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23 March 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Mudge LS #006

Enclosed are the results of analyses for samples received by the laboratory on 03/10/23 12:50. 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, appearing to read 'Jeremy D. Allen', is written in a cursive style.

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



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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #1	2303124-01	Water	03/10/23 11:30	03/10/23 12:50	

Green Analytical Laboratories

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

Jeremy D Allen, Laboratory Director

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

MW #1

2303124-01 (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*	<0.004	0.025	0.004	mg/L	50	03/21/23 11:52	8260B		MS
Chloromethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
Vinyl chloride*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
Bromomethane*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
Chloroethane*	<0.006	0.025	0.006	mg/L	50	03/21/23 11:52	8260B		MS
Trichlorofluoromethane*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
1,1-Dichloroethene*	<0.008	0.025	0.008	mg/L	50	03/21/23 11:52	8260B		MS
Carbon disulfide*	0.032	0.050	0.014	mg/L	50	03/21/23 11:52	8260B	J	MS
Iodomethane	<0.007	0.050	0.007	mg/L	50	03/21/23 11:52	8260B		MS
Acrolein*	<0.035	0.250	0.035	mg/L	50	03/21/23 11:52	8260B		MS
Methylene chloride*	<0.016	0.025	0.016	mg/L	50	03/21/23 11:52	8260B		MS
Acetone*	<0.289	0.500	0.289	mg/L	50	03/21/23 11:52	8260B		MS
trans-1,2-Dichloroethene*	<0.009	0.025	0.009	mg/L	50	03/21/23 11:52	8260B		MS
Methyl t-Butyl Ether*	<0.013	0.050	0.013	mg/L	50	03/21/23 11:52	8260B		MS
1,1-Dichloroethane*	<0.004	0.025	0.004	mg/L	50	03/21/23 11:52	8260B		MS
Acrylonitrile*	<0.076	0.100	0.076	mg/L	50	03/21/23 11:52	8260B		MS
Vinyl acetate*	<0.018	0.025	0.018	mg/L	50	03/21/23 11:52	8260B		MS
cis-1,2-Dichloroethene*	<0.005	0.025	0.005	mg/L	50	03/21/23 11:52	8260B		MS
2,2-Dichloropropane*	<0.015	0.025	0.015	mg/L	50	03/21/23 11:52	8260B		MS
Bromochloromethane*	<0.004	0.025	0.004	mg/L	50	03/21/23 11:52	8260B		MS
Chloroform*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
Carbon tetrachloride*	<0.006	0.025	0.006	mg/L	50	03/21/23 11:52	8260B		MS
1,1,1-Trichloroethane*	<0.006	0.025	0.006	mg/L	50	03/21/23 11:52	8260B		MS
1,1-Dichloropropene*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
2-Butanone*	<0.083	0.100	0.083	mg/L	50	03/21/23 11:52	8260B		MS
Benzene*	1.46	0.025	0.004	mg/L	50	03/21/23 11:52	8260B		MS
1,2-Dichloroethane*	<0.007	0.025	0.007	mg/L	50	03/21/23 11:52	8260B		MS
Trichloroethene*	<0.008	0.025	0.008	mg/L	50	03/21/23 11:52	8260B		MS
Dibromomethane*	<0.008	0.025	0.008	mg/L	50	03/21/23 11:52	8260B		MS
1,2-Dichloropropane*	<0.007	0.025	0.007	mg/L	50	03/21/23 11:52	8260B		MS
Bromodichloromethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
cis-1,3-Dichloropropene*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS

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Jeremy D Allen, Laboratory Director

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

MW #1

2303124-01 (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

Toluene*	4.38	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
4-Methyl-2-pentanone*	<0.007	0.050	0.007	mg/L	50	03/21/23 11:52	8260B		MS
Tetrachloroethene*	<0.005	0.025	0.005	mg/L	50	03/21/23 11:52	8260B		MS
trans-1,3-Dichloropropene*	<0.004	0.025	0.004	mg/L	50	03/21/23 11:52	8260B		MS
1,1,2-Trichloroethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
Dibromochloromethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
1,3-Dichloropropane*	<0.0006	0.025	0.0006	mg/L	50	03/21/23 11:52	8260B		MS
1,2-Dibromoethane*	<0.006	0.025	0.006	mg/L	50	03/21/23 11:52	8260B		MS
2-Hexanone*	<0.005	0.050	0.005	mg/L	50	03/21/23 11:52	8260B		MS
Chlorobenzene*	<0.001	0.025	0.001	mg/L	50	03/21/23 11:52	8260B		MS
Ethylbenzene*	0.737	0.025	0.004	mg/L	50	03/21/23 11:52	8260B		MS
1,1,1,2-Tetrachloroethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
m+p - Xylene*	5.33	0.050	0.023	mg/L	50	03/21/23 11:52	8260B		MS
o-Xylene*	1.45	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
Total Xylenes*	6.79	0.050	0.027	mg/L	50	03/21/23 11:52	8260B		MS
Bromoform*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
Styrene*	<0.0008	0.025	0.0008	mg/L	50	03/21/23 11:52	8260B		MS
Isopropylbenzene*	0.117	0.025	0.001	mg/L	50	03/21/23 11:52	8260B		MS
Bromobenzene*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
n-Propylbenzene*	0.123	0.025	0.0006	mg/L	50	03/21/23 11:52	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
2-Chlorotoluene*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
1,2,3-trichloropropane*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
1,3,5-Trimethylbenzene*	0.427	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
trans-1,4-Dichloro-2-butene	<0.294	0.500	0.294	mg/L	50	03/21/23 11:52	8260B		MS
4-Chlorotoluene*	<0.001	0.025	0.001	mg/L	50	03/21/23 11:52	8260B		MS
tert-Butylbenzene*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
1,2,4-Trimethylbenzene*	1.06	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
sec-Butylbenzene*	0.024	0.025	0.0009	mg/L	50	03/21/23 11:52	8260B	J	MS
p-Isopropyltoluene*	0.071	0.025	0.001	mg/L	50	03/21/23 11:52	8260B		MS
1,3-Dichlorobenzene*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
1,4 Dichlorobenzene*	<0.002	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS

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Jeremy D Allen, Laboratory Director

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

MW #1

2303124-01 (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

n-Butylbenzene*	<0.001	0.025	0.001	mg/L	50	03/21/23 11:52	8260B		MS
1,2-Dichlorobenzene*	<0.003	0.025	0.003	mg/L	50	03/21/23 11:52	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.012	0.025	0.012	mg/L	50	03/21/23 11:52	8260B		MS
Hexachlorobutadiene*	<0.005	0.025	0.005	mg/L	50	03/21/23 11:52	8260B		MS
1,2,4-Trichlorobenzene*	<0.004	0.025	0.004	mg/L	50	03/21/23 11:52	8260B		MS
Naphthalene*	0.240	0.025	0.002	mg/L	50	03/21/23 11:52	8260B		MS
1,2,3-Trichlorobenzene*	<0.005	0.025	0.005	mg/L	50	03/21/23 11:52	8260B		MS
1,4-Dioxane	<1.43	5.00	1.43	mg/L	50	03/21/23 11:52	8260B		MS
Surrogate: Dibromofluoromethane			106 %	82.4-141		03/21/23 11:52	8260B		MS
Surrogate: Toluene-d8			94.6 %	87.1-110		03/21/23 11:52	8260B		MS
Surrogate: 4-Bromofluorobenzene			101 %	76.4-114		03/21/23 11:52	8260B		MS

