

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

June 30, 2023

Kyle Siesser

Cottonwood Consulting LLC

PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

RE: Jaquez GC B 003E

OrderNo.: 2306A91

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/21/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2306A91

Date Reported: 6/30/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Jaquez GC B 003E

Collection Date: 6/20/2023 3:50:00 PM

Lab ID: 2306A91-001

Matrix: AIR

Received Date: 6/21/2023 6:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015D: GASOLINE RANGE						Analyst: JJP
Gasoline Range Organics (GRO)	170	10		µg/L	2	6/22/2023 1:34:11 PM
Surr: BFB	542	15-412	S	%Rec	2	6/22/2023 1:34:11 PM
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Toluene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Ethylbenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,2,4-Trimethylbenzene	0.46	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,3,5-Trimethylbenzene	1.6	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Naphthalene	ND	0.20		µg/L	1	6/23/2023 1:45:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	6/23/2023 1:45:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	6/23/2023 1:45:00 PM
Acetone	ND	1.0		µg/L	1	6/23/2023 1:45:00 PM
Bromobenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Bromoform	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Bromomethane	ND	0.20		µg/L	1	6/23/2023 1:45:00 PM
2-Butanone	ND	1.0		µg/L	1	6/23/2023 1:45:00 PM
Carbon disulfide	ND	1.0		µg/L	1	6/23/2023 1:45:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Chlorobenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Chloroethane	ND	0.20		µg/L	1	6/23/2023 1:45:00 PM
Chloroform	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Chloromethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	6/23/2023 1:45:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Dibromomethane	ND	0.20		µg/L	1	6/23/2023 1:45:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

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Lab ID: 2306A91-001

Matrix: AIR

Received Date: 6/21/2023 6:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,2-Dichloropropane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,1-Dichloropropene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
2-Hexanone	ND	1.0		µg/L	1	6/23/2023 1:45:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	6/23/2023 1:45:00 PM
Methylene chloride	ND	0.30		µg/L	1	6/23/2023 1:45:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	6/23/2023 1:45:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Styrene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	6/23/2023 1:45:00 PM
Vinyl chloride	ND	0.10		µg/L	1	6/23/2023 1:45:00 PM
Xylenes, Total	2.6	0.15		µg/L	1	6/23/2023 1:45:00 PM
Surr: Dibromofluoromethane	98.6	70-130		%Rec	1	6/23/2023 1:45:00 PM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	1	6/23/2023 1:45:00 PM
Surr: Toluene-d8	115	70-130		%Rec	1	6/23/2023 1:45:00 PM
Surr: 4-Bromofluorobenzene	123	70-130		%Rec	1	6/23/2023 1:45:00 PM

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

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

Page 2 of 4

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A91
30-Jun-23

Client: Cottonwood Consulting LLC
Project: Jaquez GC B 003E

Sample ID: 2306A91-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE		Batch ID: R97668		RunNo: 97668						
Prep Date:		Analysis Date: 6/23/2023		SeqNo: 3553206		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.10						0	20	
Toluene	ND	0.10						0	20	
Ethylbenzene	ND	0.10						0	20	
Methyl tert-butyl ether (MTBE)	ND	0.10						0	20	
1,2,4-Trimethylbenzene	0.46	0.10						1.30	20	
1,3,5-Trimethylbenzene	1.6	0.10						1.54	20	
1,2-Dichloroethane (EDC)	ND	0.10						0	20	
1,2-Dibromoethane (EDB)	ND	0.10						0	20	
Naphthalene	ND	0.20						0	20	
1-Methylnaphthalene	ND	0.40						0	20	
2-Methylnaphthalene	ND	0.40						0	20	
Acetone	ND	1.0						0	20	
Bromobenzene	ND	0.10						0	20	
Bromodichloromethane	ND	0.10						0	20	
Bromoform	ND	0.10						0	20	
Bromomethane	ND	0.20						0	20	
2-Butanone	ND	1.0						0	20	
Carbon disulfide	ND	1.0						0	20	
Carbon tetrachloride	ND	0.10						0	20	
Chlorobenzene	ND	0.10						0	20	
Chloroethane	ND	0.20						0	20	
Chloroform	ND	0.10						0	20	
Chloromethane	ND	0.10						0	20	
2-Chlorotoluene	ND	0.10						0	20	
4-Chlorotoluene	ND	0.10						0	20	
cis-1,2-DCE	ND	0.10						0	20	
cis-1,3-Dichloropropene	ND	0.10						0	20	
1,2-Dibromo-3-chloropropane	ND	0.20						0	20	
Dibromochloromethane	ND	0.10						0	20	
Dibromomethane	ND	0.20						0	20	
1,2-Dichlorobenzene	ND	0.10						0	20	
1,3-Dichlorobenzene	ND	0.10						0	20	
1,4-Dichlorobenzene	ND	0.10						0	20	
Dichlorodifluoromethane	ND	0.10						0	20	
1,1-Dichloroethane	ND	0.10						0	20	
1,1-Dichloroethene	ND	0.10						0	20	
1,2-Dichloropropane	ND	0.10						0	20	
1,3-Dichloropropane	ND	0.10						0	20	
2,2-Dichloropropane	ND	0.10						0	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

