



December 12, 2022

Tasman Geosciences

Andy Sagen

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - I & J 7-6 & Bulthaup 21-6 Project Number - [none]

Attached are your analytical results for KMG - I & J 7-6 & Bulthaup 21-6 received by Origins Laboratory, Inc. December 02, 2022. This project is associated with Origins project number Y212050-01.

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
21-6-WH-B01@6'	Y212050-01	Soil	December 2, 2022 9:30	12/02/2022 16:10
7-6-WH-B01@6'	Y212050-02	Soil	December 2, 2022 9:32	12/02/2022 16:10
21-6-FL-B01@4'	Y212050-03	Soil	December 2, 2022 9:34	12/02/2022 16:10
7-6-FL-B01@4'	Y212050-04	Soil	December 2, 2022 9:36	12/02/2022 16:10
7,21-6-BG01@3'	Y212050-05	Soil	December 2, 2022 9:38	12/02/2022 16:10
7,21-6-BG01@6'	Y212050-06	Soil	December 2, 2022 9:40	12/02/2022 16:10
7,21-6-BG02@3'	Y212050-07	Soil	December 2, 2022 9:42	12/02/2022 16:10
7,21-6-BG02@6'	Y212050-08	Soil	December 2, 2022 9:44	12/02/2022 16:10
7,21-6-BG03@3'	Y212050-09	Soil	December 2, 2022 9:46	12/02/2022 16:10
7,21-6-BG03@6'	Y212050-10	Soil	December 2, 2022 9:48	12/02/2022 16:10
7,21-6-BG04@3'	Y212050-11	Soil	December 2, 2022 9:50	12/02/2022 16:10
7,21-6-BG04@6'	Y212050-12	Soil	December 2, 2022 9:52	12/02/2022 16:10

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4212 050

Client: Tasman

Client Project ID: IJ 7-6 + Bulthaup

Checklist Completed by: TSH/DE

Shipped Via: HU

Date/time completed: 12/02/22

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1 / 9.0 °C _____ / _____ °C _____ / _____ °C (Describe)

Thermometer ID: T04

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]
Reviewed by (Project Manager)

12/02/2022
Date/Time Reviewed

Origins Laboratory, Inc.

[Signature]

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

21-6-WH-B01@6'
12/2/2022 9:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.455	0.0998	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0217	ADM	12/02/2022	12/02/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	72.3 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0227	HKS	12/02/2022	12/02/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Naphthalene	ND	0.00380	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130			"	"	"
Surrogate: Toluene-d8	93.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

21-6-WH-B01@6'
12/2/2022 9:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	0.856	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	1.67	0.823	"	"	"	KAP	"	"
Sodium	2.03	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.31		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	1.81		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.497	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7-6-WH-B01@6'
12/2/2022 9:32:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-02 (Soil)

Boron (DTPA Sorbitol)

Boron	0.366	0.0991	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0217	ADM	12/02/2022	12/02/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	70.6 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0227	HKS	12/02/2022	12/02/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Naphthalene	ND	0.00380	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4	116 %	70-130			"	"	"
Surrogate: Toluene-d8	93.2 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

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6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7-6-WH-B01@6'

12/2/2022 9:32:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-02 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	1.10	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	ND	0.823	"	"	"	KAP	"	"
Sodium	1.26	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.58		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	1.36		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.404	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

21-6-FL-B01@4'
12/2/2022 9:34:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-03 (Soil)

Boron (DTPA Sorbitol)

Boron	0.120	0.0996	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0217	ADM	12/02/2022	12/02/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	74.0 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0227	HKS	12/02/2022	12/02/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Naphthalene	ND	0.00380	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4	117 %	70-130			"	"	"
Surrogate: Toluene-d8	93.9 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

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6855 West 119th Avenue
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Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

21-6-FL-B01@4'
12/2/2022 9:34:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-03 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	1.08	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	0.860	0.823	"	"	"	KAP	"	"
Sodium	ND	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.36		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	0.414		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.278	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7-6-FL-B01@4'
12/2/2022 9:36:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-04 (Soil)

Boron (DTPA Sorbitol)

Boron	0.476	0.0988	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0217	ADM	12/02/2022	12/02/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	73.4 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0227	HKS	12/02/2022	12/02/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Benzene	ND	0.00200	"	"	"	HKS	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	HKS	"	"	U
Naphthalene	ND	0.00380	"	"	"	HKS	"	"	U
Toluene	ND	0.00200	"	"	"	HKS	"	"	U
Xylenes, total	ND	0.00200	"	"	"	HKS	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	HKS	"	"	U

Surrogate: 1,2-Dichloroethane-d4	119 %	70-130			"	"	"
Surrogate: Toluene-d8	93.9 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

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6855 West 119th Avenue

Broomfield CO 80020

Andy Sagen

Project Number: [none]

Project: KMG - I & J 7-6 & Bulthaup 21-6

7-6-FL-B01@4'

