



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

June 30, 2023

Kyle Siesser

Cottonwood Consulting LLC

PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

RE: Mudge B 012R

OrderNo.: 2306D59

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/27/2023 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 2306D59
Date Reported: 6/30/2023

CLIENT: Cottonwood Consulting LLC
Project: Mudge B 012R
Lab ID: 2306D59-001
Matrix: AIR
Client Sample ID: SVE
Collection Date: 6/21/2023 11:40:00 AM
Received Date: 6/27/2023 8:40:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	240	10		µg/L	2	6/27/2023 12:44:25 PM
Surr: BFB	589	15-412	S	%Rec	2	6/27/2023 12:44:25 PM
EPA METHOD 8021B: VOLATILES						Analyst: JJP
Methyl tert-butyl ether (MTBE)	ND	0.50		µg/L	2	6/27/2023 12:44:25 PM
Benzene	ND	0.20		µg/L	2	6/27/2023 12:44:25 PM
Toluene	ND	0.20		µg/L	2	6/27/2023 12:44:25 PM
Ethylbenzene	0.71	0.20		µg/L	2	6/27/2023 12:44:25 PM
Xylenes, Total	4.1	0.40		µg/L	2	6/27/2023 12:44:25 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	2	6/27/2023 12:44:25 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306D59

30-Jun-23

Client: Cottonwood Consulting LLC

Project: Mudge B 012R

Sample ID: 2306d59-001adup		SampType: DUP		TestCode: EPA Method 8015D: Gasoline Range						
Client ID: SVE		Batch ID: GA97746		RunNo: 97746						
Prep Date:		Analysis Date: 6/27/2023		SeqNo: 3554692		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	240	10						0.0337	20	
Surr: BFB	23000		4000		587	15	412	0	0	S

- Qualifiers:
- *

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

% Recovery outside of standard limits. If undiluted results may be estimated.
- B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306D59

30-Jun-23

Client: Cottonwood Consulting LLC

Project: Mudge B 012R

Sample ID: 2306d59-001adup		SampType: DUP		TestCode: EPA Method 8021B: Volatiles						
Client ID: SVE		Batch ID: R97746		RunNo: 97746						
Prep Date:		Analysis Date: 6/27/2023		SeqNo: 3554694		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.50						0	20	
Benzene	ND	0.20						0	20	
Toluene	ND	0.20						0	20	
Ethylbenzene	0.71	0.20						0.393	20	
Xylenes, Total	4.1	0.40						1.05	20	
Surr: 4-Bromofluorobenzene	4.1		4.000		102	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



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

Sample Log-In Check List

Client Name: Cottonwood Consulting LLC

Work Order Number: 2306D59

RcptNo: 1

Received By: Joseph Alderette

6/27/2023 8:40:00 AM

Completed By: Desiree Dominguez

6/27/2023 10:23:10 AM

Reviewed By: JA 6-27-23

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐

2. How was the sample delivered? FedEx

Log In

3. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒

4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☐ NA ☒

5. Sample(s) in proper container(s)? Yes ☒ No ☐

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: m 6/27/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

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



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

06 July 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Mudge B #012R

Enclosed are the results of analyses for samples received by the laboratory on 06/22/23 09:20. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive, flowing style.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-17

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-23-16



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2306223-01	Water	06/21/23 11:45	06/22/23 09:20	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

MW #2

2306223-01 (Ground Water)

Sampled Date: 06/21/23 11:45

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Dichlorodifluoromethane*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Chloromethane*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Vinyl chloride*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Bromomethane*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Chloroethane*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Trichlorofluoromethane*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
1,1-Dichloroethene*	<0.0005	0.0005	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
Carbon disulfide*	<0.001	0.001	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
Iodomethane	<0.001	0.001	0.00006	mg/L	1	06/30/23 14:32	8260B		MS
Acrolein*	<0.005	0.005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Methylene chloride*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Acetone*	<0.010	0.010	0.0009	mg/L	1	06/30/23 14:32	8260B		MS
trans-1,2-Dichloroethene*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
Methyl tert-butyl ether	<0.001	0.001	0.00003	mg/L	1	06/30/23 14:32	8260B		MS
1,1-Dichloroethane*	<0.0005	0.0005	0.00006	mg/L	1	06/30/23 14:32	8260B		MS
Acrylonitrile*	<0.002	0.002	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
Vinyl acetate*	<0.0005	0.0005	0.00008	mg/L	1	06/30/23 14:32	8260B		MS
cis-1,2-Dichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	06/30/23 14:32	8260B		MS
2,2-Dichloropropane*	<0.0005	0.0005	0.0002	mg/L	1	06/30/23 14:32	8260B		MS
Bromochloromethane*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
Chloroform*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
Carbon tetrachloride*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
1,1,1-Trichloroethane*	<0.0005	0.0005	0.00006	mg/L	1	06/30/23 14:32	8260B		MS
1,1-Dichloropropene*	<0.0005	0.0005	0.0002	mg/L	1	06/30/23 14:32	8260B		MS
2-Butanone*	<0.002	0.002	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Benzene*	<0.0005	0.0005	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
1,2-Dichloroethane*	<0.0005	0.0005	0.00005	mg/L	1	06/30/23 14:32	8260B		MS
Trichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	06/30/23 14:32	8260B		MS
Dibromomethane*	<0.0005	0.0005	0.0002	mg/L	1	06/30/23 14:32	8260B		MS
1,2-Dichloropropane*	<0.0005	0.0005	0.00007	mg/L	1	06/30/23 14:32	8260B		MS
Bromodichloromethane*	<0.0005	0.0005	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
cis-1,3-Dichloropropene*	<0.0005	0.0005	0.00009	mg/L	1	06/30/23 14:32	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

MW #2**2306223-01 (Ground Water)****Sampled Date: 06/21/23 11:45**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**VOLATILES BY GC/MS**

Toluene*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
4-Methyl-2-pentanone*	<0.001	0.001	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
Tetrachloroethene*	<0.0005	0.0005	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
trans-1,3-Dichloropropene*	<0.0005	0.0005	0.00005	mg/L	1	06/30/23 14:32	8260B		MS
1,1,2-Trichloroethane*	<0.0005	0.0005	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
Dibromochloromethane*	<0.0005	0.0005	0.00008	mg/L	1	06/30/23 14:32	8260B		MS
1,3-Dichloropropane*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
1,2-Dibromoethane*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
2-Hexanone*	<0.001	0.001	0.0003	mg/L	1	06/30/23 14:32	8260B		MS
Chlorobenzene*	<0.0005	0.0005	0.00003	mg/L	1	06/30/23 14:32	8260B		MS
Ethylbenzene*	<0.0005	0.0005	0.00003	mg/L	1	06/30/23 14:32	8260B		MS
1,1,1,2-Tetrachloroethane*	<0.0005	0.0005	0.00006	mg/L	1	06/30/23 14:32	8260B		MS
m+p - Xylene*	<0.001	0.001	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
o-Xylene*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
Total Xylenes*	<0.001	0.001	0.0002	mg/L	1	06/30/23 14:32	8260B		MS
Bromoform*	<0.0005	0.0005	0.00006	mg/L	1	06/30/23 14:32	8260B		MS
Styrene*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
Isopropylbenzene*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
Bromobenzene*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
n-Propylbenzene*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.0005	0.0005	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
2-Chlorotoluene*	<0.0005	0.0005	0.00003	mg/L	1	06/30/23 14:32	8260B		MS
1,2,3-trichloropropane*	<0.0005	0.0005	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
1,3,5-Trimethylbenzene*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
trans-1,4-Dichloro-2-butene	<0.010	0.010	0.0001	mg/L	1	06/30/23 14:32	8260B		MS
4-Chlorotoluene*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
tert-Butylbenzene*	<0.0005	0.0005	0.00007	mg/L	1	06/30/23 14:32	8260B		MS
1,2,4-Trimethylbenzene*	<0.0005	0.0005	0.00003	mg/L	1	06/30/23 14:32	8260B		MS
sec-Butylbenzene*	<0.0005	0.0005	0.00001	mg/L	1	06/30/23 14:32	8260B		MS
p-Isopropyltoluene*	<0.0005	0.0005	0.00004	mg/L	1	06/30/23 14:32	8260B		MS
1,3-Dichlorobenzene*	<0.0005	0.0005	0.00002	mg/L	1	06/30/23 14:32	8260B		MS
1,4 Dichlorobenzene*	<0.0005	0.0005	0.00003	mg/L	1	06/30/23 14:32	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

MW #2

2306223-01 (Ground Water)

Sampled Date: 06/21/23 11:45

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

n-Butylbenzene*	<0.0005	0.0005	0.00006	mg/L	1	06/30/23 14:32	8260B		MS
1,2-Dichlorobenzene*	<0.0005	0.0005	0.00005	mg/L	1	06/30/23 14:32	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
Hexachlorobutadiene*	<0.0005	0.0005	0.0005	mg/L	1	06/30/23 14:32	8260B		MS
1,2,4-Trichlorobenzene*	<0.0005	0.0005	0.00007	mg/L	1	06/30/23 14:32	8260B		MS
Naphthalene*	<0.0005	0.0005	0.00005	mg/L	1	06/30/23 14:32	8260B		MS
1,2,3-Trichlorobenzene*	<0.0005	0.0005	0.0002	mg/L	1	06/30/23 14:32	8260B		MS
1,4-Dioxane	<0.010	0.010	0.010	mg/L	1	06/30/23 14:32	8260B		MS
Surrogate: Dibromofluoromethane			104 %	82.4-141		06/30/23 14:32	8260B		MS
Surrogate: Toluene-d8			98.3 %	87.1-110		06/30/23 14:32	8260B		MS
Surrogate: 4-Bromofluorobenzene			91.3 %	76.4-114		06/30/23 14:32	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles

Blank (3062935-BLK1)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.010	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L

Surrogate: 4-Bromofluorobenzene	0.0235		mg/L	0.0250	94.2	76.4-114
4-Chlorotoluene	ND	0.0005	mg/L			
4-Methyl-2-pentanone	ND	0.001	mg/L			
Acetone	ND	0.010	mg/L			
Acrolein	ND	0.005	mg/L			
Acrylonitrile	ND	0.002	mg/L			
Benzene	ND	0.0005	mg/L			
Bromobenzene	ND	0.0005	mg/L			
Bromochloromethane	ND	0.0005	mg/L			
Bromodichloromethane	ND	0.0005	mg/L			
Bromoform	ND	0.0005	mg/L			

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

Blank (3062935-BLK1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.0005	mg/L							
Chlorobenzene	ND	0.0005	mg/L							
Chloroethane	ND	0.0005	mg/L							
Chloroform	ND	0.0005	mg/L							
Chloromethane	ND	0.0005	mg/L							
cis-1,2-Dichloroethene	ND	0.0005	mg/L							
cis-1,3-Dichloropropene	ND	0.0005	mg/L							
Dibromochloromethane	ND	0.0005	mg/L							
Surrogate: Dibromofluoromethane	0.0261		mg/L	0.0250		104	82.4-141			
Dibromomethane	ND	0.0005	mg/L							
Dichlorodifluoromethane	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Hexachlorobutadiene	ND	0.0005	mg/L							
Iodomethane	ND	0.001	mg/L							
Isopropylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Methyl tert-butyl ether	ND	0.001	mg/L							
Methylene chloride	ND	0.0005	mg/L							
Naphthalene	ND	0.0005	mg/L							
n-Butylbenzene	ND	0.0005	mg/L							
n-Propylbenzene	ND	0.0005	mg/L							
o-Xylene	ND	0.0005	mg/L							
p-Isopropyltoluene	ND	0.0005	mg/L							
sec-Butylbenzene	ND	0.0005	mg/L							
Styrene	ND	0.0005	mg/L							
tert-Butylbenzene	ND	0.0005	mg/L							
Tetrachloroethene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
Surrogate: Toluene-d8	0.0247		mg/L	0.0250		98.9	87.1-110			
Total Xylenes	ND	0.001	mg/L							
trans-1,2-Dichloroethene	ND	0.0005	mg/L							
trans-1,3-Dichloropropene	ND	0.0005	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L							
Trichloroethene	ND	0.0005	mg/L							
Trichlorofluoromethane	ND	0.0005	mg/L							
Vinyl acetate	ND	0.0005	mg/L							
Vinyl chloride	ND	0.0005	mg/L							

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS (3062935-BS1)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1,2-Tetrachloroethane	0.019	0.0005	mg/L	0.0200		94.8	82.4-120			
1,1,1-Trichloroethane	0.019	0.0005	mg/L	0.0200		94.8	80.7-121			
1,1,2,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.6	76.5-121			
1,1,2-Trichloroethane	0.018	0.0005	mg/L	0.0200		91.2	81.7-118			
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	74.8-123			
1,1-Dichloroethene	0.023	0.0005	mg/L	0.0200		113	53.9-149			
1,1-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.8	85.9-115			
1,2,3-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		107	76.1-134			
1,2,4-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		105	72.4-136			
1,2,4-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		97.8	67.4-138			
1,2-Dibromo-3-chloropropane	0.020	0.0005	mg/L	0.0200		98.6	71.7-124			
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		93.3	84.9-116			
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		96.4	82.5-119			
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		102	72.5-123			
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		97.0	79.4-117			
1,3,5-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		98.4	69-137			
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		96.4	84.4-120			
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		91.4	82.6-117			
1,4 Dichlorobenzene	0.019	0.0005	mg/L	0.0200		95.8	81.7-118			
1,4-Dioxane	0.366	0.010	mg/L	0.400		91.4	-34.6-193			
1,2,3-trichloropropane	0.021	0.0005	mg/L	0.0200		103	44.7-168			
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		95.6	62.9-136			
2-Butanone	0.037	0.002	mg/L	0.0400		93.6	24.1-159			
2-Chlorotoluene	0.019	0.0005	mg/L	0.0200		97.3	80.2-121			
2-Hexanone	0.035	0.001	mg/L	0.0400		88.0	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0236		mg/L	0.0250		94.6	76.4-114			
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		101	82.2-125			
4-Methyl-2-pentanone	0.037	0.001	mg/L	0.0400		93.3	60.7-139			
Acetone	0.041	0.010	mg/L	0.0400		102	39.1-168			
Acrolein	0.184	0.005	mg/L	0.200		92.1	26.6-161			
Acrylonitrile	0.039	0.002	mg/L	0.0400		97.8	64.9-135			
Benzene	0.020	0.0005	mg/L	0.0200		98.2	69.4-129			
Bromobenzene	0.019	0.0005	mg/L	0.0200		97.2	83.5-115			
Bromochloromethane	0.019	0.0005	mg/L	0.0200		97.2	70.7-123			
Bromodichloromethane	0.019	0.0005	mg/L	0.0200		93.6	80.3-119			
Bromoform	0.021	0.0005	mg/L	0.0200		103	71.1-141			
Bromomethane	0.024	0.0005	mg/L	0.0200		120	55.1-143			
Carbon disulfide	0.041	0.001	mg/L	0.0400		103	53.6-147			
Carbon tetrachloride	0.020	0.0005	mg/L	0.0200		99.7	79.5-125			

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS (3062935-BS1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