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Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

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 3031706 - Volatiles

Blank (3031706-BLK1)

Prepared: 03/17/23 Analyzed: 03/20/23

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	0.0229		mg/L	0.0250	91.8	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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Project: VOC 8260
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Reported:
03/23/23 12:25

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 3031706 - Volatiles (Continued)

Blank (3031706-BLK1) (Continued)

Prepared: 03/17/23 Analyzed: 03/20/23

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>0.0270</i>		mg/L	<i>0.0250</i>		<i>108</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 t-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>0.0246</i>		mg/L	<i>0.0250</i>		<i>98.4</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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Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

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 3031706 - Volatiles (Continued)

LCS (3031706-BS1)

Prepared: 03/17/23 Analyzed: 03/20/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		97.5	89.5-111			
1,1,1-Trichloroethane	0.021	0.0005	mg/L	0.0200		104	85.1-117			
1,1,2,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		90.2	68.8-127			
1,1,2-Trichloroethane	0.018	0.0005	mg/L	0.0200		87.6	77.4-118			
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		95.2	78.1-121			
1,1-Dichloroethene	0.019	0.0005	mg/L	0.0200		93.2	64-124			
1,1-Dichloropropene	0.019	0.0005	mg/L	0.0200		95.1	81-122			
1,2,3-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		86.0	85.7-115			
1,2,4-Trichlorobenzene	0.015	0.0005	mg/L	0.0200		76.8	83.5-117			BS2
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		94.0	78.4-126			
1,2-Dibromo-3-chloropropane	0.018	0.0005	mg/L	0.0200		89.0	77.2-116			
1,2-Dibromoethane	0.019	0.0005	mg/L	0.0200		94.0	88.6-113			
1,2-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		90.4	86.5-111			
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		90.6	75.6-120			
1,2-Dichloropropane	0.020	0.0005	mg/L	0.0200		98.1	76.8-121			
1,3,5-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		93.1	79.2-127			
1,3-Dichlorobenzene	0.019	0.0005	mg/L	0.0200		93.4	87.7-112			
1,3-Dichloropropane	0.018	0.0005	mg/L	0.0200		91.7	82.1-119			
1,4 Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.0	85.2-111			
1,4-Dioxane	0.347	0.100	mg/L	0.400		86.7	-34.9-102			
1,2,3-trichloropropane	0.018	0.0005	mg/L	0.0200		87.8	53.2-135			
2,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		89.8	74.3-136			
2-Butanone	0.036	0.002	mg/L	0.0400		90.0	65.6-132			
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		87.6	78.3-123			
2-Hexanone	0.031	0.001	mg/L	0.0400		78.5	66.6-126			
Surrogate: 4-Bromofluorobenzene	0.0237		mg/L	0.0250		95.0	76.4-114			
4-Chlorotoluene	0.019	0.0005	mg/L	0.0200		93.0	76.8-129			
4-Methyl-2-pentanone	0.033	0.001	mg/L	0.0400		81.4	67.7-128			
Acetone	0.036	0.010	mg/L	0.0400		91.0	54.3-140			
Acrolein	0.142	0.005	mg/L	0.200		71.0	29.4-149			
Acrylonitrile	0.034	0.002	mg/L	0.0400		85.2	60.8-143			
Benzene	0.020	0.0005	mg/L	0.0200		99.3	82.7-115			
Bromobenzene	0.019	0.0005	mg/L	0.0200		93.1	85.1-112			
Bromochloromethane	0.018	0.0005	mg/L	0.0200		89.6	77.8-118			
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		101	82.7-118			
Bromoform	0.017	0.0005	mg/L	0.0200		84.2	76.1-133			
Bromomethane	0.018	0.0005	mg/L	0.0200		89.2	61.1-126			
Carbon disulfide	0.036	0.001	mg/L	0.0400		90.3	67.2-128			
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		104	89.7-117			

Green Analytical Laboratories

Jeremy D Allen, Laboratory Director

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

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 3031706 - Volatiles (Continued)

LCS (3031706-BS1) (Continued)

Prepared: 03/17/23 Analyzed: 03/20/23

Chlorobenzene	0.020	0.0005	mg/L	0.0200		97.8	86.2-112			
Chloroethane	0.017	0.0005	mg/L	0.0200		86.3	62.4-125			
Chloroform	0.019	0.0005	mg/L	0.0200		95.0	86.7-115			
Chloromethane	0.018	0.0005	mg/L	0.0200		92.0	47.1-145			
cis-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		88.0	76-117			
cis-1,3-Dichloropropene	0.016	0.0005	mg/L	0.0200		80.4	80.9-123			BS2
Dibromochloromethane	0.020	0.0005	mg/L	0.0200		101	88.7-121			
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0263</i>		mg/L	<i>0.0250</i>		<i>105</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		93.0	86.4-114			
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		87.8	36.1-160			
Ethylbenzene	0.019	0.0005	mg/L	0.0200		93.8	84.3-117			
Hexachlorobutadiene	0.021	0.0005	mg/L	0.0200		105	94.3-116			
Iodomethane	0.040	0.001	mg/L	0.0400		99.4	77.4-124			
Isopropylbenzene	0.019	0.0005	mg/L	0.0200		94.1	88.1-114			
m+p - Xylene	0.039	0.001	mg/L	0.0400		96.4	85.9-122			
Methyl t-Butyl Ether	0.034	0.001	mg/L	0.0400		85.4	78.9-118			
Methylene chloride	0.020	0.0005	mg/L	0.0200		99.1	64.2-134			
Naphthalene	0.016	0.0005	mg/L	0.0200		78.6	80.6-121			BS2
n-Butylbenzene	0.017	0.0005	mg/L	0.0200		85.2	82.2-123			
n-Propylbenzene	0.018	0.0005	mg/L	0.0200		91.0	78.9-125			
o-Xylene	0.017	0.0005	mg/L	0.0200		86.8	85.6-112			
p-Isopropyltoluene	0.019	0.0005	mg/L	0.0200		92.6	82.5-123			
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		93.5	82.1-128			
Styrene	0.018	0.0005	mg/L	0.0200		89.0	78.3-117			
tert-Butylbenzene	0.020	0.0005	mg/L	0.0200		97.7	79.5-129			
Tetrachloroethene	0.020	0.0005	mg/L	0.0200		99.5	86.6-110			
Toluene	0.018	0.0005	mg/L	0.0200		90.6	82.8-112			
<i>Surrogate: Toluene-d8</i>	<i>0.0237</i>		mg/L	<i>0.0250</i>		<i>94.6</i>	<i>87.1-110</i>			
Total Xylenes	0.056	0.001	mg/L	0.0600		93.2	86.5-118			
trans-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		90.5	69.2-119			
trans-1,3-Dichloropropene	0.018	0.0005	mg/L	0.0200		90.7	77.4-131			
trans-1,4-Dichloro-2-butene	0.029	0.010	mg/L	0.0400		72.7	41.4-204			
Trichloroethene	0.018	0.0005	mg/L	0.0200		91.0	82.2-114			
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		101	78.2-126			
Vinyl acetate	0.013	0.0005	mg/L	0.0200		66.4	56.2-148			
Vinyl chloride	0.019	0.0005	mg/L	0.0200		92.8	62-135			