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

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 3 of 4

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2306A91

30-Jun-23

Client: Cottonwood Consulting LLC

Project: Jaquez GC B 003E

Sample ID: 2306A91-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE		Batch ID: R97668		RunNo: 97668						
Prep Date:		Analysis Date: 6/23/2023		SeqNo: 3553206		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10						0	20	
Hexachlorobutadiene	ND	0.10						0	20	
2-Hexanone	ND	1.0						0	20	
Isopropylbenzene	ND	0.10						0	20	
4-Isopropyltoluene	ND	0.10						0	20	
4-Methyl-2-pentanone	ND	1.0						0	20	
Methylene chloride	ND	0.30						0	20	
n-Butylbenzene	ND	0.30						0	20	
n-Propylbenzene	ND	0.10						0	20	
sec-Butylbenzene	ND	0.10						0	20	
Styrene	ND	0.10						0	20	
tert-Butylbenzene	ND	0.10						0	20	
1,1,1,2-Tetrachloroethane	ND	0.10						0	20	
1,1,2,2-Tetrachloroethane	ND	0.10						0	20	
Tetrachloroethene (PCE)	ND	0.10						0	20	
trans-1,2-DCE	ND	0.10						0	20	
trans-1,3-Dichloropropene	ND	0.10						0	20	
1,2,3-Trichlorobenzene	ND	0.10						0	20	
1,2,4-Trichlorobenzene	ND	0.10						0	20	
1,1,1-Trichloroethane	ND	0.10						0	20	
1,1,2-Trichloroethane	ND	0.10						0	20	
Trichloroethene (TCE)	ND	0.10						0	20	
Trichlorofluoromethane	ND	0.10						0	20	
1,2,3-Trichloropropane	ND	0.20						0	20	
Vinyl chloride	ND	0.10						0	20	
Xylenes, Total	2.6	0.15						0.575	20	
Surr: Dibromofluoromethane	0.99		1.000		99.1	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.95		1.000		94.8	70	130	0	0	
Surr: Toluene-d8	1.2		1.000		116	70	130	0	0	
Surr: 4-Bromofluorobenzene	1.2		1.000		120	70	130	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

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

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit



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

Sample Log-In Check List

Client Name: Cottonwood Consulting LLC

Work Order Number: 2306A91

RcptNo: 1

Received By: Tracy Casarrubias 6/21/2023 6:50:00 AM

Completed By: Tracy Casarrubias 6/21/2023 9:55:48 AM

Reviewed By: *ju 6/21/23*

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☐ NA ☒
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *SCM 06/21/23*

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	N/A	Good	Yes			

Chain-of-Custody Record

Client: Cottonwood Consulting LLC

Mailing Address: PO Box 1653

Durango, CO 81302

Phone #: 970-764-7356

email or Fax#: ksiesser@cottonwoodconsulting.com

QA/QC Package:

☒ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Jaquez GC B #003E

Project #:

Project Manager:

Kyle Siesser

Sampler: Joseph LaFortune

On Ice: ☐ Yes ☒ No

of Coolers: 1

Cooler Temp (including CP): N/A

Container Type and #

tedlar bag - 1

Preservative Type

NA

HEAL No.

2306A91

Date:

6/20/23

Relinquished by:

[Signature]

Date:

6/20/23

Relinquished by:

[Signature]

Received by:

Via: *[Signature]*

Date

6/20/23

Received by:

Via: *[Signature]*

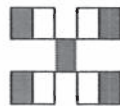
Date

6/20/23

Remarks:

please cc emillar@cottonwoodconsulting.com
jlafortune@cottonwoodconsulting.com

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX / MTBE / TMBs (8021)

TPH: 8015D (GRO / DRO / MRO)

8081 Pesticides/8082 PCBs

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, NO₂, PO₄, SO₄

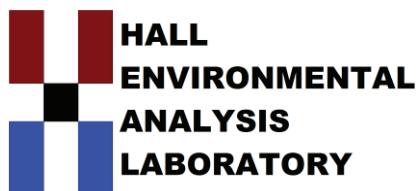
8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

TPH (8015B)

☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒☒



Hall Environmental Analysis Laboratory
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TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 03, 2023

Kyle Siesser

Cottonwood Consulting LLC

PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

RE: Jaquez GC B 003E

OrderNo.: 2309B60

Dear Kyle Siesser:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/21/2023 for the analyses presented in the following report.

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

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

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

Sincerely,

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

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2309B60

Date Reported: 10/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Jaquez GC B 003E

Collection Date: 9/19/2023 10:25:00 AM

Lab ID: 2309B60-001

Matrix: AIR

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Toluene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Ethylbenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2,4-Trimethylbenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,3,5-Trimethylbenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Naphthalene	ND	0.20		µg/L	1	9/25/2023 12:47:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	9/25/2023 12:47:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	9/25/2023 12:47:00 PM
Acetone	ND	1.0		µg/L	1	9/25/2023 12:47:00 PM
Bromobenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Bromoform	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Bromomethane	ND	0.20		µg/L	1	9/25/2023 12:47:00 PM
2-Butanone	ND	1.0		µg/L	1	9/25/2023 12:47:00 PM
Carbon disulfide	ND	1.0		µg/L	1	9/25/2023 12:47:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Chlorobenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Chloroethane	ND	0.20		µg/L	1	9/25/2023 12:47:00 PM
Chloroform	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Chloromethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	9/25/2023 12:47:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Dibromomethane	ND	0.20		µg/L	1	9/25/2023 12:47:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2-Dichloropropane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2309B60

Date Reported: 10/3/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Jaquez GC B 003E

Collection Date: 9/19/2023 10:25:00 AM

Lab ID: 2309B60-001

Matrix: AIR

Received Date: 9/21/2023 6:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,1-Dichloropropene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
2-Hexanone	ND	1.0		µg/L	1	9/25/2023 12:47:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	9/25/2023 12:47:00 PM
Methylene chloride	ND	0.30		µg/L	1	9/25/2023 12:47:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	9/25/2023 12:47:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Styrene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	9/25/2023 12:47:00 PM
Vinyl chloride	ND	0.10		µg/L	1	9/25/2023 12:47:00 PM
Xylenes, Total	ND	0.15		µg/L	1	9/25/2023 12:47:00 PM
Surr: Dibromofluoromethane	96.8	70-130		%Rec	1	9/25/2023 12:47:00 PM
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%Rec	1	9/25/2023 12:47:00 PM
Surr: Toluene-d8	91.2	70-130		%Rec	1	9/25/2023 12:47:00 PM
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	9/25/2023 12:47:00 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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ANALYTICAL SUMMARY REPORT

October 02, 2023

Hall Environmental

4901 Hawkins St NE Ste D

Albuquerque, NM 87109-4372

Work Order: B23092173

Quote ID: B15626

Project Name: Not Indicated

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 9/26/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B23092173-001	2309B60-001B, SVE	09/19/23 10:25	09/26/23	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:

