



September 07, 2023

Eagle Environmental Consulting, LLC

Martin C Eckert III

8000 W 44th Ave

Wheat Ridge CO 80033

Project Name - Noble - Macbain (Bainbridge) #1 Project Number - [none]

Attached are your analytical results for Noble - Macbain (Bainbridge) #1 received by Origins Laboratory, Inc. August 23, 2023. This project is associated with Origins project number Y308607-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows: "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.  
303.433.1322  
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645



Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Macbain (Bainbridge) #1

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Background-02@0-2.5'	Y308607-01	Soil	August 23, 2023 11:55	08/23/2023 15:17
Background-03@0-2.5'	Y308607-02	Soil	August 23, 2023 12:02	08/23/2023 15:17
Background-04@0-2.5'	Y308607-03	Soil	August 23, 2023 12:05	08/23/2023 15:17
Background-05@0-2.5'	Y308607-04	Soil	August 23, 2023 12:10	08/23/2023 15:17
Background-06@0-2.5'	Y308607-05	Soil	August 23, 2023 12:11	08/23/2023 15:17

Origins Laboratory, Inc.

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Jordan A. Bynon For Noelle Doyle Mathis, President



# ORIGINS LABORATORY, INC

Eagle Environmental Consulting, LLC  
8000 W 44th Ave  
Wheat Ridge CO 80033

Martin C Eckert III  
Project Number: [none]  
Project: Noble - Macbain (Bainbridge) #1

Origins Laboratory F-012207-01-R1  
Effective Date: 01/09/12

Origins Work Order: 4503007 Sample Receipt Checklist

Client: Macbain (Bainbridge) #15  
Client Project ID: Eagle

Checklist Completed by: EHS Shipped Via: HO  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 8/23/23 Airbill #: N/A

Matrix(s) Received: (Check all that apply):  Soil/Solid  Water  Other: \_\_\_\_\_

Cooler Number/Temperature: 1155 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe) \_\_\_\_\_ °C

Thermometer ID: 7004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – Is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 8/25/23

Origins Laboratory, Inc.

[Signature]

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Martin C Eckert III  
Project Number: [none]  
Project: Noble - Macbain (Bainbridge) #1

Background-02@0-2.5'  
8/23/2023 11:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y308607-01 (Soil)

**Metals by Saturated Paste by EPA 6010**

Calcium	22.8	0.499	meq/L	10	[CALC]	KAP	08/30/2023	09/01/2023	
Magnesium	44.0	0.823	"	"	"	KAP	"	"	
Sodium	109	0.435	"	"	"	KAP	"	"	

**pH in Soil by 9045D**

pH	8.08		pH Units	1	B3H3012	HJD	08/30/2023	08/31/2023	
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**SAR by 20B Saturated Paste**

SAR	18.9	0.0100	SAR	1	B3H3002	KAP	08/30/2023	09/01/2023	
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**Table 915 metals by EPA 6020B**

Arsenic	2.68	0.0861	mg/kg	10	B3H2334	CIH	08/23/2023	08/25/2023	
Barium	67.7	8.61	"	"	"	CIH	"	"	
Lead	9.62	8.61	"	"	"	CIH	"	"	
Selenium	0.154	0.0861	"	"	"	CIH	"	"	

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 Project Number: [none]  
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**Background-03@0-2.5'**  
**8/23/2023 12:02:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y308607-02 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	24.9	0.499	meq/L	10	[CALC]	KAP	08/30/2023	09/01/2023	
Magnesium	18.5	0.823	"	"	"	KAP	"	"	
Sodium	37.2	0.435	"	"	"	KAP	"	"	

**pH in Soil by 9045D**

pH	7.81		pH Units	1	B3H3012	HJD	08/30/2023	08/31/2023	
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**SAR by 20B Saturated Paste**

SAR	7.99	0.0100	SAR	1	B3H3002	KAP	08/30/2023	09/01/2023	
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**Table 915 metals by EPA 6020B**

