



GALSON

**James Johnston
Brigham Young University
2045 Life Sciences Building
Provo, UT 84602**

August 17, 2023

Account# 38642

Login# L602168

Dear James Johnston:

Enclosed are the analytical results for the samples received by our laboratory on August 15, 2023. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

A handwritten signature in black ink that reads 'Lisa Swab'. The signature is written in a cursive, flowing style.

**Lisa Swab
Laboratory Director**

Enclosure(s)

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <http://www.sgsgalson.com> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms



GALSON

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client : Brigham Young University
Site : UTAH COUNTY
Project No. : WILDFIRE STUDY
Date Sampled : 13-JUL-23 - 02-AUG-23
Date Received : 15-AUG-23

Account No.: 38642
Login No. : L602168
Date Analyzed : 16-AUG-23 - 17-AUG-23
Report ID : 1374540

Ozone

<u>Sample ID</u>	<u>Lab ID</u>	<u>Air Vol</u> <u>liter</u>	<u>Front</u> <u>ug</u>	<u>Back</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mg/m3</u>	<u>ppm</u>
047	L602168-1	667.91176	33	6.6	*40	*0.060	*0.030
048	L602168-2	683.54045	30	<4.0	30	0.043	0.022
049	L602168-3	692.79132	26	<4.0	26	0.038	0.019
050	L602168-4	677.41778	39	<4.0	39	0.058	0.030
49A	L602168-5	715.34096	34	<4.0	34	0.047	0.024
50A	L602168-6	702.77638	36	<4.0	36	0.052	0.026
51	L602168-7	695.88106	25	<4.0	25	0.036	0.018
52	L602168-8	681.60823	33	<4.0	33	0.049	0.025
53	L602168-9	689.52967	25	<4.0	25	0.037	0.019
54	L602168-10	675.64207	34	7.1	*41	*0.061	*0.031
55	L602168-11	696.1265	<4.0	<4.0	<4.0	<0.0057	<0.0029
56	L602168-12	686.54638	<4.0	<4.0	<4.0	<0.0058	<0.0030
57	L602168-13	706.78384	<4.0	<4.0	<4.0	<0.0057	<0.0029
58	L602168-14	688.69666	40	4.3	*45	*0.065	*0.033
59	L602168-15	703.32086	<4.0	<4.0	<4.0	<0.0057	<0.0029
60	L602168-16	698.60033	38	<4.0	38	0.054	0.028

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 4.0 ug
Analytical Method : mod. OSHA ID-214; IC
Collection Media : 2 Trtd 37mm GFF

Submitted by: MCM
Date : 17-AUG-23
Supervisor : MCM

Approved by: KLS



GALSON

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
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Client : Brigham Young University
Site : UTAH COUNTY
Project No. : WILDFIRE STUDY
Date Sampled : 13-JUL-23 - 02-AUG-23
Date Received : 15-AUG-23

Account No.: 38642
Login No. : L602168
Date Analyzed : 16-AUG-23 - 17-AUG-23
Report ID : 1374540

Ozone

<u>Sample ID</u>	<u>Lab ID</u>	<u>Air Vol</u> <u>liter</u>	<u>Front</u> <u>ug</u>	<u>Back</u> <u>ug</u>	<u>Total</u> <u>ug</u>	<u>Conc</u> <u>mq/m3</u>	<u>ppm</u>
61	L602168-17	699.9814	22	<4.0	22	0.031	0.016
62	L602168-18	700.18207	42	<4.0	42	0.059	0.030

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 4.0 ug
Analytical Method : mod. OSHA ID-214; IC
Collection Media : 2 Trtd 37mm GFF

Submitted by: MCM
Date : 17-AUG-23
Supervisor : MCM

Approved by: KLS



GALSON

LABORATORY FOOTNOTE REPORT

6601 Kirkville Road
East Syracuse, NY 13057
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Client Name : Brigham Young University
Site : UTAH COUNTY
Project No. : WILDFIRE STUDY

Date Sampled : 13-JUL-23 - 02-AUG-23 Account No.: 38642
Date Received: 15-AUG-23 Login No. : L602168
Date Analyzed: 16-AUG-23 - 17-AUG-23

L602168 (Report ID: 1374540):

OZONE results have been corrected for the average background found on the media:
front and back sections = 1.4579 ug for lot #0472 (samples 1-18).
SOPs: ii-oid214(18)
Results reported as (*) designate possible breakthrough or migration.
Reported results may be biased low.