Quality Assurance Manager

Digitally signed by

Leigh Ann. Wise

Date: 2023.10.02 17:46:49 -06:00



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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B23092173-001
Client Sample ID: 2309B60-001B, SVE

Report Date: 10/02/23
Collection Date: 09/19/23 10:25
Date Received: 09/26/23
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	21.88	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Nitrogen	78.07	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Carbon Dioxide	0.04	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Methane	0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Hexanes plus	<0.01	Mol %		0.01		GPA 2261-95	09/27/23 10:12 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj
Hexanes plus	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj
GPM Total	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj
GPM Pentanes plus	< 0.001	gpm		0.001		GPA 2261-95	09/27/23 10:12 / jrj

CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	ND		1		GPA 2261-95	09/27/23 10:12 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND		1		GPA 2261-95	09/27/23 10:12 / jrj
Pseudo-critical Pressure, psia	545		1		GPA 2261-95	09/27/23 10:12 / jrj
Pseudo-critical Temperature, deg R	239		1		GPA 2261-95	09/27/23 10:12 / jrj
Specific Gravity @ 60/60F	0.998		0.001		D3588-81	09/27/23 10:12 / jrj
Air, %	99.96		0.01		GPA 2261-95	09/27/23 10:12 / jrj

- The analysis was not corrected for air.

COMMENTS

-					-	09/27/23 10:12 / jrj
- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior. - GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions. - To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825. - Standard conditions: 60 F & 14.73 psi on a dry basis.						

Report Definitions: RL - Analyte Reporting Limit
QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B23092173

Report Date: 10/02/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95									Batch: R409565	
Lab ID: B23092155-001ADUP 12 Sample Duplicate									Run: GCNGA-B_230927A 09/27/23 09:43	
Oxygen		21.9	Mol %	0.01				0	20	
Nitrogen		78.1	Mol %	0.01				0	20	
Carbon Dioxide		0.05	Mol %	0.01				0.0	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		<0.01	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		<0.01	Mol %	0.01					20	
Lab ID: LCS092723 11 Laboratory Control Sample									Run: GCNGA-B_230927A 09/27/23 15:27	
Oxygen		0.62	Mol %	0.01	124	70	130			
Nitrogen		6.02	Mol %	0.01	100	70	130			
Carbon Dioxide		1.00	Mol %	0.01	101	70	130			
Methane		74.3	Mol %	0.01	99	70	130			
Ethane		6.04	Mol %	0.01	101	70	130			
Propane		5.35	Mol %	0.01	108	70	130			
Isobutane		1.98	Mol %	0.01	99	70	130			
n-Butane		1.98	Mol %	0.01	99	70	130			
Isopentane		1.02	Mol %	0.01	102	70	130			
n-Pentane		1.00	Mol %	0.01	100	70	130			
Hexanes plus		0.73	Mol %	0.01	91	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Work Order Receipt Checklist

Hall Environmental

B23092173

Login completed by: Addison A. Gilbert

Date Received: 9/26/2023

Reviewed by: darcy

Received by: dnh

Reviewed Date: 9/30/2023

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☒
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☒	Not Applicable ☐
Container/Temp Blank temperature:	17.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

Contact and Corrective Action Comments:

None



CHAIN OF CUSTODY RECORD

PAGE: 1 OF 1

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

SUB CONTRACTOR		Energy Labs -Billings		COMPANY:	Energy Laboratories		PHONE:	(406) 869-6253	FAX:	(406) 252-6069
ADDRESS		1120 South 27th Street		ACCOUNT #		EMAIL				
CITY, STATE, ZIP		Billings, MT 59107								

ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	ANALYTICAL COMMENTS
1	2309B60-001B	SVE	TEDLAR	Air	9/19/2023 10:25:00 AM	1 Natural Gas Analysis CO2+02

B230942155

B23092173 A6 26 sep 23

SPECIAL INSTRUCTIONS / COMMENTS:

Please include the LAB ID and the CLIENT SAMPLE ID on all final reports. Please e-mail results to lab@hallenvironmental.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date	Time	Received By:	Date	Time	REPORT TRANSMITTAL DESIRED:
Relinquished By:	Date	Time	Received By:	Date	Time	☐ HARD COPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE
Relinquished By:	Date	Time	Received By:	Date	Time	FOR LAB USE ONLY
TAT:	Standard		RUSH	2nd BD	3rd BD	Temp of samples ☐ Attempt to Cool?
						Comments

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309B60
03-Oct-23

Client: Cottonwood Consulting LLC

Project: Jaquez GC B 003E

Sample ID: 2309B60-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE		Batch ID: R99960		RunNo: 99960						
Prep Date:		Analysis Date: 9/25/2023		SeqNo: 3657001		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.10						0	20	
Toluene	ND	0.10						0	20	
Ethylbenzene	ND	0.10						0	20	
Methyl tert-butyl ether (MTBE)	ND	0.10						0	20	
1,2,4-Trimethylbenzene	ND	0.10						0	20	
1,3,5-Trimethylbenzene	ND	0.10						0	20	
1,2-Dichloroethane (EDC)	ND	0.10						0	20	
1,2-Dibromoethane (EDB)	ND	0.10						0	20	
Naphthalene	ND	0.20						0	20	
1-Methylnaphthalene	ND	0.40						0	20	
2-Methylnaphthalene	ND	0.40						0	20	
Acetone	ND	1.0						0	20	
Bromobenzene	ND	0.10						0	20	
Bromodichloromethane	ND	0.10						0	20	
Bromoform	ND	0.10						0	20	
Bromomethane	ND	0.20						0	20	
2-Butanone	ND	1.0						0	20	
Carbon disulfide	ND	1.0						0	20	
Carbon tetrachloride	ND	0.10						0	20	
Chlorobenzene	ND	0.10						0	20	
Chloroethane	ND	0.20						0	20	
Chloroform	ND	0.10						0	20	
Chloromethane	ND	0.10						0	20	
2-Chlorotoluene	ND	0.10						0	20	
4-Chlorotoluene	ND	0.10						0	20	
cis-1,2-DCE	ND	0.10						0	20	
cis-1,3-Dichloropropene	ND	0.10						0	20	
1,2-Dibromo-3-chloropropane	ND	0.20						0	20	
Dibromochloromethane	ND	0.10						0	20	
Dibromomethane	ND	0.20						0	20	
1,2-Dichlorobenzene	ND	0.10						0	20	
1,3-Dichlorobenzene	ND	0.10						0	20	
1,4-Dichlorobenzene	ND	0.10						0	20	
Dichlorodifluoromethane	ND	0.10						0	20	
1,1-Dichloroethane	ND	0.10						0	20	
1,1-Dichloroethene	ND	0.10						0	20	
1,2-Dichloropropane	ND	0.10						0	20	
1,3-Dichloropropane	ND	0.10						0	20	
2,2-Dichloropropane	ND	0.10						0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.
- B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2309B60