12/2/2022 9:36:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y212050-04 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	2.14	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	2.69	0.823	"	"	"	KAP	"	"
Sodium	ND	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.19		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	0.176		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.530	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG01@3'
12/2/2022 9:38:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-05 (Soil)

Boron (DTPA Sorbitol)

Boron	1.06	0.100	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	15.1	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	23.5	0.823	"	"	"	KAP	"	"
Sodium	22.9	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	7.97		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	5.21		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	5.11	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG01@6'
12/2/2022 9:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-06 (Soil)

Boron (DTPA Sorbitol)

Boron	1.13	0.0999	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	6.79	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	9.95	0.823	"	"	"	KAP	"	"
Sodium	12.4	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.08		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	4.27		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.71	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG02@3'
12/2/2022 9:42:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-07 (Soil)

Boron (DTPA Sorbitol)

Boron	0.334	0.0988	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	1.85	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	3.33	0.823	"	"	"	KAP	"	"
Sodium	3.53	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.28		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	2.19		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.937	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG02@6'
12/2/2022 9:44:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-08 (Soil)

Boron (DTPA Sorbitol)

Boron	0.316	0.0998	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	2.33	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	2.80	0.823	"	"	"	KAP	"	"
Sodium	3.39	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.21		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	2.12		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.936	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG03@3'
12/2/2022 9:46:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-09 (Soil)

Boron (DTPA Sorbitol)

Boron	0.442	0.0993	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	1.05	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	4.05	0.823	"	"	"	KAP	"	"
Sodium	2.79	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.38		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	1.75		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.864	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG03@6'
12/2/2022 9:48:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-10 (Soil)

Boron (DTPA Sorbitol)

Boron	0.402	0.100	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	2.42	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	3.96	0.823	"	"	"	KAP	"	"
Sodium	2.74	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.19		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	1.54		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.990	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG04@3'
12/2/2022 9:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-11 (Soil)

Boron (DTPA Sorbitol)

Boron	0.645	0.0989	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	2.89	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	6.97	0.823	"	"	"	KAP	"	"
Sodium	12.0	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.27		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	5.40		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.21	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-BG04@6'
12/2/2022 9:52:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212050-12 (Soil)

Boron (DTPA Sorbitol)

Boron	0.553	0.0995	mg/L	1	B2L0502	KAP	12/05/2022	12/07/2022
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Metals by Saturated Paste by EPA 6010

Calcium	3.74	0.499	meq/L	10	[CALC]	KAP	12/05/2022	12/06/2022
Magnesium	7.35	0.823	"	"	"	KAP	"	"
Sodium	11.6	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.17		pH Units	1	B2L0506	HJD	12/05/2022	12/06/2022
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SAR by 20B Saturated Paste

SAR	4.92		SAR	1	B2L0503	KAP	12/05/2022	12/06/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	2.30	0.00500	mmhos/cm	1	B2L0506	HJD	12/05/2022	12/06/2022
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0217 - EPA 3580										
Blank (B2L0217-BLK1)					Prepared: 12/02/2022 Analyzed: 12/02/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	23		"	24.9		92.6	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0217 - EPA 3580

LCS (B2L0217-BS1)

Prepared: 12/02/2022 Analyzed: 12/02/2022

Diesel (C10-C28)	1150	50.0	mg/kg	1000		115	70-130			
Residual Range Organics (C28-C40)	1070	200	"	1000		107	70-130			
Surrogate: o-Terphenyl	46		"	49.8		92.4	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0217 - EPA 3580