L602168 (Report ID: 1374540):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Ozone	+/-11.6%	97.7%

1602168

SGS**GALSON**
LABORATORIES☐ New Client?Report To*: **Jim Johnston**

Client Account No.*:

**2045 Life Sciences Building
Brigham Young University
Provo, UT 84602**Invoice To*: **Jim Johnston****2045 Life Sciences Building
Brigham Young University
Provo, UT 84602**

123

782287918849
Date: 08/15/23
Shipper: FEDEX
Initials: MMM

Prep: UNKNOWN

Phone No.: (801) 472-9661

Cell No.: (801) 472-9661

Email Results to: **Seth Van Roosendaal**Email address: **vanroosendaalsethm@gmail.com**

Phone No.: (801) 472-9661

Email: **james_johnston@byu.edu**

P.O. No.:

Credit Card: ☐ Card on File ☒ Call for Credit Card Info.☐ Samples submitted using the FreePumpLoan™ Program☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:

(surcharge)

Site Name: **Utah County**Project: **Wildfire Study**Sampled by: **IEQ Team**

Comments:

List description of industry or Process/interferences present in sampling area:

State samples were
collected in (e.g., NY)
UT

Please indicate which OEL this data will be used for:

☐ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA
☐ MSHA ☒ Other (specify):

Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml, min, in, 2, cm, 2, ft	Analysis Requested*	Method Reference*	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
047	07/13/20	3pc Nitrate Treated GFF	667.91176	L	Ozone	Mod OSHA ID-214	
048	07/13/20	3pc Nitrate Treated GFF	683.54045	L	Ozone	Mod OSHA ID-214	
049	07/13/20	3pc Nitrate Treated GFF	692.79132	L	Ozone	Mod OSHA ID-214	
050	07/13/20	3pc Nitrate Treated GFF	677.41778	L	Ozone	Mod OSHA ID-214	
49A	07/20/20	3pc Nitrate Treated GFF	715.34096	L	Ozone	Mod OSHA ID-214	
50A	07/20/20	3pc Nitrate Treated GFF	702.77638	L	Ozone	Mod OSHA ID-214	
51	07/20/20	3pc Nitrate Treated GFF	695.88106	L	Ozone	Mod OSHA ID-214	
52	07/20/20	3pc Nitrate Treated GFF	681.60823	L	Ozone	Mod OSHA ID-214	
53	07/21/20	3pc Nitrate Treated GFF	689.52967	L	Ozone	Mod OSHA ID-214	
54	07/21/20	3pc Nitrate Treated GFF	675.64207	L	Ozone	Mod OSHA ID-214	
55	07/21/20	3pc Nitrate Treated GFF	696.1265	L	Ozone	Mod OSHA ID-214	

^Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☐ Use method(s) listed on COC

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date	Time	Received by:	Print Name/Signature	Date	Time
Relinquished by:	Seth Van Roosendaal	08/09/20	15:26	Received by:	Megan M. McGrath	8/15/23	11:54
Relinquished by:				Received by:			

Page 6 of 7
* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page ____ of ____



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LABORATORIES

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☐ New Client?

Report To: Jim Johnston

2045 Life Sciences Building

Brigham Young University

Provo, UT 84602

Client Account No.*:

Phone No.*: (801) 472-9661

Cell No.: (801) 472-9661

Email Results to: Seth Van Roosendaal

Email address: vanroosendaalsethm@gmail.com

Invoice To: Jim Johnston

2045 Life Sciences Building

Brigham Young University

Provo, UT 84602

Phone No.: (801) 472-9661

Email: james_johnston@byu.edu

P.O. No.:

Credit Card: ☐ Card on File ☒ Call for Credit Card Info.

☐ Samples submitted using the FreePumpLoan™ Program

☐ Samples submitted using the FreeSamplingBadges™ Program

Need Results By:	(surcharge)	Site Name:	Project:	Sampled by:			
<input checked="" type="checkbox"/> Standard	0%	Utah County	Wildfire Study	IEQ Team			
<input type="checkbox"/> 4 Business Days	35%	Comments:					
<input type="checkbox"/> 3 Business Days	50%						
<input type="checkbox"/> 2 Business Days	75%						
<input type="checkbox"/> Next Day by 6pm	100%						
<input type="checkbox"/> Next Day by Noon	150%	List description of industry or Process/interferences present in sampling area:			State samples were collected in (e.g., NY) UT	Please indicate which OEL this data will be used for:	
<input type="checkbox"/> Same Day	200%					<input type="checkbox"/> OSHA PEL <input type="checkbox"/> ACGIH TLV <input type="checkbox"/> Cal OSHA <input type="checkbox"/> MSHA <input checked="" type="checkbox"/> Other (specify):	
Sample Identification* (Maximum of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml, min, in2, cm2, ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
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58	08/02/20	3pc Nitrate Treated GFF	688.69666	L	Ozone	Mod OSHA ID-214	
59	08/02/20	3pc Nitrate Treated GFF	703.32086	L	Ozone	Mod OSHA ID-214	
60	08/02/20	3pc Nitrate Treated GFF	698.60033	L	Ozone	Mod OSHA ID-214	
61	08/02/20	3pc Nitrate Treated GFF	699.98140	L	Ozone	Mod OSHA ID-214	
62	08/02/20	3pc Nitrate Treated GFF	700.18207	L	Ozone	Mod OSHA ID-214	

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For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:

Chain of Custody	Print Name/Signature	Date	Time	Received by:	Print Name/Signature	Date	Time
Relinquished by:	Seth Van Roosendaal	08/09/20	15:31	Received by:	Megan M. McGrath	8/15/20	11:54
Relinquished by:				Received by:			