03-Oct-23

Client: Cottonwood Consulting LLC

Project: Jaquez GC B 003E

Sample ID: 2309B60-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE		Batch ID: R99960		RunNo: 99960						
Prep Date:		Analysis Date: 9/25/2023		SeqNo: 3657001		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10						0	20	
Hexachlorobutadiene	ND	0.10						0	20	
2-Hexanone	ND	1.0						0	20	
Isopropylbenzene	ND	0.10						0	20	
4-Isopropyltoluene	ND	0.10						0	20	
4-Methyl-2-pentanone	ND	1.0						0	20	
Methylene chloride	ND	0.30						0	20	
n-Butylbenzene	ND	0.30						0	20	
n-Propylbenzene	ND	0.10						0	20	
sec-Butylbenzene	ND	0.10						0	20	
Styrene	ND	0.10						0	20	
tert-Butylbenzene	ND	0.10						0	20	
1,1,1,2-Tetrachloroethane	ND	0.10						0	20	
1,1,2,2-Tetrachloroethane	ND	0.10						0	20	
Tetrachloroethene (PCE)	ND	0.10						0	20	
trans-1,2-DCE	ND	0.10						0	20	
trans-1,3-Dichloropropene	ND	0.10						0	20	
1,2,3-Trichlorobenzene	ND	0.10						0	20	
1,2,4-Trichlorobenzene	ND	0.10						0	20	
1,1,1-Trichloroethane	ND	0.10						0	20	
1,1,2-Trichloroethane	ND	0.10						0	20	
Trichloroethene (TCE)	ND	0.10						0	20	
Trichlorofluoromethane	ND	0.10						0	20	
1,2,3-Trichloropropane	ND	0.20						0	20	
Vinyl chloride	ND	0.10						0	20	
Xylenes, Total	ND	0.15						0	20	
Surr: Dibromofluoromethane	1.0		1.000		101	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.92		1.000		92.3	70	130	0	0	
Surr: Toluene-d8	0.91		1.000		91.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.96		1.000		96.1	70	130	0	0	

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

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

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

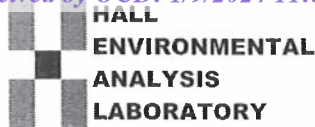
Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit



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

Sample Log-In Check List

Client Name: Cottonwood Consulting
 LLC

Work Order Number: 2309B60

RcptNo: 1

Received By: Tracy Casarrubias 9/21/2023 6:10:00 AM

Completed By: Tracy Casarrubias 9/21/2023 8:29:15 AM

Reviewed By: *my 9/21/23*

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☐ No ☐ NA ☒
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☐ No ☐ NA ☒
 5. Sample(s) in proper container(s)? Yes ☒ No ☐
 6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
 8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☒
 10. Were any sample containers received broken? Yes ☐ No ☒
 11. Does paperwork match bottle labels? Yes ☒ No ☐
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 13. Is it clear what analyses were requested? Yes ☒ No ☐
 14. Were all holding times able to be met? Yes ☒ No ☐
 (If no, notify customer for authorization.)

of preserved
 bottles checked
 for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *my 9/21/23*

Special Handling (if applicable)

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	N/A	Good	Yes			

Chain-of-Custody Record

Client: Cottonwood Consulting LLC

Mailing Address: PO Box 1653

Durango, CO 81302

Phone #: 970-764-7356

email or Fax#: ksiesser@cottonwoodconsulting.com

QA/QC Package:

☒ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Jaquez GC B #003E

Project #:

Project Manager:

Kyle Siesser

Sampler:

On Ice: ☐ Yes ☒ No

of Coolers: 1

Cooler Temp (including CF): N/A

Container Type and #

tedlar bag - 1

Preservative Type

NA

HEAL No.

2309B60

001

BTEX / MTBE / TMBs (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, NO₂, PO₄, SO₄

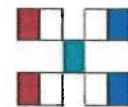
8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

CO2

O2

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Remarks:

please cc emillar@cottonwoodconsulting.com

Received by: Via: currency Date Time

9/12/23 4:10

Received by: Via: Date Time

9/12/23 4:10



Environment Testing

Eurofins Environment Testing South
Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 29, 2023

Kyle Siesser

Cottonwood Consulting LLC

PO BOX 1653

Durango, CO 81302

TEL: (970) 764-7356

FAX:

RE: Jaquez GC B 003E

OrderNo.: 2312987

Dear Kyle Siesser:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 12/16/2023 for the analyses presented in the following report.