Matrix Spike (B2L0217-MS1)		Source: Y212044-01			Prepared: 12/02/2022 Analyzed: 12/02/2022					
Diesel (C10-C28)	1010	50.0	mg/kg	1000	ND	101	70-130			
Residual Range Organics (C28-C40)	896	200	"	1000	ND	89.6	70-130			
Surrogate: o-Terphenyl	35		"	49.8		70.3	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0217 - EPA 3580										
Matrix Spike Dup (B2L0217-MSD1)		Source: Y212044-01			Prepared: 12/02/2022 Analyzed: 12/02/2022					
Diesel (C10-C28)	1050	50.0	mg/kg	1000	ND	105	70-130	4.21	35	
Residual Range Organics (C28-C40)	903	200	"	1000	ND	90.3	70-130	0.770	35	
Surrogate: o-Terphenyl	36		"	49.8		72.7	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0227 - EPA 5030 (soil)										
Blank (B2L0227-BLK1)					Prepared: 12/02/2022 Analyzed: 12/02/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		114	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0227 - EPA 5030 (soil)										
LCS (B2L0227-BS1)					Prepared: 12/02/2022 Analyzed: 12/02/2022					
1,2,4-Trimethylbenzene	0.0828	0.00200	mg/kg	0.100		82.8	70-130			
1,3,5-Trimethylbenzene	0.0823	0.00200	"	0.100		82.3	70-130			
Benzene	0.0920	0.00200	"	0.100		92.0	70-130			
Ethylbenzene	0.0816	0.00200	"	0.100		81.6	70-130			
Naphthalene	0.0848	0.00380	"	0.100		84.8	70-130			
Toluene	0.0860	0.00200	"	0.100		86.0	70-130			
o-Xylene	0.0823	0.00200	"	0.100		82.3	70-130			
m,p-Xylene	0.160	0.00400	"	0.200		80.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		112	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0227 - EPA 5030 (soil)										
LCS Dup (B2L0227-BSD1)					Prepared: 12/02/2022 Analyzed: 12/02/2022					
1,2,4-Trimethylbenzene	0.0737	0.00200	mg/kg	0.100		73.7	70-130	11.6	20	
1,3,5-Trimethylbenzene	0.0737	0.00200	"	0.100		73.7	70-130	11.0	20	
Benzene	0.0853	0.00200	"	0.100		85.3	70-130	7.55	20	
Ethylbenzene	0.0728	0.00200	"	0.100		72.8	70-130	11.4	20	
Naphthalene	0.0812	0.00380	"	0.100		81.2	70-130	4.29	20	
Toluene	0.0794	0.00200	"	0.100		79.4	70-130	7.93	20	
o-Xylene	0.0753	0.00200	"	0.100		75.3	70-130	8.91	20	
m,p-Xylene	0.144	0.00400	"	0.200		71.8	70-130	10.9	20	
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		113	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - 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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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 B2L0502 - DTPA Sorbitol Preparation

Blank (B2L0502-BLK1)

Prepared: 12/05/2022 Analyzed: 12/07/2022

Boron ND 0.100 mg/L

Duplicate (B2L0502-DUP1)

Source: Y212050-01

Prepared: 12/05/2022 Analyzed: 12/07/2022

Boron 0.463 0.0997 mg/L 0.455 1.77 50

Batch B2L0503 - Saturated Paste Metals

Blank (B2L0503-BLK1)

Prepared: 12/05/2022 Analyzed: 12/06/2022

Calcium PPM ND 10.0 mg/L

SAR 0.00 SAR

Magnesium PPM ND 10.0 mg/L

Sodium PPM ND 10.0 "

Duplicate (B2L0503-DUP1)

Source: Y212044-01

Prepared: 12/05/2022 Analyzed: 12/06/2022

Calcium PPM 79.1 10.0 mg/L 59.6 28.1 50

SAR 0.00 SAR 3.81 200 200

Magnesium PPM ND 10.0 mg/L ND 50

Sodium PPM 95.5 10.0 " 107 10.9 50

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Saturated Paste - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0506 - Saturated Paste pH/EC										
Blank (B2L0506-BLK1)					Prepared: 12/05/2022 Analyzed: 12/06/2022					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B2L0506-DUP1)					Source: Y212044-01 Prepared: 12/05/2022 Analyzed: 12/06/2022					
Specific Conductance (EC)	1.08	0.00500	mmhos/cm		0.990			8.91	25	
pH	11.2		pH Units		11.0			1.99	25	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



December 15, 2022

Tasman Geosciences

Andy Sagen

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - I & J 7-6 & Bulthaup 21-6 Project Number - [none]

Attached are your analytical results for KMG - I & J 7-6 & Bulthaup 21-6 received by Origins Laboratory, Inc. December 07, 2022. This project is associated with Origins project number Y212156-01.

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
21-6-FL-B02@4'	Y212156-01	Soil	December 7, 2022 14:30	12/07/2022 16:45
7-6-FL-B02@4'	Y212156-02	Soil	December 7, 2022 14:35	12/07/2022 16:45

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences

6855 West 119th Avenue

Broomfield CO 80020

Andy Sagen

Project Number: [none]

Project: KMG - I & J 7-6 & Bulthaup 21-6

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4212156

Client: Tasman

Client Project ID: I & J 7-6 and Bulthaup 21-6

Checklist Completed by: EH/DE

Date/time completed: 12/17/22

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: NA

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1, 3.3 °C / _____ °C / _____ °C (Describe) _____ °C

Thermometer ID: 1004

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.

Reviewed by (Project Manager) [Signature] Date/Time Reviewed 12/17/2022

Origins Laboratory, Inc.

J. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

21-6-FL-B02@4'
12/7/2022 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212156-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.481	0.0983	mg/L	1	B2L0807	KAP	12/08/2022	12/09/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0733	ADM	12/07/2022	12/07/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	80.1 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0732	JSM	12/07/2022	12/07/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Benzene	ND	0.00200	"	"	"	JSM	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Naphthalene	ND	0.00380	"	"	"	JSM	"	"	U
Toluene	ND	0.00200	"	"	"	JSM	"	"	U
Xylenes, total	ND	0.00200	"	"	"	JSM	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	100 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	97.9 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

21-6-FL-B02@4'
12/7/2022 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212156-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	2.52	0.499	meq/L	10	[CALC]	KAP	12/08/2022	12/09/2022
Magnesium	2.37	0.823	"	"	"	KAP	"	"
Sodium	2.56	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	7.81		pH Units	1	B2L0815	HJD	12/08/2022	12/09/2022
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SAR by 20B Saturated Paste

SAR	1.64		SAR	1	B2L0810	KAP	12/08/2022	12/09/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.742	0.00500	mmhos/cm	1	B2L0815	HJD	12/08/2022	12/09/2022
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7-6-FL-B02@4'
12/7/2022 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212156-02 (Soil)

Boron (DTPA Sorbitol)

Boron	0.695	0.0980	mg/L	1	B2L0807	KAP	12/08/2022	12/09/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L0733	ADM	12/07/2022	12/07/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	81.2 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L0732	JSM	12/07/2022	12/07/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Benzene	ND	0.00200	"	"	"	JSM	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Naphthalene	ND	0.00380	"	"	"	JSM	"	"	U
Toluene	ND	0.00200	"	"	"	JSM	"	"	U
Xylenes, total	ND	0.00200	"	"	"	JSM	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	110 %	70-130			"	"	"
Surrogate: Toluene-d8	99.4 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	98.7 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7-6-FL-B02@4'
12/7/2022 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212156-02 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	2.70	0.499	meq/L	10	[CALC]	KAP	12/08/2022	12/09/2022
Magnesium	2.76	0.823	"	"	"	KAP	"	"
Sodium	2.46	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.07		pH Units	1	B2L0815	HJD	12/08/2022	12/09/2022
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SAR by 20B Saturated Paste

SAR	1.49		SAR	1	B2L0810	KAP	12/08/2022	12/09/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.876	0.00500	mmhos/cm	1	B2L0815	HJD	12/08/2022	12/09/2022
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0732 - EPA 5030 (soil)										
Blank (B2L0732-BLK1)					Prepared: 12/07/2022 Analyzed: 12/07/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - 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 B2L0732 - EPA 5030 (soil)

LCS (B2L0732-BS1)

Prepared: 12/07/2022 Analyzed: 12/07/2022

1,2,4-Trimethylbenzene	0.0910	0.00200	mg/kg	0.100		91.0	70-130			
1,3,5-Trimethylbenzene	0.0897	0.00200	"	0.100		89.7	70-130			
Benzene	0.0864	0.00200	"	0.100		86.4	70-130			
Ethylbenzene	0.0929	0.00200	"	0.100		92.9	70-130			
Naphthalene	0.0825	0.00380	"	0.100		82.5	70-130			
Toluene	0.0934	0.00200	"	0.100		93.4	70-130			
o-Xylene	0.0932	0.00200	"	0.100		93.2	70-130			
m,p-Xylene	0.183	0.00400	"	0.200		91.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.2	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		106	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - 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 B2L0732 - EPA 5030 (soil)

Matrix Spike (B2L0732-MS1)		Source: Y212144-01			Prepared: 12/07/2022 Analyzed: 12/07/2022					
1,2,4-Trimethylbenzene	0.105	0.00200	mg/kg	0.100	ND	105	70-130			
1,3,5-Trimethylbenzene	0.105	0.00200	"	0.100	ND	105	70-130			
Benzene	0.102	0.00200	"	0.100	ND	102	70-130			
Ethylbenzene	0.106	0.00200	"	0.100	ND	106	70-130			
Naphthalene	0.101	0.00380	"	0.100	ND	101	70-130			
Toluene	0.0999	0.00200	"	0.100	ND	99.9	70-130			
o-Xylene	0.105	0.00200	"	0.100	ND	105	70-130			
m,p-Xylene	0.207	0.00400	"	0.200	ND	103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		97.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		106	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0732 - EPA 5030 (soil)										
Matrix Spike Dup (B2L0732-MSD1)	Source: Y212144-01				Prepared: 12/07/2022 Analyzed: 12/07/2022					
1,2,4-Trimethylbenzene	0.104	0.00200	mg/kg	0.100	ND	104	70-130	1.19	20	
1,3,5-Trimethylbenzene	0.104	0.00200	"	0.100	ND	104	70-130	1.11	20	
Benzene	0.102	0.00200	"	0.100	ND	102	70-130	0.491	20	
Ethylbenzene	0.107	0.00200	"	0.100	ND	107	70-130	0.301	20	
Naphthalene	0.0981	0.00380	"	0.100	ND	98.1	70-130	2.77	20	
Toluene	0.101	0.00200	"	0.100	ND	101	70-130	0.897	20	
o-Xylene	0.105	0.00200	"	0.100	ND	105	70-130	0.228	20	
m,p-Xylene	0.207	0.00400	"	0.200	ND	104	70-130	0.203	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		102	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0733 - EPA 3580										
Blank (B2L0733-BLK1)					Prepared: 12/07/2022 Analyzed: 12/07/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	21		"	24.9		83.5	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0733 - EPA 3580