Chlorobenzene	0.019	0.0005	mg/L	0.0200		95.1	85.1-115			
Chloroethane	0.023	0.0005	mg/L	0.0200		115	36.9-159			
Chloroform	0.020	0.0005	mg/L	0.0200		101	80.9-119			
Chloromethane	0.022	0.0005	mg/L	0.0200		108	54.2-142			
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		97.6	73.8-128			
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.9	82.5-122			
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0260</i>		mg/L	<i>0.0250</i>		<i>104</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		99.3	77-118			
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		91.4	38.7-147			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		96.4	70.2-130			
Hexachlorobutadiene	0.022	0.0005	mg/L	0.0200		112	78.9-148			
Iodomethane	0.041	0.001	mg/L	0.0400		101	63.5-135			
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		94.4	85-124			
m+p - Xylene	0.038	0.001	mg/L	0.0400		94.6	71.9-133			
Methyl tert-butyl ether	0.040	0.001	mg/L	0.0400		99.8	57.7-137			
Methylene chloride	0.023	0.0005	mg/L	0.0200		115	49.3-163			
Naphthalene	0.020	0.0005	mg/L	0.0200		99.9	62.1-141			
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		99.8	75.4-132			
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		101	79.6-124			
o-Xylene	0.018	0.0005	mg/L	0.0200		91.0	69.4-132			
p-Isopropyltoluene	0.020	0.0005	mg/L	0.0200		99.0	79.8-131			
sec-Butylbenzene	0.020	0.0005	mg/L	0.0200		101	77.6-133			
Styrene	0.019	0.0005	mg/L	0.0200		93.8	71.7-128			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		104	78.8-128			
Tetrachloroethene	0.018	0.0005	mg/L	0.0200		89.8	74.2-128			
Toluene	0.019	0.0005	mg/L	0.0200		93.2	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.6</i>	<i>87.1-110</i>			
Total Xylenes	0.056	0.001	mg/L	0.0600		93.4	71.6-132			
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		104	65.2-133			
trans-1,3-Dichloropropene	0.020	0.0005	mg/L	0.0200		97.6	84-123			
trans-1,4-Dichloro-2-butene	0.047	0.010	mg/L	0.0400		119	9.3-235			
Trichloroethene	0.018	0.0005	mg/L	0.0200		92.1	79.3-114			
Trichlorofluoromethane	0.024	0.0005	mg/L	0.0200		122	28.6-162			
Vinyl acetate	0.018	0.0005	mg/L	0.0200		92.0	50.9-135			
Vinyl chloride	0.020	0.0005	mg/L	0.0200		102	61.6-133			

LCS Dup (3062935-BSD1)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.2	82.4-120	3.47	6.88	
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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS Dup (3062935-BSD1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

1,1,1-Trichloroethane	0.019	0.0005	mg/L	0.0200		97.1	80.7-121	2.45	7.43	
1,1,2,2-Tetrachloroethane	0.019	0.0005	mg/L	0.0200		97.2	76.5-121	1.38	8.68	
1,1,2-Trichloroethane	0.019	0.0005	mg/L	0.0200		93.1	81.7-118	2.01	6.82	
1,1-Dichloroethane	0.021	0.0005	mg/L	0.0200		105	74.8-123	3.40	4.3	
1,1-Dichloroethene	0.023	0.0005	mg/L	0.0200		113	53.9-149	0.00	16.5	
1,1-Dichloropropene	0.020	0.0005	mg/L	0.0200		98.2	85.9-115	1.49	5.47	
1,2,3-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		101	76.1-134	5.60	43	
1,2,4-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		102	72.4-136	2.52	22.3	
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		97.0	67.4-138	0.821	8.94	
1,2-Dibromo-3-chloropropane	0.020	0.0005	mg/L	0.0200		98.1	71.7-124	0.559	15.1	
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		94.6	84.9-116	1.44	5.83	
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		95.4	82.5-119	1.04	8.72	
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	72.5-123	0.788	8.94	
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		97.6	79.4-117	0.514	5.51	
1,3,5-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		96.0	69-137	2.47	16.5	
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		97.0	84.4-120	0.672	9	
1,3-Dichloropropane	0.019	0.0005	mg/L	0.0200		95.0	82.6-117	3.92	6.06	
1,4 Dichlorobenzene	0.019	0.0005	mg/L	0.0200		94.5	81.7-118	1.42	7.71	
1,4-Dioxane	0.367	0.010	mg/L	0.400		91.6	-34.6-193	0.210	35.2	
1,2,3-trichloropropane	0.020	0.0005	mg/L	0.0200		99.8	44.7-168	3.59	49.2	
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		96.4	62.9-136	0.886	9.62	
2-Butanone	0.038	0.002	mg/L	0.0400		96.0	24.1-159	2.50	14.2	
2-Chlorotoluene	0.019	0.0005	mg/L	0.0200		96.0	80.2-121	1.35	8.62	
2-Hexanone	0.036	0.001	mg/L	0.0400		90.0	56.3-139	2.25	7.28	
Surrogate: 4-Bromofluorobenzene	0.0235		mg/L	0.0250		94.0	76.4-114			
4-Chlorotoluene	0.019	0.0005	mg/L	0.0200		96.9	82.2-125	4.05	15.5	
4-Methyl-2-pentanone	0.038	0.001	mg/L	0.0400		95.1	60.7-139	1.86	7.57	
Acetone	0.042	0.010	mg/L	0.0400		105	39.1-168	2.15	30.5	
Acrolein	0.181	0.005	mg/L	0.200		90.5	26.6-161	1.82	22.4	
Acrylonitrile	0.039	0.002	mg/L	0.0400		97.1	64.9-135	0.718	7.62	
Benzene	0.020	0.0005	mg/L	0.0200		97.8	69.4-129	0.306	4.16	
Bromobenzene	0.020	0.0005	mg/L	0.0200		97.8	83.5-115	0.513	8.41	
Bromochloromethane	0.020	0.0005	mg/L	0.0200		101	70.7-123	3.69	5.16	
Bromodichloromethane	0.019	0.0005	mg/L	0.0200		94.7	80.3-119	1.22	5.36	
Bromoform	0.020	0.0005	mg/L	0.0200		98.4	71.1-141	5.01	14.1	
Bromomethane	0.024	0.0005	mg/L	0.0200		121	55.1-143	0.457	21.5	
Carbon disulfide	0.041	0.001	mg/L	0.0400		102	53.6-147	1.05	20.3	
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		103	79.5-125	3.45	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		97.6	85.1-115	2.65	5.18	

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3062935 - Volatiles (Continued)

LCS Dup (3062935-BSD1) (Continued)

Prepared: 06/29/23 Analyzed: 06/30/23

Chloroethane	0.023	0.0005	mg/L	0.0200		114	36.9-159	0.262	24.1	
Chloroform	0.021	0.0005	mg/L	0.0200		103	80.9-119	1.96	5.15	
Chloromethane	0.023	0.0005	mg/L	0.0200		115	54.2-142	5.87	27	
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		98.6	73.8-128	1.02	5.73	
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.6	82.5-122	0.273	6.09	
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	83.1-124	0.297	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0258</i>		mg/L	<i>0.0250</i>		<i>103</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		100	77-118	0.652	5.75	
Dichlorodifluoromethane	0.019	0.0005	mg/L	0.0200		94.1	38.7-147	2.86	22.6	
Ethylbenzene	0.020	0.0005	mg/L	0.0200		97.8	70.2-130	1.49	4.83	
Hexachlorobutadiene	0.022	0.0005	mg/L	0.0200		108	78.9-148	4.32	18.4	
Iodomethane	0.041	0.001	mg/L	0.0400		103	63.5-135	1.59	24.3	
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		95.7	85-124	1.37	6.25	
m+p - Xylene	0.039	0.001	mg/L	0.0400		96.6	71.9-133	2.09	5.77	
Methyl tert-butyl ether	0.041	0.001	mg/L	0.0400		102	57.7-137	2.47	12.8	
Methylene chloride	0.024	0.0005	mg/L	0.0200		118	49.3-163	2.83	19.7	
Naphthalene	0.019	0.0005	mg/L	0.0200		97.1	62.1-141	2.84	33.5	
n-Butylbenzene	0.019	0.0005	mg/L	0.0200		96.2	75.4-132	3.62	10.1	
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		98.4	79.6-124	2.36	9.09	
o-Xylene	0.019	0.0005	mg/L	0.0200		93.4	69.4-132	2.49	6.29	
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		97.4	79.8-131	1.68	9.26	
sec-Butylbenzene	0.020	0.0005	mg/L	0.0200		100	77.6-133	0.991	9.85	
Styrene	0.019	0.0005	mg/L	0.0200		94.8	71.7-128	1.06	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		103	78.8-128	1.25	18.6	
Tetrachloroethene	0.018	0.0005	mg/L	0.0200		92.5	74.2-128	2.91	6.38	
Toluene	0.019	0.0005	mg/L	0.0200		94.5	68.1-127	1.39	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0249</i>		mg/L	<i>0.0250</i>		<i>99.5</i>	<i>87.1-110</i>			
Total Xylenes	0.057	0.001	mg/L	0.0600		95.5	71.6-132	2.22	5.83	
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		106	65.2-133	2.05	19.1	
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		94.4	84-123	3.33	6.26	
trans-1,4-Dichloro-2-butene	0.028	0.010	mg/L	0.0400		69.6	9.3-235	52.2	92.8	
Trichloroethene	0.019	0.0005	mg/L	0.0200		92.9	79.3-114	0.865	4.92	
Trichlorofluoromethane	0.026	0.0005	mg/L	0.0200		130	28.6-162	6.02	19.8	
Vinyl acetate	0.019	0.0005	mg/L	0.0200		94.0	50.9-135	2.15	7.84	
Vinyl chloride	0.021	0.0005	mg/L	0.0200		107	61.6-133	4.27	23	

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Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
07/06/23 08:31

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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(970) 247-4220
Fax: (970) 247-4227

service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2306-223Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☒ NoThermometer Used: 2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 2.7 °C Correction Factor: 0 °C Final Temp: 2.7 °C

* Temp should be above freezing to 6°C

Date/Initials of person
examining contents: MRN 6/22/23Labeled by Initials:
(if different than above) _____

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12. <u>Analysis only said Method 8260</u>
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/Resolution:

Person Contacted: Kyle SiesserDate/Time: 1008 6/22/23Comments/Resolution: MRN called Kyle to ask if Method 8260 was for a VOC or BTEX, Kyle confirmed it was for VOC.



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

27 September 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Mudge B #012R

Enclosed are the results of analyses for samples received by the laboratory on 09/20/23 16:30. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive, flowing style.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-17

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-23-16



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2309228-01	Water	09/20/23 11:35	09/20/23 16:30	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

MW #2

2309228-01 (Ground Water)

Sampled Date: 09/20/23 11:35

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Dichlorodifluoromethane	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Chloromethane	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Vinyl chloride	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Bromomethane	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Chloroethane	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Trichlorofluoromethane	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
1,1-Dichloroethene	<0.0005	0.0005	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
Carbon disulfide	<0.001	0.001	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
Iodomethane	<0.001	0.001	0.00006	mg/L	1	09/26/23 16:52	8260B		MS
Acrolein	<0.005	0.005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Methylene chloride	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Acetone	<0.010	0.010	0.0009	mg/L	1	09/26/23 16:52	8260B		MS
trans-1,2-Dichloroethene	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
Methyl tert-butyl ether	<0.001	0.001	0.00003	mg/L	1	09/26/23 16:52	8260B		MS
1,1-Dichloroethane	<0.0005	0.0005	0.00006	mg/L	1	09/26/23 16:52	8260B		MS
Acrylonitrile	<0.002	0.002	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
Vinyl acetate	<0.0005	0.0005	0.00008	mg/L	1	09/26/23 16:52	8260B		MS
cis-1,2-Dichloroethene	<0.0005	0.0005	0.0002	mg/L	1	09/26/23 16:52	8260B		MS
2,2-Dichloropropane	<0.0005	0.0005	0.0002	mg/L	1	09/26/23 16:52	8260B		MS
Bromochloromethane	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
Chloroform	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
Carbon tetrachloride	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
1,1,1-Trichloroethane	<0.0005	0.0005	0.00006	mg/L	1	09/26/23 16:52	8260B		MS
1,1-Dichloropropene	<0.0005	0.0005	0.0002	mg/L	1	09/26/23 16:52	8260B		MS
2-Butanone	<0.002	0.002	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Benzene	0.002	0.0005	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
1,2-Dichloroethane	<0.0005	0.0005	0.00005	mg/L	1	09/26/23 16:52	8260B		MS
Trichloroethene	<0.0005	0.0005	0.0002	mg/L	1	09/26/23 16:52	8260B		MS
Dibromomethane	<0.0005	0.0005	0.0002	mg/L	1	09/26/23 16:52	8260B		MS
1,2-Dichloropropane	<0.0005	0.0005	0.00007	mg/L	1	09/26/23 16:52	8260B		MS
Bromodichloromethane	<0.0005	0.0005	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
cis-1,3-Dichloropropene	<0.0005	0.0005	0.00009	mg/L	1	09/26/23 16:52	8260B		MS

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Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

MW #2**2309228-01 (Ground Water)****Sampled Date: 09/20/23 11:35**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**VOLATILES BY GC/MS**

Toluene	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
4-Methyl-2-pentanone	<0.001	0.001	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
Tetrachloroethene	<0.0005	0.0005	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
trans-1,3-Dichloropropene	<0.0005	0.0005	0.00005	mg/L	1	09/26/23 16:52	8260B		MS
1,1,2-Trichloroethane	<0.0005	0.0005	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
Dibromochloromethane	<0.0005	0.0005	0.00008	mg/L	1	09/26/23 16:52	8260B		MS
1,3-Dichloropropane	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
1,2-Dibromoethane	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
2-Hexanone	<0.001	0.001	0.0003	mg/L	1	09/26/23 16:52	8260B		MS
Chlorobenzene	<0.0005	0.0005	0.00003	mg/L	1	09/26/23 16:52	8260B		MS
Ethylbenzene	<0.0005	0.0005	0.00003	mg/L	1	09/26/23 16:52	8260B		MS
1,1,1,2-Tetrachloroethane	<0.0005	0.0005	0.00006	mg/L	1	09/26/23 16:52	8260B		MS
m+p - Xylene	<0.001	0.001	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
o-Xylene	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
Total Xylenes	<0.001	0.001	0.0002	mg/L	1	09/26/23 16:52	8260B		MS
Bromoform	<0.0005	0.0005	0.00006	mg/L	1	09/26/23 16:52	8260B		MS
Styrene	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
Isopropylbenzene	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
Bromobenzene	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
n-Propylbenzene	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
1,1,2,2-Tetrachloroethane	<0.0005	0.0005	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
2-Chlorotoluene	<0.0005	0.0005	0.00003	mg/L	1	09/26/23 16:52	8260B		MS
1,2,3-trichloropropane	<0.0005	0.0005	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
1,3,5-Trimethylbenzene	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
trans-1,4-Dichloro-2-butene	<0.010	0.010	0.0001	mg/L	1	09/26/23 16:52	8260B		MS
4-Chlorotoluene	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
tert-Butylbenzene	<0.0005	0.0005	0.00007	mg/L	1	09/26/23 16:52	8260B		MS
1,2,4-Trimethylbenzene	<0.0005	0.0005	0.00003	mg/L	1	09/26/23 16:52	8260B		MS
sec-Butylbenzene	<0.0005	0.0005	0.00001	mg/L	1	09/26/23 16:52	8260B		MS
p-Isopropyltoluene	<0.0005	0.0005	0.00004	mg/L	1	09/26/23 16:52	8260B		MS
1,3-Dichlorobenzene	<0.0005	0.0005	0.00002	mg/L	1	09/26/23 16:52	8260B		MS
1,4 Dichlorobenzene	<0.0005	0.0005	0.00003	mg/L	1	09/26/23 16:52	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