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

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2312987

Date Reported: 12/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Jaquez GC B 003E

Collection Date: 12/15/2023 12:35:00 PM

Lab ID: 2312987-001

Matrix: AIR

Received Date: 12/16/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
Benzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Toluene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Ethylbenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2,4-Trimethylbenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,3,5-Trimethylbenzene	0.48	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2-Dichloroethane (EDC)	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2-Dibromoethane (EDB)	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Naphthalene	ND	0.20		µg/L	1	12/18/2023 12:34:00 PM
1-Methylnaphthalene	ND	0.40		µg/L	1	12/18/2023 12:34:00 PM
2-Methylnaphthalene	ND	0.40		µg/L	1	12/18/2023 12:34:00 PM
Acetone	ND	1.0		µg/L	1	12/18/2023 12:34:00 PM
Bromobenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Bromodichloromethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Bromoform	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Bromomethane	ND	0.20		µg/L	1	12/18/2023 12:34:00 PM
2-Butanone	ND	1.0		µg/L	1	12/18/2023 12:34:00 PM
Carbon disulfide	ND	1.0		µg/L	1	12/18/2023 12:34:00 PM
Carbon tetrachloride	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Chlorobenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Chloroethane	ND	0.20		µg/L	1	12/18/2023 12:34:00 PM
Chloroform	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Chloromethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
2-Chlorotoluene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
4-Chlorotoluene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
cis-1,2-DCE	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
cis-1,3-Dichloropropene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2-Dibromo-3-chloropropane	ND	0.20		µg/L	1	12/18/2023 12:34:00 PM
Dibromochloromethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Dibromomethane	ND	0.20		µg/L	1	12/18/2023 12:34:00 PM
1,2-Dichlorobenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,3-Dichlorobenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,4-Dichlorobenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Dichlorodifluoromethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,1-Dichloroethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,1-Dichloroethene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2-Dichloropropane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,3-Dichloropropane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
2,2-Dichloropropane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM

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

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

Analytical Report

Lab Order 2312987

Date Reported: 12/29/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Cottonwood Consulting LLC

Client Sample ID: SVE

Project: Jaquez GC B 003E

Collection Date: 12/15/2023 12:35:00 PM

Lab ID: 2312987-001

Matrix: AIR

Received Date: 12/16/2023 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: CCM
1,1-Dichloropropene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Hexachlorobutadiene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
2-Hexanone	ND	1.0		µg/L	1	12/18/2023 12:34:00 PM
Isopropylbenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
4-Isopropyltoluene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
4-Methyl-2-pentanone	ND	1.0		µg/L	1	12/18/2023 12:34:00 PM
Methylene chloride	ND	0.30		µg/L	1	12/18/2023 12:34:00 PM
n-Butylbenzene	ND	0.30		µg/L	1	12/18/2023 12:34:00 PM
n-Propylbenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
sec-Butylbenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Styrene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
tert-Butylbenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,1,1,2-Tetrachloroethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,1,2,2-Tetrachloroethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Tetrachloroethene (PCE)	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
trans-1,2-DCE	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
trans-1,3-Dichloropropene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2,3-Trichlorobenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2,4-Trichlorobenzene	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,1,1-Trichloroethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,1,2-Trichloroethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Trichloroethene (TCE)	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Trichlorofluoromethane	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
1,2,3-Trichloropropane	ND	0.20		µg/L	1	12/18/2023 12:34:00 PM
Vinyl chloride	ND	0.10		µg/L	1	12/18/2023 12:34:00 PM
Xylenes, Total	0.43	0.15		µg/L	1	12/18/2023 12:34:00 PM
Surr: Dibromofluoromethane	105	70-130		%Rec	1	12/18/2023 12:34:00 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%Rec	1	12/18/2023 12:34:00 PM
Surr: Toluene-d8	110	70-130		%Rec	1	12/18/2023 12:34:00 PM
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	1	12/18/2023 12:34:00 PM

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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ANALYTICAL SUMMARY REPORT

December 28, 2023

Hall Environmental
4901 Hawkins St NE Ste D
Albuquerque, NM 87109-4372

Work Order: B23121309 Quote ID: B15626

Project Name: Not Indicated

Energy Laboratories Inc Billings MT received the following 1 sample for Hall Environmental on 12/19/2023 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B23121309-001	2312987-001B, SVE	12/15/23 12:35	12/19/23	Air	Air Correction Calculations Appearance and Comments Calculated Properties GPM @ std cond./1000 cu. ft., moist. Free Natural Gas Analysis Specific Gravity @ 60/60

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager.

Report Approved By:

Organic SupervisorDigitally signed by
Ladonna Weis
Date: 2023.12.28 07:40:08 -07:00



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LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

Client: Hall Environmental
Project: Not Indicated
Lab ID: B23121309-001
Client Sample ID: 2312987-001B, SVE

Report Date: 12/28/23
Collection Date: 12/15/23 12:35
Date Received: 12/19/23
Matrix: Air

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
GAS CHROMATOGRAPHY ANALYSIS REPORT							
Oxygen	20.52	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Nitrogen	78.93	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Carbon Dioxide	0.55	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Hydrogen Sulfide	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Methane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Ethane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Propane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Isobutane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
n-Butane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Isopentane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
n-Pentane	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Hexanes plus	<0.01	Mol %		0.01		GPA 2261-95	12/20/23 12:10 / jrj
Propane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj
Isobutane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj
n-Butane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj
Isopentane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj
n-Pentane	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj
Hexanes plus	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj
GPM Total	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj
GPM Pentanes plus	< 0.001	gpm		0.001		GPA 2261-95	12/20/23 12:10 / jrj

CALCULATED PROPERTIES

Gross BTU per cu ft @ Std Cond. (HHV)	ND	1	GPA 2261-95	12/20/23 12:10 / jrj
Net BTU per cu ft @ std cond. (LHV)	ND	1	GPA 2261-95	12/20/23 12:10 / jrj
Pseudo-critical Pressure, psia	545	1	GPA 2261-95	12/20/23 12:10 / jrj
Pseudo-critical Temperature, deg R	240	1	GPA 2261-95	12/20/23 12:10 / jrj
Specific Gravity @ 60/60F	0.999	0.001	D3588-81	12/20/23 12:10 / jrj
Air, %	93.77	0.01	GPA 2261-95	12/20/23 12:10 / jrj

- The analysis was not corrected for air.

COMMENTS

-	-	12/20/23 12:10 / jrj
- BTU, GPM, and specific gravity are corrected for deviation from ideal gas behavior. - GPM = gallons of liquid at standard conditions per 1000 cu. ft. of moisture free gas @ standard conditions. - To convert BTU to a water-saturated basis @ standard conditions, multiply by 0.9825. - Standard conditions: 60 F & 14.73 psi on a dry basis.		