LCS (B2L0733-BS1)

Prepared: 12/07/2022 Analyzed: 12/07/2022

Diesel (C10-C28)	1190	50.0	mg/kg	1000		119	70-130			
Residual Range Organics (C28-C40)	885	200	"	1000		88.5	70-130			
Surrogate: o-Terphenyl	40		"	49.8		80.8	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0733 - EPA 3580

Matrix Spike (B2L0733-MS1)		Source: Y212144-01			Prepared: 12/07/2022 Analyzed: 12/07/2022					
Diesel (C10-C28)	1170	50.0	mg/kg	1000	ND	117	70-130			
Residual Range Organics (C28-C40)	921	200	"	1000	ND	92.1	70-130			
Surrogate: o-Terphenyl	45		"	49.8		90.8	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B2L0733 - EPA 3580

Matrix Spike Dup (B2L0733-MSD1)		Source: Y212144-01			Prepared: 12/07/2022 Analyzed: 12/07/2022					
Diesel (C10-C28)	1210	50.0	mg/kg	1000	ND	121	70-130	4.06	35	
Residual Range Organics (C28-C40)	964	200	"	1000	ND	96.4	70-130	4.57	35	
Surrogate: o-Terphenyl	39		"	49.8		77.9	50-150			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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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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 B2L0807 - DTPA Sorbitol Preparation

Blank (B2L0807-BLK1)

Prepared: 12/08/2022 Analyzed: 12/09/2022

Boron ND 0.100 mg/L

Duplicate (B2L0807-DUP1)

Source: Y212127-01

Prepared: 12/08/2022 Analyzed: 12/09/2022

Boron 0.0884 0.0998 mg/L 0.0881 0.380 50

Batch B2L0810 - Saturated Paste Metals

Blank (B2L0810-BLK1)

Prepared: 12/08/2022 Analyzed: 12/09/2022

SAR 0.00 SAR

Calcium PPM ND 10.0 mg/L

Magnesium PPM ND 10.0 "

Sodium PPM ND 10.0 "

Duplicate (B2L0810-DUP1)

Source: Y212120-01

Prepared: 12/08/2022 Analyzed: 12/09/2022

SAR 0.00 SAR 0.817 200 200

Calcium PPM 20.3 10.0 mg/L 20.3 0.399 50

Magnesium PPM 3.75 10.0 " 3.63 3.23 50

Sodium PPM 3.72 10.0 " 15.2 121 50 QR-DUP

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L0815 - Saturated Paste pH/EC										
Blank (B2L0815-BLK1)					Prepared: 12/08/2022 Analyzed: 12/09/2022					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B2L0815-DUP1)					Source: Y212120-01 Prepared: 12/08/2022 Analyzed: 12/09/2022					
Specific Conductance (EC)	0.154	0.00500	mmhos/cm		0.208			29.4	25	QR-DUP
pH	7.22		pH Units		7.20			0.277	25	

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Notes and Definitions

U Sample is Non-Detect.

QR-DUP RPD exceeds QC acceptance criteria, this indicates source sample is not homogenous.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



January 04, 2023

Tasman Geosciences

Andy Sagen

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - Bulthaup 1, 27-6

Project Number - -

Attached are your analytical results for KMG - Bulthaup 1, 27-6 received by Origins Laboratory, Inc. December 20, 2022. This project is associated with Origins project number Y212467-01.

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

Tasman Geosciences

6855 West 119th Avenue

Broomfield CO 80020

Andy Sagen

Project Number: -

Project: KMG - Bulthaup 1, 27-6

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
1,27,17,7,21-6-FL-B13@4'	Y212467-01	Soil	December 20, 2022 12:48	12/20/2022 14:50

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

[illegible]

Origins Laboratory, Inc.

Byron

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4212407

Client: Tasman

Client Project ID: Bulthaup 127-6

Checklist Completed by: TSH/CHS

Shipped Via: HD

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 12/20/22

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 2.8 °C 1 / 1 °C 1 / 1 °C (Describe)

Thermometer ID: T004

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	/			
Is there ice present (document if blue ice is used)	/			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		/		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		/		
Were all samples received intact ⁽¹⁾ ?	/			
Was adequate sample volume provided ⁽¹⁾ ?	/			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		/		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	/			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	/			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	/			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	/			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			/	
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)			/	
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.

Gandy Taylor
Reviewed by (Project Manager)

12/20/22
Date/Time Reviewed

Origins Laboratory, Inc.

J. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

1.27.17.7.21-6-FL-B13@4'

12/20/2022 12:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y212467-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.331	0.0991	mg/L	1	B2L2106	CIH	12/21/2022	12/23/2022	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B2L2018	ADM	12/20/2022	12/21/2022	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	77.0 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B2L2020	JSM	12/20/2022	12/20/2022	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Benzene	ND	0.00200	"	"	"	JSM	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Naphthalene	ND	0.00380	"	"	"	JSM	"	"	U
Toluene	ND	0.00200	"	"	"	JSM	"	"	U
Xylenes, total	ND	0.00200	"	"	"	JSM	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	122 %	70-130			"	"	"
Surrogate: Toluene-d8	103 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	98.5 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences

6855 West 119th Avenue

Broomfield CO 80020

Andy Sagen

Project Number: -

Project: KMG - Bulthaup 1, 27-6

1.27.17.7.21-6-FL-B13@4'

12/20/2022 12:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.

Y212467-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	20.0	0.499	meq/L	10	[CALC]	CIH	12/21/2022	12/27/2022
Magnesium	12.2	0.823	"	"	"	CIH	"	"
Sodium	12.0	0.435	"	"	"	CIH	"	"

pH in Soil by 9045D

pH	7.99		pH Units	1	B2L2111	ACC	12/21/2022	12/22/2022
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SAR by 20B Saturated Paste

SAR	2.99		SAR	1	B2L2103	CIH	12/21/2022	12/27/2022
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	3.66	0.00500	mmhos/cm	1	B2L2111	ACC	12/21/2022	12/22/2022
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L2018 - EPA 3580										
Blank (B2L2018-BLK1)					Prepared: 12/20/2022 Analyzed: 12/21/2022					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	25		"	24.9		101	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B2L2018 - EPA 3580

LCS (B2L2018-BS1)

Prepared: 12/20/2022 Analyzed: 12/21/2022

Diesel (C10-C28)	1040	50.0	mg/kg	1000		104	70-130			
Residual Range Organics (C28-C40)	884	200	"	1000		88.4	70-130			
Surrogate: o-Terphenyl	47		"	49.8		94.7	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

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

Batch B2L2018 - EPA 3580

Matrix Spike (B2L2018-MS1)		Source: Y212458-01			Prepared: 12/20/2022 Analyzed: 12/21/2022					
Diesel (C10-C28)	1030	50.0	mg/kg	1000	ND	103	70-130			
Residual Range Organics (C28-C40)	913	200	"	1000	ND	91.3	70-130			
Surrogate: o-Terphenyl	47		"	49.8		93.5	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

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

Batch B2L2018 - EPA 3580

Matrix Spike Dup (B2L2018-MSD1)		Source: Y212458-01			Prepared: 12/20/2022 Analyzed: 12/21/2022					
Diesel (C10-C28)	1040	50.0	mg/kg	1000	ND	104	70-130	0.659	35	
Residual Range Organics (C28-C40)	918	200	"	1000	ND	91.8	70-130	0.599	35	
Surrogate: o-Terphenyl	39		"	49.8		77.6	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L2020 - EPA 5030 (soil)										
Blank (B2L2020-BLK1)					Prepared: 12/20/2022 Analyzed: 12/20/2022					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125	117		70-130			
Surrogate: Toluene-d8	0.13		"	0.125	106		70-130			
Surrogate: 4-Bromofluorobenzene	0.11		"	0.125	91.6		70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L2020 - EPA 5030 (soil)										
LCS (B2L2020-BS1)					Prepared: 12/20/2022 Analyzed: 12/20/2022					
1,2,4-Trimethylbenzene	0.0807	0.00200	mg/kg	0.100		80.7	70-130			
1,3,5-Trimethylbenzene	0.0815	0.00200	"	0.100		81.5	70-130			
Benzene	0.0883	0.00200	"	0.100		88.3	70-130			
Ethylbenzene	0.0925	0.00200	"	0.100		92.5	70-130			
Naphthalene	0.0915	0.00380	"	0.100		91.5	70-130			
Toluene	0.0860	0.00200	"	0.100		86.0	70-130			
o-Xylene	0.0879	0.00200	"	0.100		87.9	70-130			
m,p-Xylene	0.179	0.00400	"	0.200		89.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		112	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		105	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L2020 - EPA 5030 (soil)										
Matrix Spike (B2L2020-MS1)		Source: Y212458-01			Prepared: 12/20/2022 Analyzed: 12/20/2022					
1,2,4-Trimethylbenzene	0.0933	0.00200	mg/kg	0.100	ND	93.3	70-130			
1,3,5-Trimethylbenzene	0.0931	0.00200	"	0.100	ND	93.1	70-130			
Benzene	0.113	0.00200	"	0.100	ND	113	70-130			
Ethylbenzene	0.113	0.00200	"	0.100	ND	113	70-130			
Naphthalene	0.103	0.00380	"	0.100	ND	103	70-130			
Toluene	0.105	0.00200	"	0.100	ND	105	70-130			
o-Xylene	0.105	0.00200	"	0.100	ND	105	70-130			
m,p-Xylene	0.216	0.00400	"	0.200	ND	108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		115	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L2020 - EPA 5030 (soil)										
Matrix Spike Dup (B2L2020-MSD1)		Source: Y212458-01			Prepared: 12/20/2022 Analyzed: 12/20/2022					
1,2,4-Trimethylbenzene	0.0528	0.00200	mg/kg	0.100	ND	52.8	70-130	55.5	20	QM-07
1,3,5-Trimethylbenzene	0.0521	0.00200	"	0.100	ND	52.1	70-130	56.5	20	QM-07
Benzene	0.0843	0.00200	"	0.100	ND	84.3	70-130	28.7	20	QR-02
Ethylbenzene	0.0718	0.00200	"	0.100	ND	71.8	70-130	44.2	20	QR-02
Naphthalene	0.0551	0.00380	"	0.100	ND	55.1	70-130	60.2	20	QM-07
Toluene	0.0745	0.00200	"	0.100	ND	74.5	70-130	33.6	20	QR-02
o-Xylene	0.0675	0.00200	"	0.100	ND	67.5	70-130	43.7	20	QM-07
m,p-Xylene	0.138	0.00400	"	0.200	ND	69.0	70-130	44.1	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		119	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Volatile Organic Compounds by GC/MS SW846 8260D - 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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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 B2L2103 - Saturated Paste Metals