MW #2**2309228-01 (Ground Water)****Sampled Date: 09/20/23 11:35**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240**VOLATILES BY GC/MS**

n-Butylbenzene	<0.0005	0.0005	0.00006	mg/L	1	09/26/23 16:52	8260B		MS
1,2-Dichlorobenzene	<0.0005	0.0005	0.00005	mg/L	1	09/26/23 16:52	8260B		MS
1,2-Dibromo-3-chloropropane	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
Hexachlorobutadiene	<0.0005	0.0005	0.0005	mg/L	1	09/26/23 16:52	8260B		MS
1,2,4-Trichlorobenzene	<0.0005	0.0005	0.00007	mg/L	1	09/26/23 16:52	8260B		MS
Naphthalene	<0.0005	0.0005	0.00005	mg/L	1	09/26/23 16:52	8260B		MS
1,2,3-Trichlorobenzene	<0.0005	0.0005	0.0002	mg/L	1	09/26/23 16:52	8260B		MS
1,4-Dioxane	<0.010	0.010	0.010	mg/L	1	09/26/23 16:52	8260B		MS
<i>Surrogate: Dibromofluoromethane</i>			104 %	82.4-141		09/26/23 16:52	8260B		MS
<i>Surrogate: Toluene-d8</i>			107 %	87.1-110		09/26/23 16:52	8260B		MS
<i>Surrogate: 4-Bromofluorobenzene</i>			90.4 %	76.4-114		09/26/23 16:52	8260B		MS

Green Analytical Laboratories

Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles

Blank (3092519-BLK1)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.010	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L

Surrogate: 4-Bromofluorobenzene	0.0232		mg/L	0.0250	92.6	76.4-114
4-Chlorotoluene	ND	0.0005	mg/L			
4-Methyl-2-pentanone	ND	0.001	mg/L			
Acetone	ND	0.010	mg/L			
Acrolein	ND	0.005	mg/L			
Acrylonitrile	ND	0.002	mg/L			
Benzene	ND	0.0005	mg/L			
Bromobenzene	ND	0.0005	mg/L			
Bromochloromethane	ND	0.0005	mg/L			
Bromodichloromethane	ND	0.0005	mg/L			
Bromoform	ND	0.0005	mg/L			

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

Blank (3092519-BLK1) (Continued)

Prepared: 09/25/23 Analyzed: 09/26/23

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	ND	0.001	mg/L							
Carbon tetrachloride	ND	0.0005	mg/L							
Chlorobenzene	ND	0.0005	mg/L							
Chloroethane	ND	0.0005	mg/L							
Chloroform	ND	0.0005	mg/L							
Chloromethane	ND	0.0005	mg/L							
cis-1,2-Dichloroethene	ND	0.0005	mg/L							
cis-1,3-Dichloropropene	ND	0.0005	mg/L							
Dibromochloromethane	ND	0.0005	mg/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0246</i>		mg/L	<i>0.0250</i>		<i>98.5</i>	<i>82.4-141</i>			
Dibromomethane	ND	0.0005	mg/L							
Dichlorodifluoromethane	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Hexachlorobutadiene	ND	0.0005	mg/L							
Iodomethane	ND	0.001	mg/L							
Isopropylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Methyl tert-butyl ether	ND	0.001	mg/L							
Methylene chloride	ND	0.0005	mg/L							
Naphthalene	ND	0.0005	mg/L							
n-Butylbenzene	ND	0.0005	mg/L							
n-Propylbenzene	ND	0.0005	mg/L							
o-Xylene	ND	0.0005	mg/L							
p-Isopropyltoluene	ND	0.0005	mg/L							
sec-Butylbenzene	ND	0.0005	mg/L							
Styrene	ND	0.0005	mg/L							
tert-Butylbenzene	ND	0.0005	mg/L							
Tetrachloroethene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
<i>Surrogate: Toluene-d8</i>	<i>0.0265</i>		mg/L	<i>0.0250</i>		<i>106</i>	<i>87.1-110</i>			
Total Xylenes	ND	0.001	mg/L							
trans-1,2-Dichloroethene	ND	0.0005	mg/L							
trans-1,3-Dichloropropene	ND	0.0005	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L							
Trichloroethene	ND	0.0005	mg/L							
Trichlorofluoromethane	ND	0.0005	mg/L							
Vinyl acetate	ND	0.0005	mg/L							
Vinyl chloride	ND	0.0005	mg/L							

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

LCS (3092519-BS1)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		90.2	82.4-120			
1,1,1-Trichloroethane	0.017	0.0005	mg/L	0.0200		86.8	80.7-121			
1,1,2,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		100	76.5-121			
1,1,2-Trichloroethane	0.020	0.0005	mg/L	0.0200		99.9	81.7-118			
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		95.4	74.8-123			
1,1-Dichloroethene	0.021	0.0005	mg/L	0.0200		107	53.9-149			
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		88.2	85.9-115			
1,2,3-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		84.0	76.1-134			
1,2,4-Trichlorobenzene	0.016	0.0005	mg/L	0.0200		82.0	72.4-136			
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		95.9	67.4-138			
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		88.2	71.7-124			
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		95.0	84.9-116			
1,2-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		89.6	82.5-119			
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	72.5-123			
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		93.4	79.4-117			
1,3,5-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		101	69-137			
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		93.1	84.4-120			
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		91.8	82.6-117			
1,4 Dichlorobenzene	0.019	0.0005	mg/L	0.0200		92.6	81.7-118			
1,4-Dioxane	0.422	0.010	mg/L	0.400		105	-34.6-193			
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		108	44.7-168			
2,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	62.9-136			
2-Butanone	0.040	0.002	mg/L	0.0400		99.0	24.1-159			
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		90.7	80.2-121			
2-Hexanone	0.041	0.001	mg/L	0.0400		102	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0252		mg/L	0.0250		101	76.4-114			
4-Chlorotoluene	0.020	0.0005	mg/L	0.0200		97.8	82.2-125			
4-Methyl-2-pentanone	0.043	0.001	mg/L	0.0400		107	60.7-139			
Acetone	0.050	0.010	mg/L	0.0400		126	39.1-168			
Acrolein	0.500	0.005	mg/L	0.200		250	26.6-161			BS1
Acrylonitrile	0.042	0.002	mg/L	0.0400		106	64.9-135			
Benzene	0.019	0.0005	mg/L	0.0200		94.3	69.4-129			
Bromobenzene	0.016	0.0005	mg/L	0.0200		82.4	83.5-115			BS2
Bromochloromethane	0.020	0.0005	mg/L	0.0200		100	70.7-123			
Bromodichloromethane	0.019	0.0005	mg/L	0.0200		94.6	80.3-119			
Bromoform	0.017	0.0005	mg/L	0.0200		84.4	71.1-141			
Bromomethane	0.021	0.0005	mg/L	0.0200		103	55.1-143			
Carbon disulfide	0.048	0.001	mg/L	0.0400		121	53.6-147			
Carbon tetrachloride	0.017	0.0005	mg/L	0.0200		83.7	79.5-125			

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

LCS (3092519-BS1) (Continued)

Prepared: 09/25/23 Analyzed: 09/26/23

Chlorobenzene	0.017	0.0005	mg/L	0.0200		86.6	85.1-115			
Chloroethane	0.025	0.0005	mg/L	0.0200		123	36.9-159			
Chloroform	0.020	0.0005	mg/L	0.0200		98.2	80.9-119			
Chloromethane	0.017	0.0005	mg/L	0.0200		86.4	54.2-142			
cis-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		97.4	73.8-128			
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		88.8	82.5-122			
Dibromochloromethane	0.018	0.0005	mg/L	0.0200		89.4	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0234</i>		mg/L	<i>0.0250</i>		<i>93.4</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		101	77-118			
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		98.2	38.7-147			
Ethylbenzene	0.018	0.0005	mg/L	0.0200		91.0	70.2-130			
Hexachlorobutadiene	0.017	0.0005	mg/L	0.0200		84.0	78.9-148			
Iodomethane	0.040	0.001	mg/L	0.0400		99.1	63.5-135			
Isopropylbenzene	0.018	0.0005	mg/L	0.0200		90.7	85-124			
m+p - Xylene	0.039	0.001	mg/L	0.0400		97.0	71.9-133			
Methyl tert-butyl ether	0.043	0.001	mg/L	0.0400		107	57.7-137			
Methylene chloride	0.023	0.0005	mg/L	0.0200		115	49.3-163			
Naphthalene	0.019	0.0005	mg/L	0.0200		94.3	62.1-141			
n-Butylbenzene	0.018	0.0005	mg/L	0.0200		92.0	75.4-132			
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		97.8	79.6-124			
o-Xylene	0.019	0.0005	mg/L	0.0200		92.6	69.4-132			
p-Isopropyltoluene	0.018	0.0005	mg/L	0.0200		89.4	79.8-131			
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		93.4	77.6-133			
Styrene	0.018	0.0005	mg/L	0.0200		89.3	71.7-128			
tert-Butylbenzene	0.020	0.0005	mg/L	0.0200		98.3	78.8-128			
Tetrachloroethene	0.017	0.0005	mg/L	0.0200		82.8	74.2-128			
Toluene	0.019	0.0005	mg/L	0.0200		92.9	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0246</i>		mg/L	<i>0.0250</i>		<i>98.5</i>	<i>87.1-110</i>			
Total Xylenes	0.057	0.001	mg/L	0.0600		95.6	71.6-132			
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		107	65.2-133			
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		103	84-123			
trans-1,4-Dichloro-2-butene	0.066	0.010	mg/L	0.0400		166	9.3-235			
Trichloroethene	0.019	0.0005	mg/L	0.0200		95.6	79.3-114			
Trichlorofluoromethane	0.012	0.0005	mg/L	0.0200		58.8	28.6-162			
Vinyl acetate	0.027	0.0005	mg/L	0.0200		134	50.9-135			
Vinyl chloride	0.020	0.0005	mg/L	0.0200		98.7	61.6-133			

LCS Dup (3092519-BSD1)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.6	82.4-120	8.95	6.88	QR-04
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Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3092519 - Volatiles (Continued)

LCS Dup (3092519-BSD1) (Continued)

Prepared: 09/25/23 Analyzed: 09/26/23

1,1,1-Trichloroethane	0.018	0.0005	mg/L	0.0200		91.0	80.7-121	4.84	7.43	
1,1,2,2-Tetrachloroethane	0.022	0.0005	mg/L	0.0200		112	76.5-121	10.9	8.68	QR-04
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		104	81.7-118	4.12	6.82	
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		100	74.8-123	4.66	4.3	QR-04
1,1-Dichloroethene	0.022	0.0005	mg/L	0.0200		112	53.9-149	4.58	16.5	
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.2	85.9-115	3.40	5.47	
1,2,3-Trichlorobenzene	0.018	0.0005	mg/L	0.0200		88.8	76.1-134	5.55	43	
1,2,4-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		86.2	72.4-136	5.06	22.3	
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		103	67.4-138	7.48	8.94	
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		89.5	71.7-124	1.52	15.1	
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		102	84.9-116	7.11	5.83	QR-04
1,2-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		97.1	82.5-119	8.03	8.72	
1,2-Dichloroethane	0.022	0.0005	mg/L	0.0200		108	72.5-123	5.99	8.94	
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		97.2	79.4-117	4.09	5.51	
1,3,5-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		110	69-137	8.12	16.5	
1,3-Dichlorobenzene	0.020	0.0005	mg/L	0.0200		99.8	84.4-120	6.95	9	
1,3-Dichloropropane	0.020	0.0005	mg/L	0.0200		98.6	82.6-117	7.25	6.06	QR-04
1,4 Dichlorobenzene	0.020	0.0005	mg/L	0.0200		101	81.7-118	8.23	7.71	QR-04
1,4-Dioxane	0.435	0.010	mg/L	0.400		109	-34.6-193	3.11	35.2	
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		109	44.7-168	0.784	49.2	
2,2-Dichloropropane	0.022	0.0005	mg/L	0.0200		112	62.9-136	4.48	9.62	
2-Butanone	0.043	0.002	mg/L	0.0400		108	24.1-159	8.63	14.2	
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		100	80.2-121	9.81	8.62	QR-04
2-Hexanone	0.043	0.001	mg/L	0.0400		107	56.3-139	4.74	7.28	
Surrogate: 4-Bromofluorobenzene	0.0249		mg/L	0.0250		99.6	76.4-114			
4-Chlorotoluene	0.021	0.0005	mg/L	0.0200		104	82.2-125	5.91	15.5	
4-Methyl-2-pentanone	0.046	0.001	mg/L	0.0400		115	60.7-139	7.23	7.57	
Acetone	0.053	0.010	mg/L	0.0400		132	39.1-168	4.43	30.5	
Acrolein	0.490	0.005	mg/L	0.200		245	26.6-161	1.89	22.4	BS1
Acrylonitrile	0.044	0.002	mg/L	0.0400		109	64.9-135	3.37	7.62	
Benzene	0.020	0.0005	mg/L	0.0200		101	69.4-129	7.16	4.16	QR-04
Bromobenzene	0.018	0.0005	mg/L	0.0200		89.2	83.5-115	7.92	8.41	
Bromochloromethane	0.021	0.0005	mg/L	0.0200		105	70.7-123	4.24	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		99.5	80.3-119	5.00	5.36	
Bromoform	0.017	0.0005	mg/L	0.0200		85.0	71.1-141	0.767	14.1	
Bromomethane	0.021	0.0005	mg/L	0.0200		105	55.1-143	1.49	21.5	
Carbon disulfide	0.049	0.001	mg/L	0.0400		123	53.6-147	1.93	20.3	
Carbon tetrachloride	0.018	0.0005	mg/L	0.0200		88.6	79.5-125	5.74	11.4	
Chlorobenzene	0.018	0.0005	mg/L	0.0200		92.0	85.1-115	5.99	5.18	QR-04

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3092519 - Volatiles (Continued)										
LCS Dup (3092519-BSD1) (Continued)										
Prepared: 09/25/23 Analyzed: 09/26/23										
Chloroethane	0.025	0.0005	mg/L	0.0200		127	36.9-159	3.68	24.1	
Chloroform	0.020	0.0005	mg/L	0.0200		102	80.9-119	3.40	5.15	
Chloromethane	0.020	0.0005	mg/L	0.0200		97.6	54.2-142	12.2	27	
cis-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		104	73.8-128	7.03	5.73	QR-04
cis-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.8	82.5-122	8.62	6.09	QR-04
Dibromochloromethane	0.018	0.0005	mg/L	0.0200		88.0	83.1-124	1.52	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0229</i>		mg/L	<i>0.0250</i>		<i>91.6</i>	<i>82.4-141</i>			
Dibromomethane	0.021	0.0005	mg/L	0.0200		105	77-118	4.04	5.75	
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		100	38.7-147	2.26	22.6	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		95.8	70.2-130	5.14	4.83	QR-04
Hexachlorobutadiene	0.018	0.0005	mg/L	0.0200		87.8	78.9-148	4.36	18.4	
Iodomethane	0.041	0.001	mg/L	0.0400		102	63.5-135	3.01	24.3	
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		95.9	85-124	5.57	6.25	
m+p - Xylene	0.041	0.001	mg/L	0.0400		102	71.9-133	5.00	5.77	
Methyl tert-butyl ether	0.044	0.001	mg/L	0.0400		111	57.7-137	3.37	12.8	
Methylene chloride	0.022	0.0005	mg/L	0.0200		109	49.3-163	5.37	19.7	
Naphthalene	0.020	0.0005	mg/L	0.0200		98.2	62.1-141	4.05	33.5	
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		99.6	75.4-132	7.94	10.1	
n-Propylbenzene	0.022	0.0005	mg/L	0.0200		108	79.6-124	9.91	9.09	QR-04
o-Xylene	0.020	0.0005	mg/L	0.0200		100	69.4-132	7.73	6.29	QR-04
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		96.8	79.8-131	7.95	9.26	
sec-Butylbenzene	0.020	0.0005	mg/L	0.0200		102	77.6-133	8.80	9.85	
Styrene	0.018	0.0005	mg/L	0.0200		91.4	71.7-128	2.38	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		107	78.8-128	8.52	18.6	
Tetrachloroethene	0.017	0.0005	mg/L	0.0200		87.2	74.2-128	5.18	6.38	
Toluene	0.020	0.0005	mg/L	0.0200		99.9	68.1-127	7.26	5.67	QR-04
<i>Surrogate: Toluene-d8</i>	<i>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.8</i>	<i>87.1-110</i>			
Total Xylenes	0.061	0.001	mg/L	0.0600		101	71.6-132	5.89	5.83	QR-04
trans-1,2-Dichloroethene	0.021	0.0005	mg/L	0.0200		106	65.2-133	1.55	19.1	
trans-1,3-Dichloropropene	0.021	0.0005	mg/L	0.0200		106	84-123	2.39	6.26	
trans-1,4-Dichloro-2-butene	0.057	0.010	mg/L	0.0400		142	9.3-235	15.8	92.8	
Trichloroethene	0.021	0.0005	mg/L	0.0200		104	79.3-114	8.18	4.92	QR-04
Trichlorofluoromethane	0.013	0.0005	mg/L	0.0200		66.0	28.6-162	11.6	19.8	
Vinyl acetate	0.028	0.0005	mg/L	0.0200		140	50.9-135	4.19	7.84	BS1
Vinyl chloride	0.020	0.0005	mg/L	0.0200		101	61.6-133	2.70	23	

Green Analytical Laboratories

Veronica Wells, Project Manager

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
09/27/23 16:11

Notes and Definitions

QR-04 The RPD for the BS/BSD was outside of historical limits.