Report RL - Analyte Reporting Limit
Definitions: QCL - Quality Control Limit

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Hall Environmental

Work Order: B23121309

Report Date: 12/28/23

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: GPA 2261-95									Batch: R414179	
Lab ID: B23121311-001ADUP 12 Sample Duplicate									Run: GCNGA-B_231220A 12/20/23 01:57	
Oxygen		21.7	Mol %	0.01				0.0	20	
Nitrogen		78.2	Mol %	0.01				0	20	
Carbon Dioxide		0.09	Mol %	0.01				11	20	
Hydrogen Sulfide		<0.01	Mol %	0.01					20	
Methane		0.02	Mol %	0.01					20	
Ethane		<0.01	Mol %	0.01					20	
Propane		<0.01	Mol %	0.01					20	
Isobutane		<0.01	Mol %	0.01					20	
n-Butane		<0.01	Mol %	0.01					20	
Isopentane		<0.01	Mol %	0.01					20	
n-Pentane		<0.01	Mol %	0.01					20	
Hexanes plus		<0.01	Mol %	0.01					20	
Lab ID: LCS122123 11 Laboratory Control Sample									Run: GCNGA-B_231220A 12/20/23 03:37	
Oxygen		0.64	Mol %	0.01	128	70	130			
Nitrogen		6.14	Mol %	0.01	102	70	130			
Carbon Dioxide		0.99	Mol %	0.01	100	70	130			
Methane		74.6	Mol %	0.01	100	70	130			
Ethane		6.02	Mol %	0.01	100	70	130			
Propane		5.01	Mol %	0.01	101	70	130			
Isobutane		1.80	Mol %	0.01	90	70	130			
n-Butane		1.99	Mol %	0.01	99	70	130			
Isopentane		1.00	Mol %	0.01	100	70	130			
n-Pentane		0.99	Mol %	0.01	99	70	130			
Hexanes plus		0.79	Mol %	0.01	99	70	130			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



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Gillette, WY 307.686.7175 • Helena, MT 406.442.0711

Work Order Receipt Checklist

Hall Environmental

B23121309

Login completed by: Crystal M. Jones

Date Received: 12/19/2023

Reviewed by: cjohnson

Received by: cmj

Reviewed Date: 12/21/2023

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☒	Not Applicable ☐
Container/Temp Blank temperature:	14.4°C No Ice		
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☒

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Contact and Corrective Action Comments:

None



Environment Testing

CHAIN OF CUSTODY RECORD

PAGE: 1 OF: 1

Eurofins Environment Testing South Central, LLC
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975
FAX: 505-345-4107
Website: www.hallenvironmental.com

SUB CONTRACTOR: Energy Labs -Billings		COMPANY: Energy Laboratories		PHONE: (406) 869-6253	FAX: (406) 252-6069
ADDRESS: 1120 South 27th Street		ACCOUNT #:		EMAIL:	
CITY, STATE, ZIP: Billings, MT 59107					
ITEM	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE
1	2312987-001B	SVE	TEDLAR	Air	12/15/2023 12:35:00 PM
# CONTAINERS					1
ANALYTICAL COMMENTS					Natural Gas Analysis CO2+02

B23121309

SPECIAL INSTRUCTIONS / COMMENTS:

Include the LAB ID and CLIENT SAMPLE ID on final reports. Email results to Hall.Lab@et.eurofinsus.com. For Questions email Hall.samplecontrol@et.eurofinsus.com. Please return all coolers and blue ice. Thank you.

Relinquished By:	Date: 12/16/2023	Time: 8:55 AM	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 12/19/23	Time: 0710
TAT:			Next BD ☐	2nd BD ☐	3rd BD ☐
			RUSH		
			FOR LAB USE ONLY		
			REPORT TRANSMITTAL DESIRED: ☐ HARD COPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE		
			Temp of samples _____ °C Attempt to Cool? _____		
			Comments: _____		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2312987

29-Dec-23

Client: Cottonwood Consulting LLC

Project: Jaquez GC B 003E

Sample ID: 2312987-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE		Batch ID: R101900		RunNo: 101900						
Prep Date:		Analysis Date: 12/18/2023		SeqNo: 3759790		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.10						0	20	
Toluene	ND	0.10						0	20	
Ethylbenzene	ND	0.10						0	20	
Methyl tert-butyl ether (MTBE)	ND	0.10						0	20	
1,2,4-Trimethylbenzene	ND	0.10						0	20	
1,3,5-Trimethylbenzene	0.45	0.10						5.53	20	
1,2-Dichloroethane (EDC)	ND	0.10						0	20	
1,2-Dibromoethane (EDB)	ND	0.10						0	20	
Naphthalene	ND	0.20						0	20	
1-Methylnaphthalene	ND	0.40						0	20	
2-Methylnaphthalene	ND	0.40						0	20	
Acetone	ND	1.0						0	20	
Bromobenzene	ND	0.10						0	20	
Bromodichloromethane	ND	0.10						0	20	
Bromoform	ND	0.10						0	20	
Bromomethane	ND	0.20						0	20	
2-Butanone	ND	1.0						0	20	
Carbon disulfide	ND	1.0						0	20	
Carbon tetrachloride	ND	0.10						0	20	
Chlorobenzene	ND	0.10						0	20	
Chloroethane	ND	0.20						0	20	
Chloroform	ND	0.10						0	20	
Chloromethane	ND	0.10						0	20	
2-Chlorotoluene	ND	0.10						0	20	
4-Chlorotoluene	ND	0.10						0	20	
cis-1,2-DCE	ND	0.10						0	20	
cis-1,3-Dichloropropene	ND	0.10						0	20	
1,2-Dibromo-3-chloropropane	ND	0.20						0	20	
Dibromochloromethane	ND	0.10						0	20	
Dibromomethane	ND	0.20						0	20	
1,2-Dichlorobenzene	ND	0.10						0	20	
1,3-Dichlorobenzene	ND	0.10						0	20	
1,4-Dichlorobenzene	ND	0.10						0	20	
Dichlorodifluoromethane	ND	0.10						0	20	
1,1-Dichloroethane	ND	0.10						0	20	
1,1-Dichloroethene	ND	0.10						0	20	
1,2-Dichloropropane	ND	0.10						0	20	
1,3-Dichloropropane	ND	0.10						0	20	
2,2-Dichloropropane	ND	0.10						0	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