Blank (B2L2103-BLK1)

Prepared: 12/21/2022 Analyzed: 12/27/2022

Calcium PPM	ND	10.0	mg/L
SAR	0.00		SAR
Magnesium PPM	ND	10.0	mg/L
Sodium PPM	ND	10.0	"

Duplicate (B2L2103-DUP1)

Source: Y212458-01

Prepared: 12/21/2022 Analyzed: 12/27/2022

SAR	0.00		SAR	0.900		200	200
Calcium PPM	78.3	10.0	mg/L	77.8		0.681	50
Magnesium PPM	8.99	10.0	"	9.04		0.499	50
Sodium PPM	31.7	10.0	"	31.5		0.832	50

Batch B2L2106 - DTPA Sorbitol Preparation

Blank (B2L2106-BLK1)

Prepared: 12/21/2022 Analyzed: 12/23/2022

Boron	ND	0.100	mg/L
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Duplicate (B2L2106-DUP1)

Source: Y212458-01

Prepared: 12/21/2022 Analyzed: 12/23/2022

Boron	0.398	0.0987	mg/L	0.362		9.46	50
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B2L2111 - Saturated Paste pH/EC										
Blank (B2L2111-BLK1)					Prepared: 12/21/2022 Analyzed: 12/22/2022					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B2L2111-DUP1)					Source: Y212458-01 Prepared: 12/21/2022 Analyzed: 12/22/2022					
Specific Conductance (EC)	0.760	0.00500	mmhos/cm		0.764			0.485	25	
pH	9.31		pH Units		8.34			11.0	25	

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: -
Project: KMG - Bulthaup 1, 27-6

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



January 11, 2023

Tasman Geosciences

Andy Sagen

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - 1 & J7-6 & Bulthaup 21-6

Project Number - [none]

Attached are your analytical results for KMG - 1 & J7-6 & Bulthaup 21-6 received by Origins Laboratory, Inc. January 05, 2023. This project is associated with Origins project number Y301066-01.

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
7,21-6-FL-B07@4'	Y301066-01	Soil	January 5, 2023 14:38	01/05/2023 17:41
7,21-6-FL-GW01	Y301066-02	Water	January 5, 2023 14:40	01/05/2023 17:41

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Page 3 of 22

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4301066

Client: Tasman

Client Project ID: 1475 Bulthaup 21-6

Checklist Completed by: DE

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 1/5/23

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☒ Water ☐ Other: _____

Cooler Number/Temperature: 1, 4.3-c 1 °C 1 °C (Describe) 1 °C

Thermometer ID: T804

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"/>	<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"/>		<input checked="" type="checkbox"/>	N/C
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.

Reviewed by (Project Manager): DE

Date/Time Reviewed: 1/5/23

Origins Laboratory, Inc.

J. Bynon

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

7.21-6-FL-B07@4'
1/5/2023 2:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301066-01 (Soil)

Boron (DTPA Sorbitol)

Boron	3.86	0.0998	mg/L	1	B3A0609	KAP	01/06/2023	01/09/2023	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A0530	ADM	01/05/2023	01/06/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	ADM	"	"	U

Surrogate: o-Terphenyl	74.2 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A0531	JSM	01/05/2023	01/06/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Benzene	ND	0.00200	"	"	"	JSM	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	JSM	"	"	U
Naphthalene	ND	0.00380	"	"	"	JSM	"	"	U
Toluene	ND	0.00200	"	"	"	JSM	"	"	U
Xylenes, total	ND	0.00200	"	"	"	JSM	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	101 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	99.3 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