BS2 Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.

BS1 Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
 *Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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(970) 247-4220 service@greenanalytical.com or dzufelt@greenanalytical.com
(970) 247-4227 Fax: 75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2309-128Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☒ NoThermometer Used: 2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 20.0 °C Correction Factor: 7 °C Final Temp: 20.0 °C

* Temp should be above freezing to 6°C

Date/Initials of person examining contents: 9/24/23
GALabeled by Initials: _____
(If different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	<u>WT</u> ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☐ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☐ N/A	

Client Notification/Resolution:

Person Contacted: Kyle SiesserDate/Time: 9/21/23 11:21amComments/Resolution: UPN called to verify analysis for Method 8260.
K.S. said it is for VOCs.



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
jeremy.allen@greenanalytical.com

27 December 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Mudge B #012R

Enclosed are the results of analyses for samples received by the laboratory on 12/14/23 16:40. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Veronica J. Wells'. The signature is written in a cursive style with a light blue background.

Veronica Wells
Project Manager

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-18

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-23-16

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2312132-01	Water	12/14/23 15:25	12/14/23 16:40	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

MW #2

2312132-01 (Ground Water)

Sampled Date: 12/14/23 15:25

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

1,1,1,2-Tetrachloroethane*	<0.0005	0.0005	0.00006	mg/L	1	12/21/23 18:14	8260B		MS
1,1,1-Trichloroethane*	<0.0005	0.0005	0.00006	mg/L	1	12/21/23 18:14	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.0005	0.0005	0.00006	mg/L	1	12/21/23 18:14	8260B		MS
1,1,2-Trichloroethane*	<0.0005	0.0005	0.00006	mg/L	1	12/21/23 18:14	8260B		MS
1,1-Dichloroethane*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
1,1-Dichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
1,1-Dichloropropene*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
1,2,3-Trichlorobenzene*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
1,2,4-Trichlorobenzene*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
1,2,4-Trimethylbenzene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
1,2-Dibromoethane*	<0.0005	0.0005	0.00009	mg/L	1	12/21/23 18:14	8260B		MS
1,2-Dichlorobenzene*	<0.0005	0.0005	0.00007	mg/L	1	12/21/23 18:14	8260B		MS
1,2-Dichloroethane*	<0.0005	0.0005	0.00006	mg/L	1	12/21/23 18:14	8260B		MS
1,2-Dichloropropane*	<0.0005	0.0005	0.00008	mg/L	1	12/21/23 18:14	8260B		MS
1,3,5-Trimethylbenzene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
1,3-Dichlorobenzene*	<0.0005	0.0005	0.00005	mg/L	1	12/21/23 18:14	8260B		MS
1,3-Dichloropropane*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
1,4 Dichlorobenzene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
1,4-Dioxane	<0.010	0.010	0.010	mg/L	1	12/21/23 18:14	8260B		MS
1,2,3-trichloropropane*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
2,2-Dichloropropane*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
2-Butanone*	<0.002	0.002	0.002	mg/L	1	12/21/23 18:14	8260B		MS
2-Chlorotoluene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
2-Hexanone*	<0.001	0.001	0.0003	mg/L	1	12/21/23 18:14	8260B		MS
4-Chlorotoluene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
4-Methyl-2-pentanone*	<0.001	0.001	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
Acetone*	<0.010	0.010	0.0009	mg/L	1	12/21/23 18:14	8260B		MS
Acrolein*	<0.005	0.005	0.001	mg/L	1	12/21/23 18:14	8260B		MS
Acrylonitrile*	<0.002	0.002	0.0008	mg/L	1	12/21/23 18:14	8260B		MS
Benzene*	0.003	0.0005	0.00005	mg/L	1	12/21/23 18:14	8260B		MS
Bromobenzene*	<0.0005	0.0005	0.00006	mg/L	1	12/21/23 18:14	8260B		MS

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

MW #2

2312132-01 (Ground Water)

Sampled Date: 12/14/23 15:25

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Bromochloromethane*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
Bromodichloromethane*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
Bromoform*	<0.0005	0.0005	0.00009	mg/L	1	12/21/23 18:14	8260B		MS
Bromomethane*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
Carbon disulfide*	<0.001	0.001	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
Carbon tetrachloride*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
Chlorobenzene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
Chloroethane*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
Chloroform*	<0.0005	0.0005	0.00002	mg/L	1	12/21/23 18:14	8260B		MS
Chloromethane*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
cis-1,2-Dichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
cis-1,3-Dichloropropene*	<0.0005	0.0005	0.00009	mg/L	1	12/21/23 18:14	8260B		MS
Dibromochloromethane*	<0.0005	0.0005	0.00008	mg/L	1	12/21/23 18:14	8260B		MS
Dibromomethane*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
Dichlorodifluoromethane*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
Ethylbenzene*	<0.0005	0.0005	0.00003	mg/L	1	12/21/23 18:14	8260B		MS
Hexachlorobutadiene*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
Iodomethane	<0.001	0.001	0.00006	mg/L	1	12/21/23 18:14	8260B		MS
Isopropylbenzene*	<0.0005	0.0005	0.00002	mg/L	1	12/21/23 18:14	8260B		MS
m+p - Xylene*	<0.001	0.001	0.00008	mg/L	1	12/21/23 18:14	8260B		MS
Methyl tert-butyl ether	<0.001	0.001	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
Methylene chloride*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
Naphthalene*	<0.0005	0.0005	0.00008	mg/L	1	12/21/23 18:14	8260B		MS
n-Butylbenzene*	<0.0005	0.0005	0.00007	mg/L	1	12/21/23 18:14	8260B		MS
n-Propylbenzene*	<0.0005	0.0005	0.00005	mg/L	1	12/21/23 18:14	8260B		MS
o-Xylene*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
p-Isopropyltoluene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
sec-Butylbenzene*	<0.0005	0.0005	0.00004	mg/L	1	12/21/23 18:14	8260B		MS
Styrene*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
tert-Butylbenzene*	<0.0005	0.0005	0.00007	mg/L	1	12/21/23 18:14	8260B		MS
Tetrachloroethene*	<0.0005	0.0005	0.00009	mg/L	1	12/21/23 18:14	8260B		MS
Toluene*	<0.0005	0.0005	0.00008	mg/L	1	12/21/23 18:14	8260B		MS

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

MW #2

2312132-01 (Ground Water)
Sampled Date: 12/14/23 15:25

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Total Xylenes*	<0.001	0.001	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
trans-1,2-Dichloroethene*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
trans-1,3-Dichloropropene*	<0.0005	0.0005	0.00005	mg/L	1	12/21/23 18:14	8260B		MS
trans-1,4-Dichloro-2-butene	<0.010	0.010	0.0003	mg/L	1	12/21/23 18:14	8260B		MS
Trichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	12/21/23 18:14	8260B		MS
Trichlorofluoromethane*	<0.0005	0.0005	0.0001	mg/L	1	12/21/23 18:14	8260B		MS
Vinyl acetate*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
Vinyl chloride*	<0.0005	0.0005	0.0005	mg/L	1	12/21/23 18:14	8260B		MS
Surrogate: 4-Bromofluorobenzene			93.5 %	76.4-114		12/21/23 18:14	8260B		MS
Surrogate: Dibromofluoromethane			107 %	82.4-141		12/21/23 18:14	8260B		MS
Surrogate: Toluene-d8			106 %	87.1-110		12/21/23 18:14	8260B		MS

Green Analytical Laboratories

Veronica J. Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 3122038 - Volatiles

Blank (3122038-BLK1)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.010	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L

Surrogate: 4-Bromofluorobenzene	0.0224		mg/L	0.0250	89.4	76.4-114
4-Chlorotoluene	ND	0.0005	mg/L			
4-Methyl-2-pentanone	ND	0.001	mg/L			
Acetone	ND	0.010	mg/L			
Acrolein	ND	0.005	mg/L			
Acrylonitrile	ND	0.002	mg/L			
Benzene	ND	0.0005	mg/L			
Bromobenzene	ND	0.0005	mg/L			
Bromochloromethane	ND	0.0005	mg/L			
Bromodichloromethane	ND	0.0005	mg/L			
Bromoform	ND	0.0005	mg/L			

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Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

Blank (3122038-BLK1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

Bromomethane	ND	0.0005	mg/L
Carbon disulfide	ND	0.001	mg/L
Carbon tetrachloride	ND	0.0005	mg/L
Chlorobenzene	ND	0.0005	mg/L
Chloroethane	ND	0.0005	mg/L
Chloroform	ND	0.0005	mg/L
Chloromethane	ND	0.0005	mg/L
cis-1,2-Dichloroethene	ND	0.0005	mg/L
cis-1,3-Dichloropropene	ND	0.0005	mg/L
Dibromochloromethane	ND	0.0005	mg/L

Surrogate: Dibromofluoromethane 0.0285 mg/L 0.0250 114 82.4-141

Dibromomethane	ND	0.0005	mg/L
Dichlorodifluoromethane	ND	0.0005	mg/L
Ethylbenzene	ND	0.0005	mg/L
Hexachlorobutadiene	ND	0.0005	mg/L
Iodomethane	ND	0.001	mg/L
Isopropylbenzene	ND	0.0005	mg/L
m+p - Xylene	ND	0.001	mg/L
Methyl tert-butyl ether	ND	0.001	mg/L
Methylene chloride	ND	0.0005	mg/L
Naphthalene	ND	0.0005	mg/L
n-Butylbenzene	ND	0.0005	mg/L
n-Propylbenzene	ND	0.0005	mg/L
o-Xylene	ND	0.0005	mg/L
p-Isopropyltoluene	ND	0.0005	mg/L
sec-Butylbenzene	ND	0.0005	mg/L
Styrene	ND	0.0005	mg/L
tert-Butylbenzene	ND	0.0005	mg/L
Tetrachloroethene	ND	0.0005	mg/L
Toluene	ND	0.0005	mg/L

Surrogate: Toluene-d8 0.0249 mg/L 0.0250 99.8 87.1-110

Total Xylenes	ND	0.001	mg/L
trans-1,2-Dichloroethene	ND	0.0005	mg/L
trans-1,3-Dichloropropene	ND	0.0005	mg/L
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L
Trichloroethene	ND	0.0005	mg/L
Trichlorofluoromethane	ND	0.0005	mg/L
Vinyl acetate	ND	0.0005	mg/L
Vinyl chloride	ND	0.0005	mg/L

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Veronica J. Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS (3122038-BS1)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		101	82.4-120		
1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		102	80.7-121		
1,1,2,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		88.3	76.5-121		
1,1,2-Trichloroethane	0.019	0.0005	mg/L	0.0200		96.5	81.7-118		
1,1-Dichloroethane	0.020	0.0005	mg/L	0.0200		97.6	74.8-123		
1,1-Dichloroethene	0.025	0.0005	mg/L	0.0200		124	53.9-149		
1,1-Dichloropropene	0.021	0.0005	mg/L	0.0200		103	85.9-115		
1,2,3-Trichlorobenzene	0.021	0.0005	mg/L	0.0200		103	76.1-134		
1,2,4-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		101	72.4-136		
1,2,4-Trimethylbenzene	0.021	0.0005	mg/L	0.0200		105	67.4-138		
1,2-Dibromo-3-chloropropane	0.016	0.0005	mg/L	0.0200		81.2	71.7-124		
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		94.8	84.9-116		
1,2-Dichlorobenzene	0.022	0.0005	mg/L	0.0200		110	82.5-119		
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		97.6	72.5-123		
1,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		107	79.4-117		
1,3,5-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		112	69-137		
1,3-Dichlorobenzene	0.023	0.0005	mg/L	0.0200		115	84.4-120		
1,3-Dichloropropane	0.019	0.0005	mg/L	0.0200		95.4	82.6-117		
1,4 Dichlorobenzene	0.020	0.0005	mg/L	0.0200		101	81.7-118		
1,4-Dioxane	0.397	0.010	mg/L	0.400		99.2	-34.6-193		
1,2,3-trichloropropane	0.018	0.0005	mg/L	0.0200		91.6	44.7-168		
2,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		100	62.9-136		
2-Butanone	0.038	0.002	mg/L	0.0400		95.2	24.1-159		
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		102	80.2-121		
2-Hexanone	0.032	0.001	mg/L	0.0400		80.5	56.3-139		
Surrogate: 4-Bromofluorobenzene	0.0256		mg/L	0.0250		102	76.4-114		
4-Chlorotoluene	0.022	0.0005	mg/L	0.0200		108	82.2-125		
4-Methyl-2-pentanone	0.029	0.001	mg/L	0.0400		73.2	60.7-139		
Acetone	0.037	0.010	mg/L	0.0400		91.9	39.1-168		
Acrolein	0.234	0.005	mg/L	0.200		117	26.6-161		
Acrylonitrile	0.033	0.002	mg/L	0.0400		81.4	64.9-135		
Benzene	0.022	0.0005	mg/L	0.0200		110	69.4-129		
Bromobenzene	0.022	0.0005	mg/L	0.0200		108	83.5-115		
Bromochloromethane	0.020	0.0005	mg/L	0.0200		101	70.7-123		
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		102	80.3-119		
Bromoform	0.019	0.0005	mg/L	0.0200		97.1	71.1-141		
Bromomethane	0.023	0.0005	mg/L	0.0200		114	55.1-143		
Carbon disulfide	0.038	0.001	mg/L	0.0400		94.6	53.6-147		
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		105	79.5-125		

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Veronica J. Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS (3122038-BS1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