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

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2312987

29-Dec-23

Client: Cottonwood Consulting LLC

Project: Jaquez GC B 003E

Sample ID: 2312987-001adup		SampType: DUP		TestCode: EPA Method 8260B: Volatiles						
Client ID: SVE		Batch ID: R101900		RunNo: 101900						
Prep Date:		Analysis Date: 12/18/2023		SeqNo: 3759790		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.10						0	20	
Hexachlorobutadiene	ND	0.10						0	20	
2-Hexanone	ND	1.0						0	20	
Isopropylbenzene	ND	0.10						0	20	
4-Isopropyltoluene	ND	0.10						0	20	
4-Methyl-2-pentanone	ND	1.0						0	20	
Methylene chloride	ND	0.30						0	20	
n-Butylbenzene	ND	0.30						0	20	
n-Propylbenzene	ND	0.10						0	20	
sec-Butylbenzene	ND	0.10						0	20	
Styrene	ND	0.10						0	20	
tert-Butylbenzene	ND	0.10						0	20	
1,1,1,2-Tetrachloroethane	ND	0.10						0	20	
1,1,2,2-Tetrachloroethane	ND	0.10						0	20	
Tetrachloroethene (PCE)	ND	0.10						0	20	
trans-1,2-DCE	ND	0.10						0	20	
trans-1,3-Dichloropropene	ND	0.10						0	20	
1,2,3-Trichlorobenzene	ND	0.10						0	20	
1,2,4-Trichlorobenzene	ND	0.10						0	20	
1,1,1-Trichloroethane	ND	0.10						0	20	
1,1,2-Trichloroethane	ND	0.10						0	20	
Trichloroethene (TCE)	ND	0.10						0	20	
Trichlorofluoromethane	ND	0.10						0	20	
1,2,3-Trichloropropane	ND	0.20						0	20	
Vinyl chloride	ND	0.10						0	20	
Xylenes, Total	0.45	0.15						6.09	20	
Surr: Dibromofluoromethane	1.0		1.000		103	70	130	0	0	
Surr: 1,2-Dichloroethane-d4	0.95		1.000		95.0	70	130	0	0	
Surr: Toluene-d8	1.1		1.000		110	70	130	0	0	
Surr: 4-Bromofluorobenzene	1.1		1.000		112	70	130	0	0	

Qualifiers:

*

Value exceeds Maximum Contaminant Level.

D

Sample Diluted Due to Matrix

H

Holding times for preparation or analysis exceeded

ND

Not Detected at the Reporting Limit

PQL

Practical Quantitative Limit

S

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

B

Analyte detected in the associated Method Blank

E

Above Quantitation Range/Estimated Value

J

Analyte detected below quantitation limits

P

Sample pH Not In Range

RL

Reporting Limit



Environment Testin

Eurofins Environment Testing South
Central, LLC

4901 Hawkins NE

Albuquerque, NM 87109

TEL: 505-345-3975 FAX: 505-345-4107

Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Cottonwood Consulting

Work Order Number: 2312987

RcptNo: 1

Received By: Tracy Casarrubias

12/16/2023 7:35:00 AM

Completed By: Tracy Casarrubias

12/16/2023 8:47:31 AM

Reviewed By: *Tracy 12/18/23***Chain of Custody**

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☐ No ☒ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ *NA 12/18/23*
5. Sample(s) in proper container(s)? Yes ☒ No ☐ Not required
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: _____
(<2 or >12 unless noted)

Adjusted? _____

Checked by: *Tracy 12/18/23***Special Handling (if applicable)**

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

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	N/A	Good	Yes			

Chain-of-Custody Record

Client: Cottonwood Consulting LLC

Mailing Address: PO Box 1653

Durango, CO 81302

Phone #: 970-764-7356

email or Fax#: ksiesser@cottonwoodconsulting.com

QA/QC Package:

☒ Standard
 ☐ Level 4 (Full Validation)
Accreditation: ☐ Az Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☒ Standard
 ☐ Rush

Project Name:

Jaquez GC B #003E

Project #:

Project Manager:

Kyle Siesser

Sampler: Kelsey O'Brien

On Ice: ☐ Yes ☒ No

of Coolers: 1

Cooler Temp (including CFI): N/A

Container Type and #

tedlar bag - 1

Preservative Type

NA

HEAL No.

2312987

001

CO2

CO2

O2

CO2

BTEX / MTBE / TMBs (8021)

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

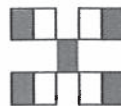
Cl, F, Br, NO₃, NO₂, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

Analysis Request

HALL ENVIRONMENTAL
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Remarks:

please cc emillar@cottonwoodconsulting.com

Received by: Vid: Date Time

12/15/23 13:36

Received by: Via: Date Time

12/15/23 7:35

Relinquished by:

12/15/23 13:36

Relinquished by:

12/15/23 17:42

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Exhaust Rate (cfm) if known	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic ALS 9A	1-10-23	1	11.1	-46	-37	-	Y	26.5	Y	
Florence GCU16	1	2	23.1	Broken	-	-	N	31.4	N	Drum Frozen
Sandoval	1	1	62.2	-8	Broken	-	N	14	Y	Tank 80-90% Full
Jacquez	1	3	7.4	0.0	Broken	-	N	9	Y	Attempted to restart unit will not turn on
Al Elliot	1	5	165.0	-10	-10	-	Y	27.5	Y	638.8 hours run time
GCU H80	1	All	-	-	-	-	Y	-	-	2.5 PSI 154°F 1947.1 Hrs 1)0.0 2)0.0 3)1.0 4)0.0
Heaton	1	unk	106.6	-66	Broken	-	Y	26.5	Y	
Mudge B12R	1/14/23	1	-	-	-	-	N	32	N	drum frozen - unable to drain. SVE not operational.
Mudge A2	1/12/23	2	0.8	-54	-	-	Y	31	N	water in drum below drain port.