Arsenic	2.64	0.0947	mg/kg	10	B3H2334	CIH	08/23/2023	08/25/2023	
Barium	70.4	9.47	"	"	"	CIH	"	"	
Lead	ND	9.47	"	"	"	CIH	"	"	
Selenium	0.182	0.0947	"	"	"	CIH	"	"	

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**Background-04@0-2.5'**  
**8/23/2023 12:05:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y308607-03 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	22.9	0.499	meq/L	10	[CALC]	KAP	08/30/2023	09/01/2023	
Magnesium	12.7	0.823	"	"	"	KAP	"	"	
Sodium	18.5	0.435	"	"	"	KAP	"	"	

**pH in Soil by 9045D**

pH	7.92		pH Units	1	B3H3012	HJD	08/30/2023	08/31/2023	
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**SAR by 20B Saturated Paste**

SAR	4.38	0.0100	SAR	1	B3H3002	KAP	08/30/2023	09/01/2023	
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**Table 915 metals by EPA 6020B**

Arsenic	2.92	0.0925	mg/kg	10	B3H2334	CIH	08/23/2023	08/25/2023	
Barium	74.9	9.25	"	"	"	CIH	"	"	
Lead	ND	9.25	"	"	"	CIH	"	"	
Selenium	ND	0.0925	"	"	"	CIH	"	"	

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**Background-05@0-2.5'**  
**8/23/2023 12:10:00PM**

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y308607-04 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	22.4	0.499	meq/L	10	[CALC]	KAP	08/30/2023	09/01/2023	
Magnesium	13.8	0.823	"	"	"	KAP	"	"	
Sodium	51.9	0.435	"	"	"	KAP	"	"	

**pH in Soil by 9045D**

pH	8.14		pH Units	1	B3H3012	HJD	08/30/2023	08/31/2023	
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**SAR by 20B Saturated Paste**

SAR	12.2	0.0100	SAR	1	B3H3002	KAP	08/30/2023	09/01/2023	
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**Table 915 metals by EPA 6020B**

Arsenic	3.41	0.0953	mg/kg	10	B3H2334	CIH	08/23/2023	08/25/2023	
Barium	80.7	9.53	"	"	"	CIH	"	"	
Lead	ND	9.53	"	"	"	CIH	"	"	
Selenium	0.188	0.0953	"	"	"	CIH	"	"	

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**Background-06@0-2.5'**  
**8/23/2023 12:11:00PM**

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y308607-05 (Soil)**

**Metals by Saturated Paste by EPA 6010**

Calcium	24.1	0.499	meq/L	10	[CALC]	KAP	08/30/2023	09/01/2023	
Magnesium	18.6	0.823	"	"	"	KAP	"	"	
Sodium	29.8	0.435	"	"	"	KAP	"	"	

**pH in Soil by 9045D**

pH	7.88		pH Units	1	B3H3012	HJD	08/30/2023	08/31/2023	
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**SAR by 20B Saturated Paste**

SAR	6.44	0.0100	SAR	1	B3H3002	KAP	08/30/2023	09/01/2023	
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**Table 915 metals by EPA 6020B**

Arsenic	2.78	0.0959	mg/kg	10	B3H2334	CIH	08/23/2023	08/25/2023	
Barium	103	9.59	"	"	"	CIH	"	"	
Lead	10.7	9.59	"	"	"	CIH	"	"	
Selenium	0.193	0.0959	"	"	"	CIH	"	"	

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**Metals by EPA 6000/7000 Series Methods - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3H2334 - EPA 3050B**

Prepared: 08/23/2023 Analyzed: 08/25/2023

**Blank (B3H2334-BLK1)**

Arsenic	ND	0.000100	mg/kg							
Barium	ND	0.0100	"							
Cadmium	ND	0.000100	"							
Copper	ND	0.0100	"							
Lead	ND	0.0100	"							
Nickel	ND	0.0100	"							
Selenium	ND	0.000100	"							
Silver	ND	0.000100	"							
Zinc	ND	0.100	"							