LCS Dup (3031706-BSD1)

Prepared: 03/17/23 Analyzed: 03/20/23

1,1,1,2-Tetrachloroethane	0.020	0.0005	mg/L	0.0200		98.2	89.5-111	0.664	6.88	
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Jeremy D Allen, Laboratory Director

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

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 3031706 - Volatiles (Continued)

LCS Dup (3031706-BSD1) (Continued)

Prepared: 03/17/23 Analyzed: 03/20/23

1,1,1-Trichloroethane	0.020	0.0005	mg/L	0.0200		102	85.1-117	1.41	7.43	
1,1,2,2-Tetrachloroethane	0.018	0.0005	mg/L	0.0200		87.6	68.8-127	2.93	8.68	
1,1,2-Trichloroethane	0.018	0.0005	mg/L	0.0200		91.2	77.4-118	4.14	6.82	
1,1-Dichloroethane	0.019	0.0005	mg/L	0.0200		93.5	78.1-121	1.80	4.3	
1,1-Dichloroethene	0.018	0.0005	mg/L	0.0200		91.4	64-124	1.95	16.5	
1,1-Dichloropropene	0.019	0.0005	mg/L	0.0200		95.7	81-122	0.629	5.47	
1,2,3-Trichlorobenzene	0.017	0.0005	mg/L	0.0200		86.8	85.7-115	0.868	43	
1,2,4-Trichlorobenzene	0.015	0.0005	mg/L	0.0200		76.6	83.5-117	0.261	22.3	BS2
1,2,4-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		95.4	78.4-126	1.43	8.94	
1,2-Dibromo-3-chloropropane	0.017	0.0005	mg/L	0.0200		84.7	77.2-116	4.89	15.1	
1,2-Dibromoethane	0.020	0.0005	mg/L	0.0200		97.6	88.6-113	3.76	5.83	
1,2-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.0	86.5-111	1.86	8.72	
1,2-Dichloroethane	0.018	0.0005	mg/L	0.0200		92.2	75.6-120	1.75	8.94	
1,2-Dichloropropane	0.019	0.0005	mg/L	0.0200		96.4	76.8-121	1.75	5.51	
1,3,5-Trimethylbenzene	0.019	0.0005	mg/L	0.0200		93.1	79.2-127	0.00	16.5	
1,3-Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.4	87.7-112	1.02	9	
1,3-Dichloropropane	0.019	0.0005	mg/L	0.0200		94.0	82.1-119	2.48	6.06	
1,4 Dichlorobenzene	0.018	0.0005	mg/L	0.0200		92.2	85.2-111	0.272	7.71	
1,4-Dioxane	0.339	0.100	mg/L	0.400		84.7	-34.9-102	2.36	35.2	
1,2,3-trichloropropane	0.017	0.0005	mg/L	0.0200		86.5	53.2-135	1.49	49.2	
2,2-Dichloropropane	0.018	0.0005	mg/L	0.0200		88.0	74.3-136	1.97	9.62	
2-Butanone	0.036	0.002	mg/L	0.0400		88.9	65.6-132	1.23	14.2	
2-Chlorotoluene	0.018	0.0005	mg/L	0.0200		88.8	78.3-123	1.36	8.62	
2-Hexanone	0.031	0.001	mg/L	0.0400		78.0	66.6-126	0.607	7.28	
Surrogate: 4-Bromofluorobenzene	0.0238		mg/L	0.0250		95.3	76.4-114			
4-Chlorotoluene	0.018	0.0005	mg/L	0.0200		89.9	76.8-129	3.39	15.5	
4-Methyl-2-pentanone	0.032	0.001	mg/L	0.0400		80.9	67.7-128	0.647	7.57	
Acetone	0.035	0.010	mg/L	0.0400		86.4	54.3-140	5.19	30.5	
Acrolein	0.130	0.005	mg/L	0.200		64.8	29.4-149	9.18	22.4	
Acrylonitrile	0.033	0.002	mg/L	0.0400		82.9	60.8-143	2.65	7.62	
Benzene	0.020	0.0005	mg/L	0.0200		100	82.7-115	0.802	4.16	
Bromobenzene	0.019	0.0005	mg/L	0.0200		93.9	85.1-112	0.856	8.41	
Bromochloromethane	0.018	0.0005	mg/L	0.0200		89.6	77.8-118	0.112	5.16	
Bromodichloromethane	0.020	0.0005	mg/L	0.0200		99.8	82.7-118	1.15	5.36	
Bromoform	0.014	0.0005	mg/L	0.0200		72.5	76.1-133	14.9	14.1	BS2, QR-04
Bromomethane	0.018	0.0005	mg/L	0.0200		88.5	61.1-126	0.788	21.5	
Carbon disulfide	0.034	0.001	mg/L	0.0400		85.6	67.2-128	5.40	20.3	
Carbon tetrachloride	0.021	0.0005	mg/L	0.0200		105	89.7-117	0.621	11.4	
Chlorobenzene	0.020	0.0005	mg/L	0.0200		99.2	86.2-112	1.37	5.18	

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Jeremy D Allen, Laboratory Director

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PO Box 1653
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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