Notes:

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

SVE Monitoring

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

Notes:

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



SVE Monitoring

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

Notes:

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

SVE Monitoring

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

Notes:

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

SVE Monitoring

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

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

Prain valve
Still leaking4510.2 hrs
psi

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic	6/6/23	1	5.5	-44	0	—	Y	Dry	N	
Florence		2	99.6	Broken	—	—	Y	29"	Y	Drum leaking from drain valve
Sandoval		1	7.3	Broken	Broken	3144.4	Y	Below Port	N	3144.4 hrs
Juarez		3	123.2	-24	—	1606.7	Y	30"	Y	1606.7 hrs
Al Elliott		5	96.8	-8	-11	2683.0	Y	Below Port	N	2683.0 hrs
GCU H180		All	—	—	—	5326.6	Y	—	—	110° 2.4 PSI 1b.75 2)0.5 5326.6 hrs 3)0.5 4)0.5 PSI
Heaton		Unk	110.5	-54	—	—	Y	Dry	N	Vacuum Pressure gauge removed (downstream)
Mudge B12R		1	101.1	-44	-29	—	Y	Dry	N	
Mudge A002		2	171.6	-50	—	—	Y	Below Port	N	

Notes:

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



SVE Monitoring

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

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H ₂ O")	Vacuum Pressure downstream of drum (H ₂ O")	Run Time (Hours)	System Operational at Arrival?	Drum H ₂ O (inches bTOD)	Drum Drained?	Comments
Atlantic	8-9-23	1	7.8	-35	-46	-	Y	Dry	N	
Florence		2	85.2	-3	-	-	Y	Dry	N	
Sandoval		1	7.6	Broken	Broken	4679.6	Y	Dry	N	
Jacquez		3	115.3	-24	-	3137.9	Y	Dry	N	
AL Elliott		5	83.8	-9	-12	4128.0	Y	Dry	N	
GCU H180		All	-	-	-	6688.3	Y	-	-	165°F 2.5 psi; 1.2.5psi) 2. 2psi) 3. 2.2psi) 4. 2.4 psi;
Horton		unk	104.2	-52	-	-	Y	Dry	N	
Mudge B12R		1	75.4	-44	-30	-	Y	Dry	N	
Mudge A002		2	354.9	-50	-	-	Y	Dry	N	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H₂O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	9-7-23	1	1.1	-35	-46	-	Y	Dry	No	
Florance GC J 16		2	26.8	-3	-	-	Y	Dry	No	
Sandoval GC A 1A		3	3.7	Broken	Broken	5375.3	Y	Dry	No	
Jacquez GC B 3E		1	41.1	-24	-	3833.6	Y	Dry	No	
Al Elliot D 002		5	35.6	-10	-12	4779.2	Y	Dry	No	
GCU H180		All	-	-	-	7384.3	Y	-	-	190°F 1) 1.8 psi 2) 0.7 psi 3) 2.5 psi 4) 2.0 psi 5) 1.5 psi
Heaton LS 5		Unk	81.5	-54	-	-	Y	Dry	No	#3 A leak could be heard from Valve
Mudge B12 R		1	42.8	-44	-30	-	Y	Dry	No	
Mudge A 002 MV	V	2	228.6	-51	-	-	Y	Dry	No	

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	10-18-2023	1	201.5	-36	-46	-	Y	31.5 2	N	Water below drain level
Florance GC J 16		2	156.8	-6	-	-	Y	22.25	Y	Leaking from basket on drain valve
Sandoval GC A 1A		3	48.6	Broken	0	6358.6	Y	29.5	Y	
Jacquez GC B 3E		1	227.5	-24	-	4817.4	Y	25.5	Y	
Al Elliot D 002		5	93.7	-10	-14	5354.9	Y	29.75	Y	
GCU H180		All	-	-	-	8368.2	Y	-	-	140°F 2.0 PSI 1)0.0 2)0.0 3)0.0 4)0.0 The tubing at Vacuum Station #2 is damaged and leaking
Heaton LS 5		Unk	123.4	-54	-	-	Y	Day	N	
Mudge B12 R	✓	1	103.6	-45	-30	-	Y	29.75	Y	
Mudge A 002 MV		2	327.2	-52	-	-	Y	Day	N	

Notes:

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

SVE Monitoring

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

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

Notes:

SVE - Soil Vapor Extraction

OVM - Organic Vapor Monitoring

ppm- parts per million

H2O"- inches water

cfm- cubic feet per minute

bTOD- below top of drum

SVE Monitoring

Location	Date	SVE Point(s)	Exhaust OVM (ppm)	Vacuum Pressure upstream of drum (H2O")	Vacuum Pressure downstream of drum (H2O")	Run Time (Hours)	System Operational at Arrival?	Drum H2O (inches bTOD)	Drum Drained?	Comments
Atlantic A LS 9A	12/15/23	1	19.3	-40	-50	-	Yes	26	Y	
Florance GC J 16	12/15/23	2	4.05 60.3	-4.0	-	-	Yes	29	Y	Drum loadout leaking from gasket
Sandoval GC A 1A	12/15/23 12/15/23	3	135.8	3.0	0	7238.4	Yes	19	Y	
Jacquez GC B 3E	12/15/23	1	1.4	-2	-	Not Readable	Yes	29	Y	
Al Elliot D 002	12/15/23	5	110.3	-10	-10	6269.5	Yes	21.5	Y	
GCU H180	12/14/23	All	-	-	-	8656.4	8656.4 No	-	-	Not Running on arrival. sounds like its not running properly
Heaton LS 5	12/14/23	Unk	101.5	34	-	-	Yes	29	Y	
Mudge B12 R	12/14/23	1	180.6	-40	-10	-	Yes	30	Y	
Mudge A 002 MV	12/15/23	2	108.2	-50	30 05	-	Yes	-	-	Dry

Notes:

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

at 85°F
152.0
all other
psi indicators
@ 0.0

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

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

CONDITIONS

Action 301608

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID:
	329736
	Action Number:
	301608
Action Type:	
[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)	

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Jacquez GC B #003E Gas Monitoring Lab Results and field forms are accepted for the record for the last three (3) quarters of 2023.	3/29/2024