**LCS (B3H2334-BS1)**

Prepared: 08/23/2023 Analyzed: 08/25/2023

Arsenic	0.0477	0.000100	mg/kg	0.0500		95.4	80-120			
Barium	4.93	0.0100	"	5.00		98.6	80-120			
Cadmium	0.0489	0.000100	"	0.0500		97.9	80-120			
Copper	0.515	0.0100	"	0.500		103	80-120			
Lead	0.0484	0.0100	"	0.0500		96.7	80-120			
Nickel	0.0488	0.0100	"	0.0500		97.7	80-120			
Selenium	0.0479	0.000100	"	0.0500		95.8	80-120			
Silver	0.0487	0.000100	"	0.0500		97.4	80-120			
Zinc	0.489	0.100	"	0.500		97.8	80-120			

**Matrix Spike (B3H2334-MS1)**

Source: Y308598-01

Prepared: 08/23/2023 Analyzed: 08/25/2023

Arsenic	6.40	0.0975	mg/kg	4.88	2.88	72.3	75-125			QM-07
Barium	547	9.75	"	488	66.9	98.4	75-125			
Cadmium	5.11	0.0975	"	4.88	0.242	99.9	75-125			
Copper	59.8	9.75	"	48.8	13.7	94.5	75-125			
Lead	17.1	9.75	"	4.88	14.7	49.0	75-125			QM-07

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**Metals by EPA 6000/7000 Series Methods - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B3H2334 - EPA 3050B

**Matrix Spike (B3H2334-MS1)**

Source: Y308598-01

Prepared: 08/23/2023 Analyzed: 08/25/2023

Nickel	16.0	9.75	mg/kg	4.88	14.7	26.2	75-125			QM-07
Selenium	4.09	0.0975	"	4.88	0.306	77.5	75-125			
Silver	4.89	0.0975	"	4.88	0.0316	99.6	75-125			
Zinc	98.8	97.5	"	48.8	65.6	68.2	75-125			QM-07

**Matrix Spike Dup (B3H2334-MSD1)**

Source: Y308598-01

Prepared: 08/23/2023 Analyzed: 08/25/2023

Arsenic	7.33	0.0956	mg/kg	4.78	2.88	93.1	75-125	13.5	20	
Barium	547	9.56	"	478	66.9	100	75-125	0.0601	20	
Cadmium	5.07	0.0956	"	4.78	0.242	101	75-125	0.757	20	
Copper	61.7	9.56	"	47.8	13.7	100	75-125	3.12	20	
Lead	19.7	9.56	"	4.78	14.7	106	75-125	14.6	20	
Nickel	23.0	9.56	"	4.78	14.7	174	75-125	36.0	20	QM-07
Selenium	3.86	0.0956	"	4.78	0.306	74.3	75-125	5.80	20	QM-07
Silver	4.83	0.0956	"	4.78	0.0316	100	75-125	1.15	20	
Zinc	120	95.6	"	47.8	65.6	115	75-125	19.7	20	

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**Classical Chemistry Parameters - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3H3002 - Saturated Paste Metals**

**Blank (B3H3002-BLK1)**

Prepared: 08/30/2023 Analyzed: 09/01/2023

Calcium PPM	ND	10.0	mg/L							
SAR	ND	0.0100	SAR							
Magnesium PPM	ND	10.0	mg/L							
Sodium PPM	ND	10.0	"							

**Duplicate (B3H3002-DUP1)**

Source: Y308577-01

Prepared: 08/30/2023 Analyzed: 09/01/2023

Calcium PPM	55.5	10.0	mg/L		43.8			23.6	50	
SAR	ND	0.0100	SAR		1.71				200	
Magnesium PPM	23.1	10.0	mg/L		18.3			23.4	50	
Sodium PPM	66.4	10.0	"		53.4			21.6	50	

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**Saturated Paste - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3H3012 - Saturated Paste pH/EC**

**Duplicate (B3H3012-DUP1)**

**Source: Y308577-01**

Prepared: 08/30/2023 Analyzed: 08/31/2023

pH	7.44		pH Units		7.33			1.49	25	
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Jordan A. Bynon For Noelle Doyle Mathis, President

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### Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
  - ND Analyte NOT DETECTED at or above the reporting limit
  - RPD Relative Percent Difference
- All soil results are reported at a wet weight basis.

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