VOLATILES BY GC/MS - Quality Control (Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3031706 - Volatiles (Continued)										
LCS Dup (3031706-BSD1) (Continued)										
Prepared: 03/17/23 Analyzed: 03/20/23										
Chloroethane	0.017	0.0005	mg/L	0.0200		85.7	62.4-125	0.698	24.1	
Chloroform	0.019	0.0005	mg/L	0.0200		95.2	86.7-115	0.210	5.15	
Chloromethane	0.020	0.0005	mg/L	0.0200		98.1	47.1-145	6.31	27	
cis-1,2-Dichloroethene	0.017	0.0005	mg/L	0.0200		84.6	76-117	4.00	5.73	
cis-1,3-Dichloropropene	0.016	0.0005	mg/L	0.0200		77.9	80.9-123	3.16	6.09	BS2
Dibromochloromethane	0.019	0.0005	mg/L	0.0200		95.0	88.7-121	5.83	7.24	
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0264</i>		mg/L	<i>0.0250</i>		<i>106</i>	<i>82.4-141</i>			
Dibromomethane	0.019	0.0005	mg/L	0.0200		93.4	86.4-114	0.483	5.75	
Dichlorodifluoromethane	0.018	0.0005	mg/L	0.0200		87.6	36.1-160	0.171	22.6	
Ethylbenzene	0.019	0.0005	mg/L	0.0200		95.6	84.3-117	1.85	4.83	
Hexachlorobutadiene	0.020	0.0005	mg/L	0.0200		99.2	94.3-116	6.16	18.4	
Iodomethane	0.039	0.001	mg/L	0.0400		97.2	77.4-124	2.24	24.3	
Isopropylbenzene	0.020	0.0005	mg/L	0.0200		97.8	88.1-114	3.91	6.25	
m+p - Xylene	0.040	0.001	mg/L	0.0400		99.2	85.9-122	2.84	5.77	
Methyl t-Butyl Ether	0.034	0.001	mg/L	0.0400		85.4	78.9-118	0.0293	12.8	
Methylene chloride	0.019	0.0005	mg/L	0.0200		95.8	64.2-134	3.44	19.7	
Naphthalene	0.016	0.0005	mg/L	0.0200		77.5	80.6-121	1.47	33.5	BS2
n-Butylbenzene	0.017	0.0005	mg/L	0.0200		82.6	82.2-123	3.22	10.1	
n-Propylbenzene	0.018	0.0005	mg/L	0.0200		90.8	78.9-125	0.330	9.09	
o-Xylene	0.018	0.0005	mg/L	0.0200		89.5	85.6-112	3.01	6.29	
p-Isopropyltoluene	0.018	0.0005	mg/L	0.0200		91.5	82.5-123	1.19	9.26	
sec-Butylbenzene	0.019	0.0005	mg/L	0.0200		93.4	82.1-128	0.107	9.85	
Styrene	0.017	0.0005	mg/L	0.0200		87.2	78.3-117	2.04	7.55	
tert-Butylbenzene	0.019	0.0005	mg/L	0.0200		95.6	79.5-129	2.23	18.6	
Tetrachloroethene	0.021	0.0005	mg/L	0.0200		103	86.6-110	3.02	6.38	
Toluene	0.018	0.0005	mg/L	0.0200		90.4	82.8-112	0.221	5.67	
<i>Surrogate: Toluene-d8</i>	<i>0.0238</i>		mg/L	<i>0.0250</i>		<i>95.2</i>	<i>87.1-110</i>			
Total Xylenes	0.058	0.001	mg/L	0.0600		96.0	86.5-118	2.89	5.83	
trans-1,2-Dichloroethene	0.018	0.0005	mg/L	0.0200		89.4	69.2-119	1.28	19.1	
trans-1,3-Dichloropropene	0.017	0.0005	mg/L	0.0200		85.0	77.4-131	6.49	6.26	QR-04
trans-1,4-Dichloro-2-butene	0.013	0.010	mg/L	0.0400		32.7	41.4-204	76.0	92.8	BS2
Trichloroethene	0.019	0.0005	mg/L	0.0200		93.8	82.2-114	2.98	4.92	
Trichlorofluoromethane	0.020	0.0005	mg/L	0.0200		102	78.2-126	0.639	19.8	
Vinyl acetate	0.013	0.0005	mg/L	0.0200		64.2	56.2-148	3.29	7.84	
Vinyl chloride	0.019	0.0005	mg/L	0.0200		94.5	62-135	1.76	23	

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 LS #006
Project Manager: Kyle Siesser

Reported:
03/23/23 12:25

Notes and Definitions

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

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

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

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

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood Consulting LLCWork Order # 2303-624
+ -125Courier: ☐ 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: 10.0 °C Correction Factor: 0 °C Final Temp: 10.0 °C

*Temp should be above freezing to 6°C

Date/Initials of person
examining contents: VJW 3/10/23Labeled 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:	☒ Yes ☐ No	12.
-Includes Date/Time/ID		
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: _____



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970.247.4220 Phone
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06 July 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Mudge LS #006

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



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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #1	2306226-01	Water	06/21/23 10:55	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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Page 2 of 14 2306226 GAL FINAL 07 06 23 0848 07/06/23 08:48:20



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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

MW #1

2306226-01 (Ground Water)

Sampled Date: 06/21/23 10:55

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*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
Chloromethane*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
Vinyl chloride*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
Bromomethane*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
Chloroethane*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
Trichlorofluoromethane*	<0.250	0.250	0.066	mg/L	500	07/03/23 17:19	8260B		MS
1,1-Dichloroethene*	<0.250	0.250	0.020	mg/L	500	07/03/23 17:19	8260B		MS
Carbon disulfide*	<0.500	0.500	0.049	mg/L	500	07/03/23 17:19	8260B		MS
Iodomethane	<0.500	0.500	0.028	mg/L	500	07/03/23 17:19	8260B		MS
Acrolein*	<2.50	2.50	0.256	mg/L	500	07/03/23 17:19	8260B		MS
Methylene chloride*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
Acetone*	<5.00	5.00	0.428	mg/L	500	07/03/23 17:19	8260B		MS
trans-1,2-Dichloroethene*	<0.250	0.250	0.050	mg/L	500	07/03/23 17:19	8260B		MS
Methyl tert-butyl ether	<0.500	0.500	0.015	mg/L	500	07/03/23 17:19	8260B		MS
1,1-Dichloroethane*	<0.250	0.250	0.032	mg/L	500	07/03/23 17:19	8260B		MS
Acrylonitrile*	<1.00	1.00	0.071	mg/L	500	07/03/23 17:19	8260B		MS
Vinyl acetate*	<0.250	0.250	0.042	mg/L	500	07/03/23 17:19	8260B		MS
cis-1,2-Dichloroethene*	<0.250	0.250	0.123	mg/L	500	07/03/23 17:19	8260B		MS
2,2-Dichloropropane*	<0.250	0.250	0.082	mg/L	500	07/03/23 17:19	8260B		MS
Bromochloromethane*	<0.250	0.250	0.052	mg/L	500	07/03/23 17:19	8260B		MS
Chloroform*	<0.250	0.250	0.008	mg/L	500	07/03/23 17:19	8260B		MS
Carbon tetrachloride*	<0.250	0.250	0.075	mg/L	500	07/03/23 17:19	8260B		MS
1,1,1-Trichloroethane*	<0.250	0.250	0.031	mg/L	500	07/03/23 17:19	8260B		MS
1,1-Dichloropropene*	<0.250	0.250	0.079	mg/L	500	07/03/23 17:19	8260B		MS
2-Butanone*	<1.00	1.00	0.257	mg/L	500	07/03/23 17:19	8260B		MS
Benzene*	4.56	0.250	0.020	mg/L	500	07/03/23 17:19	8260B		MS
1,2-Dichloroethane*	<0.250	0.250	0.027	mg/L	500	07/03/23 17:19	8260B		MS
Trichloroethene*	<0.250	0.250	0.086	mg/L	500	07/03/23 17:19	8260B		MS
Dibromomethane*	<0.250	0.250	0.083	mg/L	500	07/03/23 17:19	8260B		MS
1,2-Dichloropropane*	<0.250	0.250	0.036	mg/L	500	07/03/23 17:19	8260B		MS
Bromodichloromethane*	<0.250	0.250	0.019	mg/L	500	07/03/23 17:19	8260B		MS
cis-1,3-Dichloropropene*	<0.250	0.250	0.044	mg/L	500	07/03/23 17:19	8260B		MS

