-d8	(70%-130%)
BFB	= Bromofluorobenzene	(70%-130%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted