

April 01, 2024

Tasman Geosciences

Andy Sagen

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - McHale 2-5

Project Number - [none]

Attached are your analytical results for KMG - McHale 2-5 received by Origins Laboratory, Inc. March 18, 2024. This project is associated with Origins project number Y403451-01.

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



Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - McHale 2-5

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WH-B01R@6'	Y403451-01	Soil	March 18, 2024 11:00	03/18/2024 15:20
FL-B01R@4'	Y403451-02	Soil	March 18, 2024 11:02	03/18/2024 15:20

Origins Laboratory, Inc.



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Andy Sagen
 Project Number: [none]
 Project: KMG - McHale 2-5

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


Sample Receipt Checklist

Origins Work Order: 4403451 Client: Tasman
 Client Project ID: McHale 2-5
 Checklist Completed by: EHSTWJH Shipped Via: HO
 Date/time completed: 3/18/12 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1135 °C 1 °C 1 °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 ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" 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"/>	
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"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" 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"/>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (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 HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

⁽¹⁾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.

[Signature] 3/18/12
 Reviewed by (Project Manager) Date/Time Reviewed

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 Project Number: [none]
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WH-B01R@6'
3/18/2024 11:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403451-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	ND	0.499	meq/L	10	[CALC]	DT	03/19/2024	03/22/2024	
Magnesium	ND	0.823	"	"	"	DT	"	"	
Sodium	2.56	0.435	"	"	"	DT	"	"	

pH in Soil by 9045D

pH	8.78		pH Units	1	B4C1923	EAL	03/19/2024	03/20/2024	
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SAR by 20B Saturated Paste

SAR	5.55	0.0100	SAR	1	B4C1916	DT	03/19/2024	03/22/2024	
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Andy Sagen
Project Number: [none]
Project: KMG - McHale 2-5

FL-B01R@4'

3/18/2024 11:02:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y403451-02 (Soil)

Table 915 metals by EPA 6020B

Lead	31.8	0.955	mg/kg	10	B4C1822	HJD	03/18/2024	03/27/2024	
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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
Batch B4C1822 - EPA 3050B										
Blank (B4C1822-BLK1)					Prepared: 03/18/2024 Analyzed: 03/27/2024					
Lead	ND	1.00	mg/kg							
LCS (B4C1822-BS1)					Prepared: 03/18/2024 Analyzed: 03/27/2024					
Lead	4.77	1.00	mg/kg	5.00		95.4	80-120			
Matrix Spike (B4C1822-MS1)					Source: Y403448-15 Prepared: 03/18/2024 Analyzed: 03/27/2024					
Lead	6.90	0.975	mg/kg	4.88	2.04	99.7	75-125			
Matrix Spike Dup (B4C1822-MSD1)					Source: Y403448-15 Prepared: 03/18/2024 Analyzed: 03/27/2024					
Lead	5.80	0.873	mg/kg	4.36	2.04	86.1	75-125	17.4	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 B4C1916 - Saturated Paste Metals

Blank (B4C1916-BLK1)

Prepared: 03/19/2024 Analyzed: 03/22/2024

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

Duplicate (B4C1916-DUP1)

Source: Y403448-01

Prepared: 03/19/2024 Analyzed: 03/22/2024

SAR	ND	0.0100	SAR	0.641					200	
Calcium PPM	23.7	10.0	mg/L	24.1				1.46	50	
Magnesium PPM	4.66	10.0	"	4.71				1.07	50	
Sodium PPM	13.8	10.0	"	13.1				5.26	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 B4C1923 - Saturated Paste pH/EC

Duplicate (B4C1923-DUP1)

Source: Y403448-01

Prepared: 03/19/2024 Analyzed: 03/20/2024

pH	7.89		pH Units		8.11			2.75	25	
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Notes and Definitions

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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