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Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

MW #1

2306226-01 (Ground Water)

Sampled Date: 06/21/23 10:55

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*	15.8	0.250	0.008	mg/L	500	07/03/23 17:19	8260B		MS
4-Methyl-2-pentanone*	<0.500	0.500	0.058	mg/L	500	07/03/23 17:19	8260B		MS
Tetrachloroethene*	<0.250	0.250	0.018	mg/L	500	07/03/23 17:19	8260B		MS
trans-1,3-Dichloropropene*	<0.250	0.250	0.024	mg/L	500	07/03/23 17:19	8260B		MS
1,1,2-Trichloroethane*	<0.250	0.250	0.021	mg/L	500	07/03/23 17:19	8260B		MS
Dibromochloromethane*	<0.250	0.250	0.041	mg/L	500	07/03/23 17:19	8260B		MS
1,3-Dichloropropane*	<0.250	0.250	0.066	mg/L	500	07/03/23 17:19	8260B		MS
1,2-Dibromoethane*	<0.250	0.250	0.011	mg/L	500	07/03/23 17:19	8260B		MS
2-Hexanone*	<0.500	0.500	0.160	mg/L	500	07/03/23 17:19	8260B		MS
Chlorobenzene*	<0.250	0.250	0.014	mg/L	500	07/03/23 17:19	8260B		MS
Ethylbenzene*	1.88	0.250	0.015	mg/L	500	07/03/23 17:19	8260B		MS
1,1,1,2-Tetrachloroethane*	<0.250	0.250	0.031	mg/L	500	07/03/23 17:19	8260B		MS
m+p - Xylene*	13.6	0.500	0.019	mg/L	500	07/03/23 17:19	8260B		MS
o-Xylene*	3.17	0.250	0.063	mg/L	500	07/03/23 17:19	8260B		MS
Total Xylenes*	16.8	0.500	0.082	mg/L	500	07/03/23 17:19	8260B		MS
Bromoform*	<0.250	0.250	0.030	mg/L	500	07/03/23 17:19	8260B		MS
Styrene*	<0.250	0.250	0.060	mg/L	500	07/03/23 17:19	8260B		MS
Isopropylbenzene*	<0.250	0.250	0.008	mg/L	500	07/03/23 17:19	8260B		MS
Bromobenzene*	<0.250	0.250	0.011	mg/L	500	07/03/23 17:19	8260B		MS
n-Propylbenzene*	0.282	0.250	0.008	mg/L	500	07/03/23 17:19	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.250	0.250	0.021	mg/L	500	07/03/23 17:19	8260B		MS
2-Chlorotoluene*	<0.250	0.250	0.015	mg/L	500	07/03/23 17:19	8260B		MS
1,2,3-trichloropropane*	<0.250	0.250	0.055	mg/L	500	07/03/23 17:19	8260B		MS
1,3,5-Trimethylbenzene*	0.814	0.250	0.008	mg/L	500	07/03/23 17:19	8260B		MS
trans-1,4-Dichloro-2-butene	<5.00	5.00	0.074	mg/L	500	07/03/23 17:19	8260B		MS
4-Chlorotoluene*	<0.250	0.250	0.008	mg/L	500	07/03/23 17:19	8260B		MS
tert-Butylbenzene*	<0.250	0.250	0.036	mg/L	500	07/03/23 17:19	8260B		MS
1,2,4-Trimethylbenzene*	1.67	0.250	0.017	mg/L	500	07/03/23 17:19	8260B		MS
sec-Butylbenzene*	<0.250	0.250	0.006	mg/L	500	07/03/23 17:19	8260B		MS
p-Isopropyltoluene*	<0.250	0.250	0.020	mg/L	500	07/03/23 17:19	8260B		MS
1,3-Dichlorobenzene*	<0.250	0.250	0.008	mg/L	500	07/03/23 17:19	8260B		MS
1,4 Dichlorobenzene*	<0.250	0.250	0.016	mg/L	500	07/03/23 17:19	8260B		MS

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Veronica Wells, Project Manager

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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

MW #1

2306226-01 (Ground Water)

Sampled Date: 06/21/23 10:55

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*	<0.250	0.250	0.028	mg/L	500	07/03/23 17:19	8260B		MS
1,2-Dichlorobenzene*	<0.250	0.250	0.023	mg/L	500	07/03/23 17:19	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
Hexachlorobutadiene*	<0.250	0.250	0.250	mg/L	500	07/03/23 17:19	8260B		MS
1,2,4-Trichlorobenzene*	<0.250	0.250	0.034	mg/L	500	07/03/23 17:19	8260B		MS
Naphthalene*	<0.250	0.250	0.027	mg/L	500	07/03/23 17:19	8260B		MS
1,2,3-Trichlorobenzene*	<0.250	0.250	0.115	mg/L	500	07/03/23 17:19	8260B		MS
1,4-Dioxane	<5.00	5.00	5.00	mg/L	500	07/03/23 17:19	8260B		MS
Surrogate: Dibromofluoromethane			102 %	82.4-141		07/03/23 17:19	8260B		MS
Surrogate: Toluene-d8			99.0 %	87.1-110		07/03/23 17:19	8260B		MS
Surrogate: 4-Bromofluorobenzene			94.3 %	76.4-114		07/03/23 17:19	8260B		MS

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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

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			

Green Analytical Laboratories

Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

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							
<i>Surrogate: Dibromofluoromethane</i>	<i>0.0261</i>		mg/L	<i>0.0250</i>		<i>104</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>0.0247</i>		mg/L	<i>0.0250</i>		<i>98.9</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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Veronica Wells, Project Manager

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Page 7 of 14 2306226 GAL FINAL 07 06 23 0848 07/06/23 08:48:20



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Cottonwood Consulting
PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

VOLATILES BY GC/MS - Quality Control (Continued)

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

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			

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 LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

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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Green Analytical Laboratories

Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

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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Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

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	

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 LS #006
Project Manager: Kyle Siesser

Reported:
07/06/23 08:48

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) 247-4227 75 Suttle St Durango, CO 81303

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

Analytical
Laboratories

SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2306-226Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ KangarooCustody Seals on Box/Cooler Present: ☐ Yes ☒ NoSeals Intact: ☐ Yes ☐ NoThermometer Used: #2Samples on Ice, cooling process has begun: ☒ Yes ☐ NoType of Ice: ☒ Wet ☐ Blue ☐ NoneCooler Temp: Observed Temp: 27 °CCorrection Factor: 0 °CFinal Temp: 27 °C

* Temp should be above freezing to 6°C

Date/Initials of person
examining contents: MPN 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 Matrix:	☒ Yes ☐ No <u>WT</u> <u>SL</u> <u>OT</u>	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: _____

FORM-039, Rev 1

Page 1 of 1



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05 October 2023

Kyle Siesser
Cottonwood Consulting
PO Box 1653
Durango, CO 81302
RE: Mudge LS #006

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: T104704514-23-18

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 LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #1	2309229-01	Water	09/20/23 13:10	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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Page 2 of 14 2309229 GAL FINAL 10 05 23 1505 10/05/23 15:05:09



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Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

MW #1

2309229-01 (Ground Water)

Sampled Date: 09/20/23 13:10

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*	<0.005	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Chloromethane*	<0.005	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Vinyl chloride*	<0.005	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Bromomethane*	<0.005	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Chloroethane*	<0.005	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Trichlorofluoromethane*	<0.005	0.005	0.001	mg/L	10	09/27/23 16:30	8260B		MS
1,1-Dichloroethene*	<0.005	0.005	0.0004	mg/L	10	09/27/23 16:30	8260B		MS
Carbon disulfide*	<0.010	0.010	0.001	mg/L	10	09/27/23 16:30	8260B		MS
Iodomethane	<0.010	0.010	0.0006	mg/L	10	09/27/23 16:30	8260B		MS
Acrolein*	<0.050	0.050	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Methylene chloride*	0.019	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Acetone*	<0.100	0.100	0.009	mg/L	10	09/27/23 16:30	8260B		MS
trans-1,2-Dichloroethene*	<0.005	0.005	0.001	mg/L	10	09/27/23 16:30	8260B		MS
Methyl tert-butyl ether	<0.010	0.010	0.0003	mg/L	10	09/27/23 16:30	8260B		MS
1,1-Dichloroethane*	<0.005	0.005	0.0006	mg/L	10	09/27/23 16:30	8260B		MS
Acrylonitrile*	<0.020	0.020	0.001	mg/L	10	09/27/23 16:30	8260B		MS
Vinyl acetate*	<0.005	0.005	0.0008	mg/L	10	09/27/23 16:30	8260B		MS
cis-1,2-Dichloroethene*	<0.005	0.005	0.002	mg/L	10	09/27/23 16:30	8260B		MS
2,2-Dichloropropane*	<0.005	0.005	0.002	mg/L	10	09/27/23 16:30	8260B		MS
Bromochloromethane*	<0.005	0.005	0.001	mg/L	10	09/27/23 16:30	8260B		MS
Chloroform*	<0.005	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
Carbon tetrachloride*	<0.005	0.005	0.001	mg/L	10	09/27/23 16:30	8260B		MS
1,1,1-Trichloroethane*	<0.005	0.005	0.0006	mg/L	10	09/27/23 16:30	8260B		MS
1,1-Dichloropropene*	<0.005	0.005	0.002	mg/L	10	09/27/23 16:30	8260B		MS
2-Butanone*	<0.020	0.020	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Benzene*	1.54	0.100	0.008	mg/L	200	10/04/23 12:57	8260B		MS
1,2-Dichloroethane*	<0.005	0.005	0.0005	mg/L	10	09/27/23 16:30	8260B		MS
Trichloroethene*	<0.005	0.005	0.002	mg/L	10	09/27/23 16:30	8260B		MS
Dibromomethane*	<0.005	0.005	0.002	mg/L	10	09/27/23 16:30	8260B		MS
1,2-Dichloropropane*	<0.005	0.005	0.0007	mg/L	10	09/27/23 16:30	8260B		MS
Bromodichloromethane*	<0.005	0.005	0.0004	mg/L	10	09/27/23 16:30	8260B		MS
cis-1,3-Dichloropropene*	<0.005	0.005	0.0009	mg/L	10	09/27/23 16:30	8260B		MS

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Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

MW #1

2309229-01 (Ground Water)

Sampled Date: 09/20/23 13:10

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*	6.67	0.100	0.003	mg/L	200	10/04/23 12:57	8260B		MS
4-Methyl-2-pentanone*	<0.010	0.010	0.001	mg/L	10	09/27/23 16:30	8260B		MS
Tetrachloroethene*	<0.005	0.005	0.0004	mg/L	10	09/27/23 16:30	8260B		MS
trans-1,3-Dichloropropene*	<0.005	0.005	0.0005	mg/L	10	09/27/23 16:30	8260B		MS
1,1,2-Trichloroethane*	<0.005	0.005	0.0004	mg/L	10	09/27/23 16:30	8260B		MS
Dibromochloromethane*	<0.005	0.005	0.0008	mg/L	10	09/27/23 16:30	8260B		MS
1,3-Dichloropropane*	<0.005	0.005	0.001	mg/L	10	09/27/23 16:30	8260B		MS
1,2-Dibromoethane*	<0.005	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
2-Hexanone*	<0.010	0.010	0.003	mg/L	10	09/27/23 16:30	8260B		MS
Chlorobenzene*	<0.005	0.005	0.0003	mg/L	10	09/27/23 16:30	8260B		MS
Ethylbenzene*	1.23	0.100	0.006	mg/L	200	10/04/23 12:57	8260B		MS
1,1,1,2-Tetrachloroethane*	<0.005	0.005	0.0006	mg/L	10	09/27/23 16:30	8260B		MS
m+p - Xylene*	6.41	0.200	0.008	mg/L	200	10/04/23 12:57	8260B		MS
o-Xylene*	1.92	0.100	0.025	mg/L	200	10/04/23 12:57	8260B		MS
Total Xylenes*	8.33	0.200	0.033	mg/L	200	10/04/23 12:57	8260B		MS
Bromoform*	<0.005	0.005	0.0006	mg/L	10	09/27/23 16:30	8260B		MS
Styrene*	<0.005	0.005	0.001	mg/L	10	09/27/23 16:30	8260B		MS
Isopropylbenzene*	0.153	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
Bromobenzene*	<0.005	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
n-Propylbenzene*	0.165	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.005	0.005	0.0004	mg/L	10	09/27/23 16:30	8260B		MS
2-Chlorotoluene*	<0.005	0.005	0.0003	mg/L	10	09/27/23 16:30	8260B		MS
1,2,3-trichloropropane*	<0.005	0.005	0.001	mg/L	10	09/27/23 16:30	8260B		MS
1,3,5-Trimethylbenzene*	0.671	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
trans-1,4-Dichloro-2-butene	<0.100	0.100	0.001	mg/L	10	09/27/23 16:30	8260B		MS
4-Chlorotoluene*	<0.005	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
tert-Butylbenzene*	<0.005	0.005	0.0007	mg/L	10	09/27/23 16:30	8260B		MS
1,2,4-Trimethylbenzene*	0.834	0.100	0.007	mg/L	200	10/04/23 12:57	8260B		MS
sec-Butylbenzene*	0.027	0.005	0.0001	mg/L	10	09/27/23 16:30	8260B		MS
p-Isopropyltoluene*	0.073	0.005	0.0004	mg/L	10	09/27/23 16:30	8260B		MS
1,3-Dichlorobenzene*	<0.005	0.005	0.0002	mg/L	10	09/27/23 16:30	8260B		MS
1,4 Dichlorobenzene*	<0.005	0.005	0.0003	mg/L	10	09/27/23 16:30	8260B		MS

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Veronica Wells, Project Manager

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PO Box 1653
Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

MW #1**2309229-01 (Ground Water)****Sampled Date: 09/20/23 13:10**

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*	0.005	0.005	0.0006	mg/L	10	09/27/23 16:30	8260B		MS
1,2-Dichlorobenzene*	<0.005	0.005	0.0005	mg/L	10	09/27/23 16:30	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.005	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
Hexachlorobutadiene*	<0.005	0.005	0.005	mg/L	10	09/27/23 16:30	8260B		MS
1,2,4-Trichlorobenzene*	<0.005	0.005	0.0007	mg/L	10	09/27/23 16:30	8260B		MS
Naphthalene*	0.157	0.005	0.0005	mg/L	10	09/27/23 16:30	8260B		MS
1,2,3-Trichlorobenzene*	<0.005	0.005	0.002	mg/L	10	09/27/23 16:30	8260B		MS
1,4-Dioxane	<0.100	0.100	0.100	mg/L	10	09/27/23 16:30	8260B		MS
Surrogate: Dibromofluoromethane			87.3 %	82.4-141		09/27/23 16:30	8260B		MS
Surrogate: Toluene-d8			103 %	87.1-110		09/27/23 16:30	8260B		MS
Surrogate: 4-Bromofluorobenzene			116 %	76.4-114		09/27/23 16:30	8260B	S-04	MS

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

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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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

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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Veronica Wells, Project Manager

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Page 7 of 14 2309229 GAL FINAL 10 05 23 1505 10/05/23 15:05:09



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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

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 (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			

Green Analytical Laboratories

Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

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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Durango CO, 81302

Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

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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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

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	

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Veronica Wells, Project Manager

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Project: VOC 8260
Project Name / Number: Mudge LS #006
Project Manager: Kyle Siesser

Reported:
10/05/23 15:05

Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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

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

Veronica Wells, Project Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



SAMPLE CONDITION RECEIPT FORM

Client Name: Cottonwood ConsultingWork Order # 2309.229Courier: ☐ 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: 0 °C Final Temp: 20.0 °C

* Temp should be above freezing to 6°C

Date/Initials of person
examining contents: 9/20/23
2Labeled 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: _____



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 LS #006

Enclosed are the results of analyses for samples received by the laboratory on 12/15/23 14:20. 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 style and is contained within a light gray rectangular box.

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
MW #1	2312146-01	Water	12/15/23 09:35	12/15/23 14:20	

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

MW #1

2312146-01 (Ground Water)

Sampled Date: 12/15/23 09:35

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

1,1,1,2-Tetrachloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 13:20	8260B		MS
1,1,1-Trichloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 13:20	8260B		MS
1,1,2,2-Tetrachloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 13:20	8260B		MS
1,1,2-Trichloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 13:20	8260B		MS
1,1-Dichloroethane*	<0.050	0.050	0.015	mg/L	100	12/22/23 13:20	8260B		MS
1,1-Dichloroethene*	<0.050	0.050	0.019	mg/L	100	12/22/23 13:20	8260B		MS
1,1-Dichloropropene*	<0.050	0.050	0.016	mg/L	100	12/22/23 13:20	8260B		MS
1,2,3-Trichlorobenzene*	<0.050	0.050	0.023	mg/L	100	12/22/23 13:20	8260B		MS
1,2,4-Trichlorobenzene*	<0.050	0.050	0.013	mg/L	100	12/22/23 13:20	8260B		MS
1,2,4-Trimethylbenzene*	0.840	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
1,2-Dibromo-3-chloropropane*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
1,2-Dibromoethane*	<0.050	0.050	0.009	mg/L	100	12/22/23 13:20	8260B		MS
1,2-Dichlorobenzene*	<0.050	0.050	0.007	mg/L	100	12/22/23 13:20	8260B		MS
1,2-Dichloroethane*	<0.050	0.050	0.006	mg/L	100	12/22/23 13:20	8260B		MS
1,2-Dichloropropane*	<0.050	0.050	0.008	mg/L	100	12/22/23 13:20	8260B		MS
1,3,5-Trimethylbenzene*	0.372	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
1,3-Dichlorobenzene*	<0.050	0.050	0.005	mg/L	100	12/22/23 13:20	8260B		MS
1,3-Dichloropropane*	<0.050	0.050	0.013	mg/L	100	12/22/23 13:20	8260B		MS
1,4 Dichlorobenzene*	<0.050	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
1,4-Dioxane	<1.00	1.00	1.00	mg/L	100	12/22/23 13:20	8260B		MS
1,2,3-trichloropropane*	<0.050	0.050	0.012	mg/L	100	12/22/23 13:20	8260B		MS
2,2-Dichloropropane*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
2-Butanone*	<0.200	0.200	0.200	mg/L	100	12/22/23 13:20	8260B		MS
2-Chlorotoluene*	<0.050	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
2-Hexanone*	<0.100	0.100	0.032	mg/L	100	12/22/23 13:20	8260B		MS
4-Chlorotoluene*	<0.050	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
4-Methyl-2-pentanone*	<0.100	0.100	0.012	mg/L	100	12/22/23 13:20	8260B		MS
Acetone*	<1.00	1.00	0.086	mg/L	100	12/22/23 13:20	8260B		MS
Acrolein*	<0.500	0.500	0.108	mg/L	100	12/22/23 13:20	8260B		MS
Acrylonitrile*	<0.200	0.200	0.081	mg/L	100	12/22/23 13:20	8260B		MS
Benzene*	1.61	0.050	0.005	mg/L	100	12/22/23 13:20	8260B		MS
Bromobenzene*	<0.050	0.050	0.006	mg/L	100	12/22/23 13:20	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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

MW #1

2312146-01 (Ground Water)

Sampled Date: 12/15/23 09:35

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

Bromochloromethane*	<0.050	0.050	0.014	mg/L	100	12/22/23 13:20	8260B		MS
Bromodichloromethane*	<0.050	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
Bromoform*	<0.050	0.050	0.009	mg/L	100	12/22/23 13:20	8260B		MS
Bromomethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
Carbon disulfide*	0.154	0.100	0.014	mg/L	100	12/22/23 13:20	8260B		MS
Carbon tetrachloride*	<0.050	0.050	0.016	mg/L	100	12/22/23 13:20	8260B		MS
Chlorobenzene*	<0.050	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
Chloroethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
Chloroform*	<0.050	0.050	0.002	mg/L	100	12/22/23 13:20	8260B		MS
Chloromethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
cis-1,2-Dichloroethene*	<0.050	0.050	0.025	mg/L	100	12/22/23 13:20	8260B		MS
cis-1,3-Dichloropropene*	<0.050	0.050	0.009	mg/L	100	12/22/23 13:20	8260B		MS
Dibromochloromethane*	<0.050	0.050	0.008	mg/L	100	12/22/23 13:20	8260B		MS
Dibromomethane*	<0.050	0.050	0.017	mg/L	100	12/22/23 13:20	8260B		MS
Dichlorodifluoromethane*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
Ethylbenzene*	1.20	0.050	0.003	mg/L	100	12/22/23 13:20	8260B		MS
Hexachlorobutadiene*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
Iodomethane	<0.100	0.100	0.006	mg/L	100	12/22/23 13:20	8260B		MS
Isopropylbenzene*	0.114	0.050	0.002	mg/L	100	12/22/23 13:20	8260B		MS
m+p - Xylene*	8.59	0.100	0.008	mg/L	100	12/22/23 13:20	8260B		MS
Methyl tert-butyl ether	<0.100	0.100	0.025	mg/L	100	12/22/23 13:20	8260B		MS
Methylene chloride*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
Naphthalene*	0.067	0.050	0.008	mg/L	100	12/22/23 13:20	8260B		MS
n-Butylbenzene*	<0.050	0.050	0.007	mg/L	100	12/22/23 13:20	8260B		MS
n-Propylbenzene*	0.080	0.050	0.005	mg/L	100	12/22/23 13:20	8260B		MS
o-Xylene*	2.30	0.050	0.013	mg/L	100	12/22/23 13:20	8260B		MS
p-Isopropyltoluene*	<0.050	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
sec-Butylbenzene*	<0.050	0.050	0.004	mg/L	100	12/22/23 13:20	8260B		MS
Styrene*	<0.050	0.050	0.012	mg/L	100	12/22/23 13:20	8260B		MS
tert-Butylbenzene*	<0.050	0.050	0.007	mg/L	100	12/22/23 13:20	8260B		MS
Tetrachloroethene*	<0.050	0.050	0.009	mg/L	100	12/22/23 13:20	8260B		MS
Toluene*	6.84	0.050	0.008	mg/L	100	12/22/23 13:20	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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

MW #1

2312146-01 (Ground Water)
Sampled Date: 12/15/23 09:35

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

Total Xylenes*	10.9	0.100	0.021	mg/L	100	12/22/23 13:20	8260B		MS
trans-1,2-Dichloroethene*	<0.050	0.050	0.014	mg/L	100	12/22/23 13:20	8260B		MS
trans-1,3-Dichloropropene*	<0.050	0.050	0.005	mg/L	100	12/22/23 13:20	8260B		MS
trans-1,4-Dichloro-2-butene	<1.00	1.00	0.029	mg/L	100	12/22/23 13:20	8260B		MS
Trichloroethene*	<0.050	0.050	0.017	mg/L	100	12/22/23 13:20	8260B		MS
Trichlorofluoromethane*	<0.050	0.050	0.013	mg/L	100	12/22/23 13:20	8260B		MS
Vinyl acetate*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
Vinyl chloride*	<0.050	0.050	0.050	mg/L	100	12/22/23 13:20	8260B		MS
Surrogate: 4-Bromofluorobenzene			111 %	76.4-114		12/22/23 13:20	8260B		MS
Surrogate: Dibromofluoromethane			109 %	82.4-141		12/22/23 13:20	8260B		MS
Surrogate: Toluene-d8			103 %	87.1-110		12/22/23 13:20	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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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 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			

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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)

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			

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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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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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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	

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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 LS #006
Project Manager: Kyle Siesser

Reported:
12/27/23 15:23

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.

Green Analytical Laboratories

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

Veronica Wells, Project Manager

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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 # 2312146Courier: ☐ 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: 9.4 °C Correction Factor: 0 °C Final Temp: 9.4 °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	☒ 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 LS #6
 Unit M Sec 11 T31N R11W

LABORATORY (S) USED :

GAL

Date :

3/10/23

DEVELOPER / SAMPLER :

PM/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	-	-	24.10	26.30	1130	7.55	4800	11.2	10
2	100.50	-	-	32.36	Screened interval crimped/damaged approx 20.80 ft from top				
9	-	-	-	21.65	-	-	-	-	-

0.5 gal

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".

low recharge. Bailed ~ 0.5 gal. oil layer on top of water in
bailer & buckets

Top of casing MW #1 ~ 2.20 ft., MW #2 ~ 2.40 ft., MW #9 ~ 2.00 ft. above grade.

on-site	<u>1115</u>	temp	<u>~45°F</u>
off-site		temp	<u>~45°F</u>
sky cond.	<u>cloudy</u>		
wind speed	<u>5-10</u>	direct.	<u>N</u>

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

MUDGE LS #6
 Unit M Sec 11 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)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	-	-	<u>22.70</u>	26.30	<u>1055</u>	<u>6.96</u>	<u>4220</u>	<u>14.8</u>	<u>4</u>
2	100.50	-	<u>23.50</u>	32.36	<u>Screened interval crimped/damaged approx 20.80 ft from top</u>				-
9	-	-	<u>13.80</u>	21.65	-	-	-	-	-

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".

Layer of green translucent crude oil observed in first bailers
of water, followed by a grey tint. Heavy H₂S odor, bubbles
observed, fine suspended grey/black sediment observed

Top of casing MW #1 ~ 2.20 ft., MW #2 ~ 2.40 ft., MW #9 ~ 2.00 ft. above grade.

on-site	<u>1025</u>	temp	<u>70°F</u>
off-site	<u>1110</u>	temp	<u>70°F</u>
sky cond.	<u>Clear</u>		
wind speed	<u>5-10 W</u>	direct.	

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

MUDGE LS #6
 Unit M Sec 11 T31N R11W

LABORATORY (S) USED : _____

Date : 9-20-23DEVELOPER / SAMPLER : Joseph LaFortune

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	-	-	21.35	26.30	1310	7.27	4.16	19.4	2.5
2	100.50	-		32.36	Screened interval crimped/damaged approx 20.80 ft from top				
9	-	-		21.65	-	-	-	-	-

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".

Free product observed when purging wells

Top of casing MW #1 ~ 2.20 ft., MW #2 ~ 2.40 ft., MW #9 ~ 2.00 ft. above grade.

on-site	<u>12/5</u>	temp	<u>75° F</u>
off-site	<u>1320</u>	temp	<u>75° F</u>
sky cond.	<u>mostly cloudy</u>		
wind speed	<u>0-5</u>	direct.	<u>S</u>

COTTONWOOD CONSULTING LLC

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : SIMCOE LLC

MUDGE LS #6

Unit M Sec 11 T31N R11W

LABORATORY (S) USED : GAL

Date : 12/15/23

DEVELOPER / SAMPLER : LOIDS

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	-	-	21.57	26.30	0935 KO	7.35	4260	11.1	2.32
2	100.50	-	22.29	32.36	Screened interval crimped/damaged approx 20.80 ft from top				
9	-	-	14.04	21.65	-	-	-	-	-

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".

Top of casing MW # 1 ~ 2.20 ft , MW # 2 ~ 2.40 ft , MW # 9 ~ 2.00 ft. above grade .

on-site	0915	temp	35.0
off-site	0950	temp	35.0
sky cond.	cloudy		
wind speed	0-5	direct.	SW

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 301725

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID:	329736
	Action Number:	301725
	Action Type:	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Mudge LS #006 Groundwater Monitoring Lab Reports submitted for four (4) quarters of 2023. Field notes included; accepted for the record.	3/29/2024