Chlorobenzene	0.020	0.0005	mg/L	0.0200		100	85.1-115			
Chloroethane	0.024	0.0005	mg/L	0.0200		118	36.9-159			
Chloroform	0.017	0.0005	mg/L	0.0200		84.4	80.9-119			
Chloromethane	0.017	0.0005	mg/L	0.0200		83.4	54.2-142			
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		101	73.8-128			
cis-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		92.9	82.5-122			
Dibromochloromethane	0.021	0.0005	mg/L	0.0200		103	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0243</i>		mg/L	<i>0.0250</i>		<i>97.2</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		93.6	77-118			
Dichlorodifluoromethane	0.021	0.0005	mg/L	0.0200		103	38.7-147			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		97.0	70.2-130			
Hexachlorobutadiene	0.024	0.0005	mg/L	0.0200		120	78.9-148			
Iodomethane	0.039	0.001	mg/L	0.0400		96.8	63.5-135			
Isopropylbenzene	0.021	0.0005	mg/L	0.0200		104	85-124			
m+p - Xylene	0.040	0.001	mg/L	0.0400		100	71.9-133			
Methyl tert-butyl ether	0.039	0.001	mg/L	0.0400		97.5	57.7-137			
Methylene chloride	0.021	0.0005	mg/L	0.0200		103	49.3-163			
Naphthalene	0.019	0.0005	mg/L	0.0200		94.0	62.1-141			
n-Butylbenzene	0.021	0.0005	mg/L	0.0200		107	75.4-132			
n-Propylbenzene	0.020	0.0005	mg/L	0.0200		98.5	79.6-124			
o-Xylene	0.019	0.0005	mg/L	0.0200		96.0	69.4-132			
p-Isopropyltoluene	0.020	0.0005	mg/L	0.0200		101	79.8-131			
sec-Butylbenzene	0.022	0.0005	mg/L	0.0200		110	77.6-133			
Styrene	0.020	0.0005	mg/L	0.0200		100	71.7-128			
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		107	78.8-128			
Tetrachloroethene	0.021	0.0005	mg/L	0.0200		106	74.2-128			
Toluene	0.019	0.0005	mg/L	0.0200		97.4	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.7</i>	<i>87.1-110</i>			
Total Xylenes	0.059	0.001	mg/L	0.0600		98.8	71.6-132			
trans-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		98.5	65.2-133			
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.8	84-123			
trans-1,4-Dichloro-2-butene	0.030	0.010	mg/L	0.0400		75.9	9.3-235			
Trichloroethene	0.020	0.0005	mg/L	0.0200		100	79.3-114			
Trichlorofluoromethane	0.022	0.0005	mg/L	0.0200		109	28.6-162			
Vinyl acetate	0.018	0.0005	mg/L	0.0200		88.6	50.9-135			
Vinyl chloride	0.023	0.0005	mg/L	0.0200		117	61.6-133			

LCS Dup (3122038-BSD1)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		97.6	82.4-120	2.98	6.88	
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Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS Dup (3122038-BSD1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		99.4	80.7-121	2.19	7.43	
1,1,2,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		100	76.5-121	12.7	8.68	QR-04
1,1,2-Trichloroethane	0.021	0.0005	mg/L	0.0200		103	81.7-118	6.18	6.82	
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		94.9	74.8-123	2.86	4.3	
1,1-Dichloroethene	0.022	0.0005	mg/L	0.0200		109	53.9-149	13.0	16.5	
1,1-Dichloropropene	0.020	0.0005	mg/L	0.0200		99.3	85.9-115	3.51	5.47	
1,2,3-Trichlorobenzene	0.020	0.0005	mg/L	0.0200		102	76.1-134	0.438	43	
1,2,4-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		95.9	72.4-136	5.33	22.3	
1,2,4-Trimethylbenzene	0.020	0.0005	mg/L	0.0200		102	67.4-138	2.76	8.94	
1,2-Dibromo-3-chloropropane	0.020	0.0005	mg/L	0.0200		102	71.7-124	23.2	15.1	QR-04
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		101	84.9-116	5.98	5.83	QR-04
1,2-Dichlorobenzene	0.022	0.0005	mg/L	0.0200		109	82.5-119	0.774	8.72	
1,2-Dichloroethane	0.020	0.0005	mg/L	0.0200		101	72.5-123	3.92	8.94	
1,2-Dichloropropane	0.021	0.0005	mg/L	0.0200		104	79.4-117	3.42	5.51	
1,3,5-Trimethylbenzene	0.022	0.0005	mg/L	0.0200		108	69-137	3.47	16.5	
1,3-Dichlorobenzene	0.022	0.0005	mg/L	0.0200		112	84.4-120	2.43	9	
1,3-Dichloropropane	0.020	0.0005	mg/L	0.0200		98.6	82.6-117	3.40	6.06	
1,4 Dichlorobenzene	0.020	0.0005	mg/L	0.0200		99.2	81.7-118	1.45	7.71	
1,4-Dioxane	0.548	0.010	mg/L	0.400		137	-34.6-193	32.0	35.2	
1,2,3-trichloropropane	0.022	0.0005	mg/L	0.0200		108	44.7-168	16.3	49.2	
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		96.6	62.9-136	3.46	9.62	
2-Butanone	0.045	0.002	mg/L	0.0400		111	24.1-159	15.6	14.2	QR-04
2-Chlorotoluene	0.020	0.0005	mg/L	0.0200		100	80.2-121	2.32	8.62	
2-Hexanone	0.046	0.001	mg/L	0.0400		116	56.3-139	35.9	7.28	QR-04
Surrogate: 4-Bromofluorobenzene	0.0255		mg/L	0.0250		102	76.4-114			
4-Chlorotoluene	0.021	0.0005	mg/L	0.0200		105	82.2-125	2.45	15.5	
4-Methyl-2-pentanone	0.040	0.001	mg/L	0.0400		101	60.7-139	31.5	7.57	QR-04
Acetone	0.046	0.010	mg/L	0.0400		115	39.1-168	22.2	30.5	
Acrolein	0.261	0.005	mg/L	0.200		131	26.6-161	10.9	22.4	
Acrylonitrile	0.044	0.002	mg/L	0.0400		109	64.9-135	29.2	7.62	QR-04
Benzene	0.021	0.0005	mg/L	0.0200		106	69.4-129	2.96	4.16	
Bromobenzene	0.021	0.0005	mg/L	0.0200		105	83.5-115	2.59	8.41	
Bromochloromethane	0.020	0.0005	mg/L	0.0200		98.8	70.7-123	2.50	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		101	80.3-119	1.33	5.36	
Bromoform	0.019	0.0005	mg/L	0.0200		97.4	71.1-141	0.308	14.1	
Bromomethane	0.022	0.0005	mg/L	0.0200		111	55.1-143	3.29	21.5	
Carbon disulfide	0.037	0.001	mg/L	0.0400		93.3	53.6-147	1.38	20.3	
Carbon tetrachloride	0.020	0.0005	mg/L	0.0200		100	79.5-125	4.44	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		99.0	85.1-115	1.45	5.18	

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Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3122038 - Volatiles (Continued)

LCS Dup (3122038-BSD1) (Continued)

Prepared: 12/20/23 Analyzed: 12/21/23

Chloroethane	0.022	0.0005	mg/L	0.0200		112	36.9-159	5.11	24.1	
Chloroform	0.019	0.0005	mg/L	0.0200		94.3	80.9-119	11.1	5.15	QR-04
Chloromethane	0.016	0.0005	mg/L	0.0200		79.3	54.2-142	5.04	27	
cis-1,2-Dichloroethene	0.020	0.0005	mg/L	0.0200		99.1	73.8-128	1.95	5.73	
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		90.8	82.5-122	2.34	6.09	
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		97.8	83.1-124	5.57	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0254</i>		mg/L	<i>0.0250</i>		<i>102</i>	<i>82.4-141</i>			
Dibromomethane	0.020	0.0005	mg/L	0.0200		98.8	77-118	5.46	5.75	
Dichlorodifluoromethane	0.020	0.0005	mg/L	0.0200		97.5	38.7-147	5.15	22.6	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		94.6	70.2-130	2.51	4.83	
Hexachlorobutadiene	0.020	0.0005	mg/L	0.0200		100	78.9-148	17.9	18.4	
Iodomethane	0.037	0.001	mg/L	0.0400		92.2	63.5-135	4.84	24.3	
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		99.6	85-124	4.13	6.25	
m+p - Xylene	0.039	0.001	mg/L	0.0400		97.0	71.9-133	3.14	5.77	
Methyl tert-butyl ether	0.041	0.001	mg/L	0.0400		103	57.7-137	5.27	12.8	
Methylene chloride	0.021	0.0005	mg/L	0.0200		105	49.3-163	1.49	19.7	
Naphthalene	0.022	0.0005	mg/L	0.0200		108	62.1-141	13.9	33.5	
n-Butylbenzene	0.020	0.0005	mg/L	0.0200		99.9	75.4-132	7.24	10.1	
n-Propylbenzene	0.019	0.0005	mg/L	0.0200		94.8	79.6-124	3.83	9.09	
o-Xylene	0.019	0.0005	mg/L	0.0200		92.8	69.4-132	3.44	6.29	
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		94.6	79.8-131	6.30	9.26	
sec-Butylbenzene	0.021	0.0005	mg/L	0.0200		105	77.6-133	4.96	9.85	
Styrene	0.019	0.0005	mg/L	0.0200		96.2	71.7-128	3.87	7.55	
tert-Butylbenzene	0.021	0.0005	mg/L	0.0200		103	78.8-128	4.00	18.6	
Tetrachloroethene	0.020	0.0005	mg/L	0.0200		101	74.2-128	4.34	6.38	
Toluene	0.018	0.0005	mg/L	0.0200		91.6	68.1-127	6.09	5.67	QR-04
<i>Surrogate: Toluene-d8</i>	<i>0.0241</i>		mg/L	<i>0.0250</i>		<i>96.4</i>	<i>87.1-110</i>			
Total Xylenes	0.057	0.001	mg/L	0.0600		95.6	71.6-132	3.24	5.83	
trans-1,2-Dichloroethene	0.019	0.0005	mg/L	0.0200		93.2	65.2-133	5.53	19.1	
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		97.0	84-123	0.155	6.26	
trans-1,4-Dichloro-2-butene	0.034	0.010	mg/L	0.0400		85.6	9.3-235	12.0	92.8	
Trichloroethene	0.020	0.0005	mg/L	0.0200		99.6	79.3-114	0.849	4.92	
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		100	28.6-162	8.12	19.8	
Vinyl acetate	0.021	0.0005	mg/L	0.0200		103	50.9-135	14.7	7.84	QR-04
Vinyl chloride	0.022	0.0005	mg/L	0.0200		111	61.6-133	5.57	23	

Green Analytical Laboratories

Veronica J Wells

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

Notes and Definitions

QR-04 The RPD for the BS/BSD was outside of historical limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
12/27/23 15:10

Qualifier Summary

<u>LabNumber</u>	<u>Analysis</u>	<u>Analyte</u>	<u>Qualifier</u>	<u>TextBody</u>
3122038-BSD1	Volatile 8260	1,1,2,2-Tetrachloroethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	1,2-Dibromo-3-chloropropane	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	1,2-Dibromoethane	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	2-Butanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	2-Hexanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	4-Methyl-2-pentanone	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Acrylonitrile	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Chloroform	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Toluene	QR-04	The RPD for the BS/BSD was outside of historical limits.
3122038-BSD1	Volatile 8260	Vinyl acetate	QR-04	The RPD for the BS/BSD was outside of historical limits.

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A handwritten signature in blue ink that reads 'Veronica J. Wells'.

Veronica Wells, Project Manager

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(970) 247-4220
Fax: (970) 247-4227

service@greenanalytical.com or dzufelt@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Cottonwood Consulting LLC						Bill to (if different):							
Project Manager: Kyle Stessler						P.O. #:							
Address: PO Box 1653						Company:							
City: Durango						Attn:							
State: CO Zip: 81302						Address:							
Phone #: 970-764-7356 Email: kstessler@cottonwoodconsulting.com						City:							
Additional Report To:						State: Zip:							
Project Name: Mudge B #012R						Phone #:							
Project Number:						Fax or Email:							
Sampler Name (Print): Kelsey O'Brien													
FOR LAB USE ONLY													
Lab I.D.													
Sample Name or Location													
Date													
Time													
Groundwater													
Surfacewater													
Wastewater													
Produced Water													
Soil													
Other :													
No preservation (general)													
HNO ₃													
HCl													
H ₂ SO ₄													
Other:													
Other:													
EPA Method (8260)													
Report to State? (Circle)													



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2312 132Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☒ NoThermometer Used: 2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 10.4 °C Correction Factor: 0 °C Final Temp: 10.4 °C

* Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 12-15-23
RADLabeled by Initials: _____
(If different than above)

Chain of Custody Present:	☐ Yes ☒ No	1.
Chain of Custody Filled Out:	☐ Yes ☒ No	2.
Chain of Custody Relinquished:	☐ Yes ☒ No	3.
Sampler Name and Signature on COC:	☐ Yes ☒ No	4.
Samples arrived within hold time:	☐ Yes ☒ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☐ Yes ☒ No	8.
Correct Containers Used:	☐ Yes ☒ No	9.
Containers Intact:	☐ Yes ☒ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☒ No		
Sample Labels match COC: -Includes Date/Time/ID Matrix:	☐ Yes ☒ No <u>W</u> SL OT	12.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____



75 Suttle Street
Durango, CO 81303
970.247.4220 Phone
970.247.4227 Fax
www.greenanalytical.com

17 April 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Mudge B #012R

Enclosed are the results of analyses for samples received by the laboratory on 03/28/23 08:49. The data to follow was performed, in whole or in part, by Green Analytical Laboratories. Any data that was performed by a subcontract laboratory is included within the GAL report, or with an additional report attached.

If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen
Laboratory Director

All accredited analytes contained in this report are denoted by an asterisk (*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water. TNI Certificate Number: T104704514-23-17

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water through the Colorado Department of Public Health and Environment and EPA region 8. TNI Certificate Number: T104704398-22-15



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #2	2303243-01	Water	03/28/23 07:30	03/28/23 08:49	

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen, Laboratory Director

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Page 2 of 14 2303243 GAL FINAL 04 17 23 1730 04/17/23 17:30:45



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

MW #2

2303243-01 (Ground Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
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Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Dichlorodifluoromethane*	<0.0005	0.0005	0.00009	mg/L	1	04/11/23 13:23	8260B		MS
Chloromethane*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
Vinyl chloride*	<0.0005	0.0005	0.00005	mg/L	1	04/11/23 13:23	8260B		MS
Bromomethane*	<0.0005	0.0005	0.00005	mg/L	1	04/11/23 13:23	8260B		MS
Chloroethane*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
Trichlorofluoromethane*	<0.0005	0.0005	0.00003	mg/L	1	04/11/23 13:23	8260B		MS
1,1-Dichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	04/11/23 13:23	8260B		MS
Carbon disulfide*	<0.001	0.001	0.0003	mg/L	1	04/11/23 13:23	8260B		MS
Iodomethane	<0.001	0.001	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
Acrolein*	<0.005	0.005	0.0007	mg/L	1	04/11/23 13:23	8260B		MS
Methylene chloride*	<0.0005	0.0005	0.0003	mg/L	1	04/11/23 13:23	8260B		MS
Acetone*	<0.010	0.010	0.006	mg/L	1	04/11/23 13:23	8260B		MS
trans-1,2-Dichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	04/11/23 13:23	8260B		MS
Methyl tert-butyl ether	<0.001	0.001	0.0003	mg/L	1	04/11/23 13:23	8260B		MS
1,1-Dichloroethane*	<0.0005	0.0005	0.00008	mg/L	1	04/11/23 13:23	8260B		MS
Acrylonitrile*	<0.002	0.002	0.002	mg/L	1	04/11/23 13:23	8260B		MS
Vinyl acetate*	<0.0005	0.0005	0.0004	mg/L	1	04/11/23 13:23	8260B		MS
cis-1,2-Dichloroethene*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
2,2-Dichloropropane*	<0.0005	0.0005	0.0003	mg/L	1	04/11/23 13:23	8260B		MS
Bromochloromethane*	<0.0005	0.0005	0.00007	mg/L	1	04/11/23 13:23	8260B		MS
Chloroform*	<0.0005	0.0005	0.00005	mg/L	1	04/11/23 13:23	8260B		MS
Carbon tetrachloride*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
1,1,1-Trichloroethane*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
1,1-Dichloropropene*	<0.0005	0.0005	0.00007	mg/L	1	04/11/23 13:23	8260B		MS
2-Butanone*	<0.002	0.002	0.002	mg/L	1	04/11/23 13:23	8260B		MS
Benzene*	0.002	0.0005	0.00009	mg/L	1	04/11/23 13:23	8260B		MS
1,2-Dichloroethane*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
Trichloroethene*	<0.0005	0.0005	0.0002	mg/L	1	04/11/23 13:23	8260B		MS
Dibromomethane*	<0.0005	0.0005	0.0002	mg/L	1	04/11/23 13:23	8260B		MS
1,2-Dichloropropane*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
Bromodichloromethane*	<0.0005	0.0005	0.00007	mg/L	1	04/11/23 13:23	8260B		MS
cis-1,3-Dichloropropene*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

MW #2

2303243-01 (Ground Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

Toluene*	<0.0005	0.0005	0.00007	mg/L	1	04/11/23 13:23	8260B		MS
4-Methyl-2-pentanone*	<0.001	0.001	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
Tetrachloroethene*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
trans-1,3-Dichloropropene*	<0.0005	0.0005	0.00008	mg/L	1	04/11/23 13:23	8260B		MS
1,1,2-Trichloroethane*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
Dibromochloromethane*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
1,3-Dichloropropane*	<0.0005	0.0005	0.00001	mg/L	1	04/11/23 13:23	8260B		MS
1,2-Dibromoethane*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
2-Hexanone*	<0.001	0.001	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
Chlorobenzene*	<0.0005	0.0005	0.00002	mg/L	1	04/11/23 13:23	8260B		MS
Ethylbenzene*	<0.0005	0.0005	0.00009	mg/L	1	04/11/23 13:23	8260B		MS
1,1,1,2-Tetrachloroethane*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
m+p - Xylene*	<0.001	0.001	0.0005	mg/L	1	04/11/23 13:23	8260B		MS
o-Xylene*	<0.0005	0.0005	0.00007	mg/L	1	04/11/23 13:23	8260B		MS
Total Xylenes*	<0.001	0.001	0.0005	mg/L	1	04/11/23 13:23	8260B		MS
Bromoform*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
Styrene*	<0.0005	0.0005	0.00002	mg/L	1	04/11/23 13:23	8260B		MS
Isopropylbenzene*	<0.0005	0.0005	0.00002	mg/L	1	04/11/23 13:23	8260B		MS
Bromobenzene*	<0.0005	0.0005	0.00003	mg/L	1	04/11/23 13:23	8260B		MS
n-Propylbenzene*	<0.0005	0.0005	0.00001	mg/L	1	04/11/23 13:23	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
2-Chlorotoluene*	<0.0005	0.0005	0.00004	mg/L	1	04/11/23 13:23	8260B		MS
1,2,3-trichloropropane*	<0.0005	0.0005	0.00005	mg/L	1	04/11/23 13:23	8260B		MS
1,3,5-Trimethylbenzene*	<0.0005	0.0005	0.00003	mg/L	1	04/11/23 13:23	8260B		MS
trans-1,4-Dichloro-2-butene	<0.010	0.010	0.006	mg/L	1	04/11/23 13:23	8260B		MS
4-Chlorotoluene*	<0.0005	0.0005	0.00003	mg/L	1	04/11/23 13:23	8260B		MS
tert-Butylbenzene*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
1,2,4-Trimethylbenzene*	<0.0005	0.0005	0.00003	mg/L	1	04/11/23 13:23	8260B		MS
sec-Butylbenzene*	<0.0005	0.0005	0.00002	mg/L	1	04/11/23 13:23	8260B		MS
p-Isopropyltoluene*	<0.0005	0.0005	0.00003	mg/L	1	04/11/23 13:23	8260B		MS
1,3-Dichlorobenzene*	<0.0005	0.0005	0.00004	mg/L	1	04/11/23 13:23	8260B		MS
1,4 Dichlorobenzene*	<0.0005	0.0005	0.00004	mg/L	1	04/11/23 13:23	8260B		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

MW #2

2303243-01 (Ground Water)

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

Subcontracted -- Cardinal Laboratories 101 East Marland Hobbs, NM 88240

VOLATILES BY GC/MS

n-Butylbenzene*	<0.0005	0.0005	0.00003	mg/L	1	04/11/23 13:23	8260B		MS
1,2-Dichlorobenzene*	<0.0005	0.0005	0.00006	mg/L	1	04/11/23 13:23	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.0005	0.0005	0.0002	mg/L	1	04/11/23 13:23	8260B		MS
Hexachlorobutadiene*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
1,2,4-Trichlorobenzene*	<0.0005	0.0005	0.00009	mg/L	1	04/11/23 13:23	8260B		MS
Naphthalene*	<0.0005	0.0005	0.00004	mg/L	1	04/11/23 13:23	8260B		MS
1,2,3-Trichlorobenzene*	<0.0005	0.0005	0.0001	mg/L	1	04/11/23 13:23	8260B		MS
1,4-Dioxane	<0.100	0.100	0.029	mg/L	1	04/11/23 13:23	8260B		MS
Surrogate: Dibromofluoromethane			102 %	82.4-141		04/11/23 13:23	8260B		MS
Surrogate: Toluene-d8			102 %	87.1-110		04/11/23 13:23	8260B		MS
Surrogate: 4-Bromofluorobenzene			97.2 %	76.4-114		04/11/23 13:23	8260B		MS

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

VOLATILES BY GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3041107 - Volatiles

Blank (3041107-BLK1)

Prepared & Analyzed: 04/11/23

1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,1-Trichloroethane	ND	0.0005	mg/L
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L
1,1,2-Trichloroethane	ND	0.0005	mg/L
1,1-Dichloroethane	ND	0.0005	mg/L
1,1-Dichloroethene	ND	0.0005	mg/L
1,1-Dichloropropene	ND	0.0005	mg/L
1,2,3-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trichlorobenzene	ND	0.0005	mg/L
1,2,4-Trimethylbenzene	ND	0.0005	mg/L
1,2-Dibromo-3-chloropropane	ND	0.0005	mg/L
1,2-Dibromoethane	ND	0.0005	mg/L
1,2-Dichlorobenzene	ND	0.0005	mg/L
1,2-Dichloroethane	ND	0.0005	mg/L
1,2-Dichloropropane	ND	0.0005	mg/L
1,3,5-Trimethylbenzene	ND	0.0005	mg/L
1,3-Dichlorobenzene	ND	0.0005	mg/L
1,3-Dichloropropane	ND	0.0005	mg/L
1,4-Dichlorobenzene	ND	0.0005	mg/L
1,4-Dioxane	ND	0.100	mg/L
1,2,3-trichloropropane	ND	0.0005	mg/L
2,2-Dichloropropane	ND	0.0005	mg/L
2-Butanone	ND	0.002	mg/L
2-Chlorotoluene	ND	0.0005	mg/L
2-Hexanone	ND	0.001	mg/L

Surrogate: 4-Bromofluorobenzene	0.0246		mg/L	0.0250	98.5	76.4-114
4-Chlorotoluene	ND	0.0005	mg/L			
4-Methyl-2-pentanone	ND	0.001	mg/L			
Acetone	ND	0.010	mg/L			
Acrolein	ND	0.005	mg/L			
Acrylonitrile	ND	0.002	mg/L			
Benzene	ND	0.0005	mg/L			
Bromobenzene	ND	0.0005	mg/L			
Bromochloromethane	ND	0.0005	mg/L			
Bromodichloromethane	ND	0.0005	mg/L			
Bromoform	ND	0.0005	mg/L			

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Jeremy D Allen, Laboratory Director

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3041107 - Volatiles (Continued)

Blank (3041107-BLK1) (Continued)

Prepared & Analyzed: 04/11/23

Bromomethane	ND	0.0005	mg/L							
Carbon disulfide	0.001	0.001	mg/L							
Carbon tetrachloride	ND	0.0005	mg/L							
Chlorobenzene	ND	0.0005	mg/L							
Chloroethane	ND	0.0005	mg/L							
Chloroform	ND	0.0005	mg/L							
Chloromethane	ND	0.0005	mg/L							
cis-1,2-Dichloroethene	ND	0.0005	mg/L							
cis-1,3-Dichloropropene	ND	0.0005	mg/L							
Dibromochloromethane	ND	0.0005	mg/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0250</i>		mg/L	<i>0.0250</i>		<i>100</i>	<i>82.4-141</i>			
Dibromomethane	ND	0.0005	mg/L							
Dichlorodifluoromethane	ND	0.0005	mg/L							
Ethylbenzene	ND	0.0005	mg/L							
Hexachlorobutadiene	ND	0.0005	mg/L							
Iodomethane	ND	0.001	mg/L							
Isopropylbenzene	ND	0.0005	mg/L							
m+p - Xylene	ND	0.001	mg/L							
Methyl tert-butyl ether	ND	0.001	mg/L							
Methylene chloride	ND	0.0005	mg/L							
Naphthalene	ND	0.0005	mg/L							
n-Butylbenzene	ND	0.0005	mg/L							
n-Propylbenzene	ND	0.0005	mg/L							
o-Xylene	ND	0.0005	mg/L							
p-Isopropyltoluene	ND	0.0005	mg/L							
sec-Butylbenzene	ND	0.0005	mg/L							
Styrene	ND	0.0005	mg/L							
tert-Butylbenzene	ND	0.0005	mg/L							
Tetrachloroethene	ND	0.0005	mg/L							
Toluene	ND	0.0005	mg/L							
<i>Surrogate: Toluene-d8</i>	<i>0.0258</i>		mg/L	<i>0.0250</i>		<i>103</i>	<i>87.1-110</i>			
Total Xylenes	ND	0.001	mg/L							
trans-1,2-Dichloroethene	ND	0.0005	mg/L							
trans-1,3-Dichloropropene	ND	0.0005	mg/L							
trans-1,4-Dichloro-2-butene	ND	0.010	mg/L							
Trichloroethene	ND	0.0005	mg/L							
Trichlorofluoromethane	ND	0.0005	mg/L							
Vinyl acetate	ND	0.0005	mg/L							
Vinyl chloride	ND	0.0005	mg/L							

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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Project Name / Number: Mudge B #012R
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Reported:
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VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3041107 - Volatiles (Continued)

LCS (3041107-BS1)

Prepared & Analyzed: 04/11/23

1,1,1,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		87.7	82.4-120			
1,1,1-Trichloroethane	0.018	0.0005	mg/L	0.0200		91.4	80.7-121			
1,1,2,2-Tetrachloroethane	0.017	0.0005	mg/L	0.0200		84.7	76.5-121			
1,1,2-Trichloroethane	0.017	0.0005	mg/L	0.0200		84.0	81.7-118			
1,1-Dichloroethane	0.018	0.0005	mg/L	0.0200		89.9	74.8-123			
1,1-Dichloroethene	0.018	0.0005	mg/L	0.0200		91.6	53.9-149			
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		90.0	85.9-115			
1,2,3-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		97.0	76.1-134			
1,2,4-Trichlorobenzene	0.019	0.0005	mg/L	0.0200		96.0	72.4-136			
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		92.8	67.4-138			
1,2-Dibromo-3-chloropropane	0.017	0.0005	mg/L	0.0200		87.0	71.7-124			
1,2-Dibromoethane	0.018	0.0005	mg/L	0.0200		89.2	84.9-116			
1,2-Dichlorobenzene	0.017	0.0005	mg/L	0.0200		84.8	82.5-119			
1,2-Dichloroethane	0.016	0.0005	mg/L	0.0200		80.4	72.5-123			
1,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		88.1	79.4-117			
1,3,5-Trimethylbenzene	0.018	0.0005	mg/L	0.0200		92.5	69-137			
1,3-Dichlorobenzene	0.017	0.0005	mg/L	0.0200		86.0	84.4-120			
1,3-Dichloropropane	0.017	0.0005	mg/L	0.0200		87.4	82.6-117			
1,4 Dichlorobenzene	0.016	0.0005	mg/L	0.0200		81.2	81.7-118			BS-3
1,4-Dioxane	0.381	0.100	mg/L	0.400		95.4	-34.6-193			
1,2,3-trichloropropane	0.018	0.0005	mg/L	0.0200		89.2	44.7-168			
2,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		92.6	62.9-136			
2-Butanone	0.035	0.002	mg/L	0.0400		87.2	24.1-159			
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		88.6	80.2-121			
2-Hexanone	0.035	0.001	mg/L	0.0400		88.0	56.3-139			
Surrogate: 4-Bromofluorobenzene	0.0251		mg/L	0.0250		100	76.4-114			
4-Chlorotoluene	0.018	0.0005	mg/L	0.0200		91.7	82.2-125			
4-Methyl-2-pentanone	0.037	0.001	mg/L	0.0400		91.6	60.7-139			
Acetone	0.038	0.010	mg/L	0.0400		93.9	39.1-168			
Acrolein	0.186	0.005	mg/L	0.200		93.1	26.6-161			
Acrylonitrile	0.035	0.002	mg/L	0.0400		88.7	64.9-135			
Benzene	0.018	0.0005	mg/L	0.0200		87.8	69.4-129			
Bromobenzene	0.018	0.0005	mg/L	0.0200		90.4	83.5-115			
Bromochloromethane	0.017	0.0005	mg/L	0.0200		86.6	70.7-123			
Bromodichloromethane	0.017	0.0005	mg/L	0.0200		86.7	80.3-119			
Bromoform	0.021	0.0005	mg/L	0.0200		104	71.1-141			
Bromomethane	0.017	0.0005	mg/L	0.0200		87.4	55.1-143			
Carbon disulfide	0.036	0.001	mg/L	0.0400		91.2	53.6-147			
Carbon tetrachloride	0.019	0.0005	mg/L	0.0200		96.4	79.5-125			

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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Cottonwood Consulting
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Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3041107 - Volatiles (Continued)

LCS (3041107-BS1) (Continued)

Prepared & Analyzed: 04/11/23

Chlorobenzene	0.018	0.0005	mg/L	0.0200		88.6	85.1-115			
Chloroethane	0.018	0.0005	mg/L	0.0200		90.7	36.9-159			
Chloroform	0.018	0.0005	mg/L	0.0200		90.5	80.9-119			
Chloromethane	0.017	0.0005	mg/L	0.0200		83.4	54.2-142			
cis-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		88.8	73.8-128			
cis-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		92.9	82.5-122			
Dibromochloromethane	0.019	0.0005	mg/L	0.0200		94.8	83.1-124			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0256</i>		mg/L	<i>0.0250</i>		<i>102</i>	<i>82.4-141</i>			
Dibromomethane	0.017	0.0005	mg/L	0.0200		83.2	77-118			
Dichlorodifluoromethane	0.019	0.0005	mg/L	0.0200		93.0	38.7-147			
Ethylbenzene	0.018	0.0005	mg/L	0.0200		90.0	70.2-130			
Hexachlorobutadiene	0.020	0.0005	mg/L	0.0200		98.5	78.9-148			
Iodomethane	0.037	0.001	mg/L	0.0400		92.8	63.5-135			
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		97.6	85-124			
m+p - Xylene	0.037	0.001	mg/L	0.0400		93.0	71.9-133			
Methyl tert-butyl ether	0.037	0.001	mg/L	0.0400		92.1	57.7-137			
Methylene chloride	0.019	0.0005	mg/L	0.0200		94.4	49.3-163			
Naphthalene	0.018	0.0005	mg/L	0.0200		89.3	62.1-141			
n-Butylbenzene	0.017	0.0005	mg/L	0.0200		86.2	75.4-132			
n-Propylbenzene	0.018	0.0005	mg/L	0.0200		87.6	79.6-124			
o-Xylene	0.019	0.0005	mg/L	0.0200		93.0	69.4-132			
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		93.4	79.8-131			
sec-Butylbenzene	0.018	0.0005	mg/L	0.0200		90.6	77.6-133			
Styrene	0.020	0.0005	mg/L	0.0200		101	71.7-128			
tert-Butylbenzene	0.019	0.0005	mg/L	0.0200		94.3	78.8-128			
Tetrachloroethene	0.018	0.0005	mg/L	0.0200		90.4	74.2-128			
Toluene	0.017	0.0005	mg/L	0.0200		86.0	68.1-127			
<i>Surrogate: Toluene-d8</i>	<i>0.0249</i>		mg/L	<i>0.0250</i>		<i>99.6</i>	<i>87.1-110</i>			
Total Xylenes	0.056	0.001	mg/L	0.0600		93.0	71.6-132			
trans-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		90.7	65.2-133			
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		96.8	84-123			
trans-1,4-Dichloro-2-butene	0.071	0.010	mg/L	0.0400		176	9.3-235			
Trichloroethene	0.018	0.0005	mg/L	0.0200		88.6	79.3-114			
Trichlorofluoromethane	0.018	0.0005	mg/L	0.0200		91.6	28.6-162			
Vinyl acetate	0.016	0.0005	mg/L	0.0200		81.8	50.9-135			
Vinyl chloride	0.018	0.0005	mg/L	0.0200		90.8	61.6-133			

LCS Dup (3041107-BSD1)

Prepared & Analyzed: 04/11/23

1,1,1,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		88.4	82.4-120	0.738	6.88	
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Reported:
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VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3041107 - Volatiles (Continued)

LCS Dup (3041107-BSD1) (Continued)

Prepared & Analyzed: 04/11/23

1,1,1-Trichloroethane	0.018	0.0005	mg/L	0.0200		88.2	80.7-121	3.51	7.43	
1,1,2,2-Tetrachloroethane	0.017	0.0005	mg/L	0.0200		86.2	76.5-121	1.81	8.68	
1,1,2-Trichloroethane	0.017	0.0005	mg/L	0.0200		84.2	81.7-118	0.178	6.82	
1,1-Dichloroethane	0.018	0.0005	mg/L	0.0200		88.6	74.8-123	1.46	4.3	
1,1-Dichloroethene	0.019	0.0005	mg/L	0.0200		92.8	53.9-149	1.30	16.5	
1,1-Dichloropropene	0.018	0.0005	mg/L	0.0200		89.2	85.9-115	0.949	5.47	
1,2,3-Trichlorobenzene	0.018	0.0005	mg/L	0.0200		92.2	76.1-134	5.13	43	
1,2,4-Trichlorobenzene	0.018	0.0005	mg/L	0.0200		92.2	72.4-136	3.93	22.3	
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		92.9	67.4-138	0.0538	8.94	
1,2-Dibromo-3-chloropropane	0.017	0.0005	mg/L	0.0200		86.9	71.7-124	0.115	15.1	
1,2-Dibromoethane	0.018	0.0005	mg/L	0.0200		89.0	84.9-116	0.281	5.83	
1,2-Dichlorobenzene	0.017	0.0005	mg/L	0.0200		85.8	82.5-119	1.17	8.72	
1,2-Dichloroethane	0.016	0.0005	mg/L	0.0200		80.6	72.5-123	0.124	8.94	
1,2-Dichloropropane	0.017	0.0005	mg/L	0.0200		86.9	79.4-117	1.37	5.51	
1,3,5-Trimethylbenzene	0.018	0.0005	mg/L	0.0200		91.2	69-137	1.42	16.5	
1,3-Dichlorobenzene	0.017	0.0005	mg/L	0.0200		84.8	84.4-120	1.46	9	
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		88.0	82.6-117	0.741	6.06	
1,4 Dichlorobenzene	0.016	0.0005	mg/L	0.0200		82.5	81.7-118	1.53	7.71	
1,4-Dioxane	0.393	0.100	mg/L	0.400		98.2	-34.6-193	2.94	35.2	
1,2,3-trichloropropane	0.017	0.0005	mg/L	0.0200		84.8	44.7-168	5.06	49.2	
2,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		91.7	62.9-136	0.923	9.62	
2-Butanone	0.036	0.002	mg/L	0.0400		88.8	24.1-159	1.79	14.2	
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		87.8	80.2-121	0.794	8.62	
2-Hexanone	0.034	0.001	mg/L	0.0400		86.0	56.3-139	2.27	7.28	
Surrogate: 4-Bromofluorobenzene	0.0253		mg/L	0.0250		101	76.4-114			
4-Chlorotoluene	0.018	0.0005	mg/L	0.0200		91.6	82.2-125	0.0545	15.5	
4-Methyl-2-pentanone	0.037	0.001	mg/L	0.0400		92.8	60.7-139	1.30	7.57	
Acetone	0.037	0.010	mg/L	0.0400		92.7	39.1-168	1.34	30.5	
Acrolein	0.180	0.005	mg/L	0.200		90.1	26.6-161	3.27	22.4	
Acrylonitrile	0.035	0.002	mg/L	0.0400		87.3	64.9-135	1.62	7.62	
Benzene	0.018	0.0005	mg/L	0.0200		88.0	69.4-129	0.114	4.16	
Bromobenzene	0.018	0.0005	mg/L	0.0200		89.5	83.5-115	1.00	8.41	
Bromochloromethane	0.017	0.0005	mg/L	0.0200		84.7	70.7-123	2.22	5.16	
Bromodichloromethane	0.018	0.0005	mg/L	0.0200		88.0	80.3-119	1.43	5.36	
Bromoform	0.020	0.0005	mg/L	0.0200		101	71.1-141	3.02	14.1	
Bromomethane	0.017	0.0005	mg/L	0.0200		86.4	55.1-143	1.15	21.5	
Carbon disulfide	0.036	0.001	mg/L	0.0400		89.2	53.6-147	2.19	20.3	
Carbon tetrachloride	0.018	0.0005	mg/L	0.0200		91.8	79.5-125	4.84	11.4	
Chlorobenzene	0.017	0.0005	mg/L	0.0200		87.0	85.1-115	1.88	5.18	

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jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

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Project: VOC 8260
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Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 3041107 - Volatiles (Continued)

LCS Dup (3041107-BSD1) (Continued)

Prepared & Analyzed: 04/11/23

Chloroethane	0.018	0.0005	mg/L	0.0200		90.5	36.9-159	0.221	24.1	
Chloroform	0.018	0.0005	mg/L	0.0200		89.1	80.9-119	1.56	5.15	
Chloromethane	0.017	0.0005	mg/L	0.0200		87.0	54.2-142	4.23	27	
cis-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		87.8	73.8-128	1.02	5.73	
cis-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		91.7	82.5-122	1.30	6.09	
Dibromochloromethane	0.019	0.0005	mg/L	0.0200		93.6	83.1-124	1.22	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0249</i>		mg/L	<i>0.0250</i>		<i>99.6</i>	<i>82.4-141</i>			
Dibromomethane	0.017	0.0005	mg/L	0.0200		83.5	77-118	0.300	5.75	
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		91.9	38.7-147	1.19	22.6	
Ethylbenzene	0.018	0.0005	mg/L	0.0200		89.1	70.2-130	1.01	4.83	
Hexachlorobutadiene	0.019	0.0005	mg/L	0.0200		97.2	78.9-148	1.28	18.4	
Iodomethane	0.038	0.001	mg/L	0.0400		94.0	63.5-135	1.28	24.3	
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		96.9	85-124	0.771	6.25	
m+p - Xylene	0.037	0.001	mg/L	0.0400		93.0	71.9-133	0.0269	5.77	
Methyl tert-butyl ether	0.037	0.001	mg/L	0.0400		91.8	57.7-137	0.326	12.8	
Methylene chloride	0.019	0.0005	mg/L	0.0200		93.6	49.3-163	0.798	19.7	
Naphthalene	0.017	0.0005	mg/L	0.0200		86.8	62.1-141	2.84	33.5	
n-Butylbenzene	0.017	0.0005	mg/L	0.0200		84.1	75.4-132	2.47	10.1	
n-Propylbenzene	0.017	0.0005	mg/L	0.0200		87.3	79.6-124	0.286	9.09	
o-Xylene	0.018	0.0005	mg/L	0.0200		91.8	69.4-132	1.24	6.29	
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		92.8	79.8-131	0.537	9.26	
sec-Butylbenzene	0.018	0.0005	mg/L	0.0200		90.4	77.6-133	0.166	9.85	
Styrene	0.019	0.0005	mg/L	0.0200		96.0	71.7-128	5.13	7.55	
tert-Butylbenzene	0.019	0.0005	mg/L	0.0200		93.0	78.8-128	1.39	18.6	
Tetrachloroethene	0.019	0.0005	mg/L	0.0200		92.8	74.2-128	2.68	6.38	
Toluene	0.017	0.0005	mg/L	0.0200		87.3	68.1-127	1.56	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0250</i>		mg/L	<i>0.0250</i>		<i>100</i>	<i>87.1-110</i>			
Total Xylenes	0.056	0.001	mg/L	0.0600		92.6	71.6-132	0.431	5.83	
trans-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		90.6	65.2-133	0.0552	19.1	
trans-1,3-Dichloropropene	0.019	0.0005	mg/L	0.0200		94.5	84-123	2.41	6.26	
trans-1,4-Dichloro-2-butene	0.046	0.010	mg/L	0.0400		116	9.3-235	41.3	92.8	
Trichloroethene	0.018	0.0005	mg/L	0.0200		88.8	79.3-114	0.225	4.92	
Trichlorofluoromethane	0.019	0.0005	mg/L	0.0200		94.5	28.6-162	3.06	19.8	
Vinyl acetate	0.016	0.0005	mg/L	0.0200		80.6	50.9-135	1.35	7.84	
Vinyl chloride	0.018	0.0005	mg/L	0.0200		92.0	61.6-133	1.42	23	

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



jeremy.allen@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge B #012R
Project Manager: Kyle Siesser

Reported:
04/17/23 17:30

Notes and Definitions

BS-3 Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis
*Results reported on as received basis unless designated as dry.

RPD Relative Percent Difference

LCS Laboratory Control Sample (Blank Spike)

RL Report Limit

MDL Method Detection Limit

Green Analytical Laboratories

A handwritten signature in blue ink that reads 'Jeremy D. Allen'.

Jeremy D Allen, Laboratory Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



(970) 247-4220
Fax: (970) 247-4227
 service@greenanalytical.com or dzufell@greenanalytical.com
75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Cottonwood Consulting LLC

Project Manager: Kyle Slessner

Address: PO Box 1653

City: Durango

Phone #: 970-764-7356

Additional Report To:

Project Name: Mudge B #012R

Project Number:

State: CO

Zip: 81302

Email: kslessner@cottonwoodconsulting.com

City:

State:

Zip:

Phone #:

Fax or Email:

Bill to (if different):

P.O. #:

Company:

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax or Email:

FOR LAB USE ONLY

Sample Name (Print): Joseph LaFortune

Lab I.D.

2503-243

01

MW #2

3-28-23

0730

X

GROUNDWATER

SURFACEWATER

WASTEWATER

PRODUCEDWATER

SOIL

OTHER :

No preservation (general)

HNO3

HCl

H2SO4

Other:

Other:

4

X

EPA Method 8260 (VOCs)

Sample Name or Location

Collected

Matrix (check one)

of containers

ANALYSIS REQUEST

PLEASE NOTE: G.A.L.'s liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by G.A.L. within 30 days after completion. In no event shall G.A.L. be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder.

Relinquished By:

Date: 3-8-23

Time: 0849

Received By:

Received By:

Temperature at receipt: case 12.1

CHECKED BY: MPV

on ice

Relinquished By:

Date:

Time:

Received By:

Report to State? (Circle)

Yes

No

Delivered By: (Circle One)

Sampler: UPS - FedEx - Kangaroo - Other:



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2303-243Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☐ NoThermometer Used: #2 Samples on ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 12.7 °C Correction Factor: 0 °C Final Temp: 12.7 °C

*Temp should be above freezing to 6°C

Date/Initials of person
examining contents: MPW 3/28/23Labeled by initials: _____
(if different than above)

Chain of Custody Present:	☒ Yes ☐ No	1.
Chain of Custody Filled Out:	☒ Yes ☐ No	2.
Chain of Custody Relinquished:	☒ Yes ☐ No	3.
Sampler Name and Signature on COC:	☒ Yes ☐ No	4.
Samples arrived within hold time:	☒ Yes ☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No	7.
Sufficient Volume:	☒ Yes ☐ No	8.
Correct Containers Used:	☒ Yes ☐ No	9.
Containers Intact:	☒ Yes ☐ No	10.
Dissolved Testing Needed:	☐ Yes ☒ No	11.
Field Filtered: ☐ Yes ☐ No		
Sample Labels match COC: -Includes Date/Time/ID	☒ Yes ☐ No	12.
Matrix:	☒ WT ☐ SL ☐ OT	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	13.
Trip Blank Custody Seals Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/Resolution:

Person Contacted: _____

Date/Time: _____

 Comments/Resolution: _____

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

MUDGE B # 12R
 UNIT A, SEC. 17, T31N, R11W

LABORATORY (S) USED :

GAL

Date :

6/21/23

DEVELOPER / SAMPLER :

JL / DS

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos) (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	<u>43.76</u>	49.90	-	-	-	-	-
2	-	-	<u>42.63</u>	46.40	<u>1145</u>	<u>7.90</u>	<u>7.53</u>	<u>29.7</u>	<u>-</u>
3	-	-	<u>42.13</u>	44.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
 (i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.50" well diameter = 0.28 gal./ft. of water.

2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Purged available water in MW #2 using 1.5 inch submersible electrical pump and new / clear vinyl tubing.

Water clear, no fish, no odor, no bubbles

Top of casing MW # 1 ~ 3.00 ft. , MW # 2 ~ 3.04 ft. , MW # 3 ~ 3.00 ft. above grade .

on-site	<u>1130</u>	temp	<u>75</u>
off-site	<u>1200</u>	temp	<u>75</u>
sky cond.	<u>Clear</u>		
wind speed	<u>5-10</u>	direct.	<u>W</u>

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

MUDGE B #12R
 UNIT A, SEC. 17, T31N, R11W

LABORATORY (S) USED :

GAL

Date :

9/20/23

DEVELOPER / SAMPLER :

EM / JL

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	42.62	49.90	-	-	-	-	-
2	-	-	42.17	46.40	1135	8.03	9.26	18.3	2.0m 1.0
3	-	-	42.13	44.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
 (i.e. 2" MW $r = (1/12) \text{ ft}$. $h = 1 \text{ ft}$.) (i.e. 4" MW $r = (2/12) \text{ ft}$. $h = 1 \text{ ft}$.)

Ideally a minimum of three (3) wellbore volumes:

1.50" well diameter = 0.28 gal./ft. of water.

2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Purged available water in MW #2 using 1.5 inch ~~submersible electrical pump and new / clear vinyl tubing~~ bailer.

Top of casing MW #1 ~ 3.00 ft , MW #2 ~ 3.04 ft , MW #3 ~ 3.00 ft. above grade .

on-site	<u>1120</u>	temp	<u>~68°F</u>
off-site		temp	
sky cond.	<u>cloudy</u>		
wind speed	<u>0-5</u>	direct.	<u>variable</u>

COTTONWOOD CONSULTING LLC
MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

MUDGE B # 12R
UNIT A, SEC. 17, T31N, R11W

LABORATORY (S) USED : LAL

Date : 12/14/23

DEVELOPER / SAMPLER : WIDS

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	43.82	49.90	-	-	-	-	-
2	-	-	42.71	46.40	1525	7.89	9210	10.8	-
3	-	-	42.81	44.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r² X h X 7.48 gal./ft³ X 3 (wellbores).
(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes: 1.50" well diameter = 0.28 gal./ft. of water.
2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Purged available water in MW #2 using 1.5 inch submersible electrical pump and new / clear vinyl tubing.

Top of casing MW # 1 ~ 3.00 ft. , MW # 2 ~ 3.04 ft. , MW # 3 ~ 3.00 ft. above grade .

on-site	<u>1500</u>	temp	<u>40°</u>
off-site	<u>1545</u>	temp	<u>40°</u>
sky cond.	<u>cloudy</u>		
wind speed	<u>D-S</u>	direct.	<u>W</u>

COTTONWOOD CONSULTING LLC
MONITOR WELL DEVELOPMENT & /OR SAMPLING DATA

CLIENT : **SIMCOE LLC**

MUDGE B # 12R
UNIT A, SEC. 17, T31N, R11W

LABORATORY (S) USED : Green Analytics

Date : **March 28, 2023**

DEVELOPER / SAMPLER : JL

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	41.00	49.90	-	-	-	-	-
2	-	-	43.80	46.40	0730	8.62	9,600	9.8	0.00
3	-	-	43.70	44.00	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$
(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

1.50" well diameter = 0.28 gal./ft. of water.

2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Purged available water in MW #2 using 1 inch new bailer.

Top of casing MW # 1 ~ 3.00 ft. , MW # 2 ~ 3.04 ft. , MW # 3 ~ 3.00 ft. above grade .

on-site	7:15 AM	temp	24
off-site	7:50 AM	temp	26
sky cond.	Clear		
wind speed	0-5 mph	direct.	S/SW

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Exhaust Rate (cfm) if known	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic ALS 9A	1-10-23	1	11.1	-46	-37	-	Y	26.5	Y	
Florence GCU 16	1	2	23.1	Broken	-	-	N	31.4	N	Drum Frozen
Sandoval	1	1	62.2	-8	Broken	-	N	14	Y	Tank 80-90% Full
Jacquez	1	3	7.4	0.0	Broken	-	N	9	Y	Attempted to restart unit will not turn on
Al Elliot	1	5	165.0	-10	-10	-	Y	27.5	Y	638.8 hours run time
GCU H80	1	All	-	-	-	-	Y	-	-	2.5 PSI 154°F 1947.1 Hrs 1)0.0 2)0.0 3)1.0 4)0.0
Heaton	1	unk	106.6	-66	Broken	-	Y	26.5	Y	
Mudge B12R	1/14/23	1	-	-	-	-	N	32	N	drum frozen - unable to drain. SVE not operational.
Mudge A2	1/12/23	2	0.8	-54	-	-	Y	31	N	water in drum below drain port.

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 cfm- cubic feet per minute
 bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Exhaust Rate (cfm) if known	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic ALS 9A	2-7-23	1	5.4	-38	-47	-	Y	26.5	Y	
Florence	↓	2	2.5 Broken	Broken	-	-	N	27	N	Restarted System, System carries when left
Sandoval	↓	1	2 0.4	-	-	-	N	14.25	Y	Attempted to restart Unit restart
Jacquez	↓	3	1.0	-	-	-	N	28	N	Attempted to restart Went restart, Drum Frozen
Al Elliot	↓	5	2.4	-	-	-	N	27.5	Y	Attempted to restart Will not restart
GU H80	↓	All	-	-	-	-	Y	-	-	2.6 PSI 150°F 2618.0 hrs 1) 0.5 2) 0.5 3) 0.5 4) 0.25
Heaton	↓	Unk	106.7	-56	-	-	Y	29.5	Y	
Mudge B12R	2-9-23	1	0.2	-	-	-	N	32.0	N	Attempted to restart System won't start, Drum Frozen
Mudge A2	2-9-23	2	2.1	-54	-	-	Y	30.5	N	Drum Frozen

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 cfm- cubic feet per minute
 bTOD- below top of drum



SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Exhaust Rate (cfm) if known	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	3/9/23	1	5.9	-36	-46	-	Y	31.25	Y	
Florance		2	131.3	broken	none	-	Y	24.5	Y	drum valve leaking
Sandoval		1	13.3	Broken	Broken	-	Y	31.0	Y	run time 1041.7 hrs Grabbed gas sample @ 1045
Jacquez		3	-	-	-	-	N	-	N	System not operational
Al Elliot		5	132.0	-8	-10	-	Y	30.25	Y	run time 971.7 hours
GCU H80	↓	All	-	-	-	-	Y	-		2.5 PSI 150°F 3339.0 hours 1)0.2 2)0.2 3)1.25 4)0.1
Heaton	3/10/23	unk	113.8	-42	-	-	Y	28.5	Y	
Mudge B12R	↓	1	-	-	-	-	-	-	-	unable to access site
Mudge A2	↓	2	109.1	-52	-	-	Y	31.5	N	water in drum below valve

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 cfm- cubic feet per minute
 bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H ₂ O")	Vacuum Pressure downstream of drum (H ₂ O")	Run Time (Hours)	System Operational at Arrival?	Drum H ₂ O (inches bTOD)	Drum Drained?	Comments
Atlantic	4-6-23	1	5.1	-44	-36	—	Y	30.5	N	Drum Frozen
Florance		2	104.1	Broken	—	—	Y	20.5	Y	Drum leaking from Drain Valve
Sandoval		1	10.5	Broken	Broken	1681.2	N	14.3	Y	system restarted after Draining drum
Jaquez		3	142.1	-30	—	334.3	Y	28.75	Y	
AL Elliott		5	110.5	-8	-12	1347.5	Y	30.5	Y	
GC4 H180		411	—	—	—	4005.7	Y	—	—	2.6 ps: 160° (1) 0.5 (2) 0.6 (3) 0.5 (4) 0.5
Henton		unlabeled	122.7	-56	—	—	Y	31.25	Y	
Mudge B12R		1	204.7	-44	-30	—	Y	29.25	Y	
Mudge A002	↓	2	96.5	-52	—	—	Y	30.5	Y	

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H₂O"- inches water
 cfm- cubic feet per minute
 bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	5/3/23	1	38.4	-35	-45	-	Y	32	N	water below port
Florance		2	101.9	Broken	-	-	N	33	N	water below port Restarted system.
Sandoval		1	9.6	Broken	Broken	2329.0	Y	26.5	Y	2329.0 hrs
Jaquez		3	-	-	-	-	N	29	Y	System won't start.
AL Elliott		5	106.2	-8	-11	1951.3	Y	32	Y	1951.3 hrs
GCU H180		All	-	-	-	4510.2	Y	-	-	2.5 psi 165° Temp 1) 0.5 2) 0.5 3) 1.0 4) 0.5
Heaton		unk	104.3	-53	-	-	Y	Dry	N	
Mudge B12R		1	122.3	-44	-29	-	Y	31.5	Y	
Mudge A002	✓	2	69.3	-59	-	-	N	31	N	water below port. restarted system.

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

Pain valve
still leaking.4510.2 hrs
psi

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	6/6/23	1	5.5	-44	0	—	Y	Dry	N	
Florence	↓	2	99.6	Broken	—	—	Y	29"	Y	Drum leaking from drain valve
Sandoval	↓	1	7.3	Broken	Broken	3144.4	Y	Below Port	N	3144.4 hrs
Juarez	↓	3	123.2	-24	—	1606.7	Y	30"	Y	1606.7 hrs
Al Elliott	↓	5	96.8	-8	-11	2683.0	Y	Below Port	N	2683.0 hrs
GCU H180	↓	All	—	—	—	5326.6	Y	—	—	110° 2.4 PSI 1) 1.75 2) 0.5 3) 0.5 4) 0.5 PSI 5326.6 hrs
Heaton	↓	Unk	110.5	-54	—	—	Y	Dry	N	Vacuum Pressure gauge removed (downstream)
Mudge B12R	↓	1	101.1	-44	-29	—	Y	Dry	N	
Mudge A002	↓	2	171.6	-50	—	—	Y	Below Port	N	

Notes:

SVE - Soil Vapor Extraction
 OVM - Organic Vapor Monitoring
 ppm- parts per million
 H2O"- inches water
 cfm- cubic feet per minute
 bTOD- below top of drum



SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	7/7/23	1	8.0	-34	-44	—	Y	Dry	N	
Florence		2	64.9	Broken	—	—	Y	Dry	N	
Sandoval		1	5.7	Broken	Broken	3889.3	Y	Dry	N	3889.3 hrs
Jacquez		3	88.7	-24	—	2351.8	Y	Dry	N	2351.8 hrs
AL Elliott		5	92.1	-11	-12	3333.9	Y	Dry	N	3333.9 hrs
GCU H 180		All	—	—	—	6071.9	Y	—	—	175°F 2.4 PSI 6071.9 hrs
Heaton		unk	118.6	-52	—	—	Y	Dry	N	
Mudge B12R		1	99.3	-44	-30	—	Y	Dry	N	
Mudge A002	✓	2	153.3	-50	—	—	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H ₂ O")	Vacuum Pressure downstream of drum (H ₂ O")	Run Time (Hours)	System Operational at Arrival?	Drum H ₂ O (inches bTOD)	Drum Drained?	Comments
Atlantic	8-9-23	1	7.8	-35	-46	-	Y	Dry	N	
Florence		2	85.2	-3	-	-	Y	Dry	N	
Sandoval		1	7.6	Broken	Broken	4679.6	Y	Dry	N	
Jacquez		3	115.3	-24	-	3137.9	Y	Dry	N	
AL Elliott		5	83.8	-9	-12	4128.0	Y	Dry	N	
GCU H180		All	-	-	-	6688.3	Y	-	-	165°F 2.5 psi; 1.2.5psi) 2. 2psi) 3. 2.2psi) 4. 2.4 psi;
Horton		unk	104.2	-52	-	-	Y	Dry	N	
Mudge B12R		1	75.9	-44	-30	-	Y	Dry	N	
Mudge A002		2	354.9	-50	-	-	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H₂O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	9-7-23	1	1.1	-35	-46	-	Y	Dry	No	
Florance GC J 16		2	26.8	-3	-	-	Y	Dry	No	
Sandoval GC A 1A		3	3.7	Broken	Broken	5375.3	Y	Dry	No	
Jacquez GC B 3E		1	41.1	-24	-	3833.6	Y	Dry	No	
Al Elliot D 002		5	35.6	-10	-12	4744.2	Y	Dry	No	
GCU H180		All	-	-	-	7384.3	Y	-	-	190°F 1) 1.8 psi 2) 0.7 psi 3) 2.5 psi 4) 2.0 psi 5) 1.5 psi
Heaton LS 5		Unk	81.5	-54	-	-	Y	Dry	No	#3 A leak could be heard from Valve
Mudge B12 R		1	42.8	-44	-30	-	Y	Dry	No	
Mudge A 002 MV	V	2	228.6	-51	-	-	Y	Dry	No	

Notes:

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 H2O"- inches water
 cfm- cubic feet per minute
 bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H ₂ O")	Vacuum Pressure downstream of drum (H ₂ O")	Run Time (Hours)	System Operational at Arrival?	Drum H ₂ O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	10-18-2023	1	201.5	-36	-46	-	Y	31.5 2	N	Water below drain level
Florance GC J 16		2	156.8	-6	-	-	Y	22.25	Y	Leaking from basket on drain valve
Sandoval GC A 1A		3	48.6	Broken	0	6358.6	Y	29.5	Y	
Jacquez GC B 3E		1	227.5	-24	-	4817.4	Y	25.5	Y	
Al Elliot D 002		5	93.7	-10	-14	5354.9	Y	29.25	Y	
GCU H180		All	-	-	-	8368.2	Y	-	-	140°F 2.0 PSI 1)0.0 2)0.0 3)0.0 4)0.0
Heaton LS 5		Unk	123.4	-54	-	-	Y	Day	N	The tubing at Vacuum Station #2 is damaged and leaking
Mudge B12 R	✓	1	103.6	-45	-30	-	Y	29.75	Y	
Mudge A 002 MV		2	327.2	-52	-	-	Y	Day	N	

Notes:

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cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	11-15-23	1	2.7	-36	-46	-	Y	Dry	N	
Florance GC J 16	11-15-23	2	0.7	-4(inhg)	-	-	N	Dry	N	
Sandoval GC A 1A	11-15-23	3	103.1	-20(lps)	Broken	6,540	N	22.5	Y	Replace gauge with -30(inhg) / -100(lps) gauge
Jacquez GC B 3E	11-15-23	1	30.2	-26	-	5,326	Y	20.5	Y	
Al Elliot D 002	11-15-23	5	37.8	-10	-12	5,775	Y	Dry	N	
GCU H180	11-14-23	All	-	-	-	-	N	-	-	Motor sounded rough with clicking sound upon restarting. SVE point leak fixed.
Heaton LS 5	11-14-23	Unk	75.2	-32	-	-	Y	Dry	N	
Mudge B12 R	11-14-23	1	35.7	-46	-12	-	Y	21.0	Y	Drum leaking at PVC connection.
Mudge A 002 MV	11-14-23	2	150.1	-40	-	-	Y	Dry	N	

100°F 2.7 ps.
1) 1.0 2) 1.25
3) 2.5 4) 0.5

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	12/15/23	1	19.3	-40	-50	-	Yes	26	Y	
Florance GC J 16	12/15/23	2	4.0 60.3	-4.0	-	-	Yes	29	Y	Drum loadout leaking from gasket
Sandoval GC A 1A	12/15/23 12/15/23	3	135.8	3.0	0	7238.4	Yes	19	Y	
Jacquez GC B 3E	12/15/23	1	1.4	-2	-	Not Readable	Yes	29	Y	
Al Elliot D 002	12/15/23	5	110.3	-10	-10	6269.5	Yes	21.5	Y	
GCU H180	12/14/23	All	-	-	-	8656.4	8656.4 No	-	-	Not Running on arrival. sounds like its not running properly
Heaton LS 5	12/14/23	Unk	101.5	34	-	-	Yes	29	Y	
Mudge B12 R	12/14/23	1	180.6	-40	-10	-	Yes	30	Y	
Mudge A 002 MV	12/15/23	2	108.2	-50	30 05	-	Yes	-	-	Dry

Notes:

SVE - Soil Vapor Extraction
OVM - Organic Vapor Monitoring
ppm- parts per million
H2O"- inches water
cfm- cubic feet per minute
bTOD- below top of drum

at 85°F
152.0
all other
psi indicators
@ 0.0

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 301708

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID:
	329736
	Action Number:
	301708
Action Type:	
[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)	

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Mudge B #012R Annual Gas Sampling Results 2023 and groundwater monitoring results have been accepted for the record, gw also sampled quarterly in 2023. Field notes are included.	3/29/2024