7.21-6-FL-B07@4'
1/5/2023 2:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301066-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	19.4	0.499	meq/L	10	[CALC]	KAP	01/06/2023	01/09/2023
Magnesium	46.2	0.823	"	"	"	KAP	"	"
Sodium	40.7	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	7.90		pH Units	1	B3A0612	HJD	01/06/2023	01/07/2023
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SAR by 20B Saturated Paste

SAR	7.11		SAR	1	B3A0606	KAP	01/06/2023	01/09/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	7.64	0.00500	mmhos/cm	1	B3A0612	HJD	01/06/2023	01/07/2023
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

7.21-6-FL-GW01

1/5/2023 2:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301066-02 (Water)

BTEX+N+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	2.00	ug/L	1	B3A0517	JSM	01/05/2023	01/06/2023	U
1,3,5-Trimethylbenzene	ND	2.00	"	"	"	JSM	"	"	U
Benzene	ND	1.00	"	"	"	JSM	"	"	U
Ethylbenzene	ND	1.00	"	"	"	JSM	"	"	U
Naphthalene	ND	2.00	"	"	"	JSM	"	"	U
Toluene	ND	1.00	"	"	"	JSM	"	"	U
Xylenes, total	ND	1.00	"	"	"	JSM	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	101 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	98.1 %	70-130	"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0517 - EPA 5030B (Water)										
Blank (B3A0517-BLK1)					Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	ND	2.00	ug/L							U
1,3,5-Trimethylbenzene	ND	2.00	"							U
Benzene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Naphthalene	ND	2.00	"							U
Toluene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.8	70-130			
Surrogate: Toluene-d8	55		"	62.5		88.6	70-130			
Surrogate: 4-Bromofluorobenzene	53		"	62.5		84.1	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0517 - EPA 5030B (Water)										
LCS (B3A0517-BS1)					Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	51.2	2.00	ug/L	50.0		102	70-130			
1,3,5-Trimethylbenzene	51.1	2.00	"	50.0		102	70-130			
Benzene	51.4	1.00	"	50.0		103	70-130			
Ethylbenzene	49.4	1.00	"	50.0		98.8	70-130			
m,p-Xylene	94.0	2.00	"	100		94.0	70-130			
Naphthalene	56.6	2.00	"	50.0		113	70-130			
o-Xylene	46.1	1.00	"	50.0		92.1	70-130			
Toluene	51.0	1.00	"	50.0		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.5	70-130			
Surrogate: Toluene-d8	57		"	62.5		90.6	70-130			
Surrogate: 4-Bromofluorobenzene	53		"	62.5		84.2	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0517 - EPA 5030B (Water)										
Matrix Spike (B3A0517-MS1)		Source: Y212652-01			Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	54.2	2.00	ug/L	50.0	ND	108	70-130			
1,3,5-Trimethylbenzene	53.4	2.00	"	50.0	ND	107	70-130			
Benzene	53.0	1.00	"	50.0	ND	106	70-130			
Ethylbenzene	50.3	1.00	"	50.0	ND	101	70-130			
m,p-Xylene	97.8	2.00	"	100	0.840	97.0	70-130			
Naphthalene	58.4	2.00	"	50.0	0.220	116	70-130			
o-Xylene	49.4	1.00	"	50.0	ND	98.8	70-130			
Toluene	52.3	1.00	"	50.0	ND	105	70-130			
Surrogate: 1,2-Dichloroethane-d4	57		"	62.5		90.8	70-130			
Surrogate: Toluene-d8	57		"	62.5		91.0	70-130			
Surrogate: 4-Bromofluorobenzene	53		"	62.5		85.3	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0517 - EPA 5030B (Water)										
Matrix Spike Dup (B3A0517-MSD1)	Source: Y212652-01				Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	53.1	2.00	ug/L	50.0	ND	106	70-130	1.92	20	
1,3,5-Trimethylbenzene	52.6	2.00	"	50.0	ND	105	70-130	1.57	20	
Benzene	52.9	1.00	"	50.0	ND	106	70-130	0.264	20	
Ethylbenzene	49.6	1.00	"	50.0	ND	99.3	70-130	1.36	20	
m,p-Xylene	95.6	2.00	"	100	0.840	94.8	70-130	2.29	20	
Naphthalene	58.9	2.00	"	50.0	0.220	117	70-130	0.784	20	
o-Xylene	49.0	1.00	"	50.0	ND	98.0	70-130	0.732	20	
Toluene	51.5	1.00	"	50.0	ND	103	70-130	1.56	20	
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.2	70-130			
Surrogate: Toluene-d8	57		"	62.5		90.6	70-130			
Surrogate: 4-Bromofluorobenzene	53		"	62.5		85.0	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0530 - EPA 3580										
Blank (B3A0530-BLK1)					Prepared: 01/05/2023 Analyzed: 01/06/2023					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	21		"	24.9		85.1	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B3A0530 - EPA 3580

LCS (B3A0530-BS1)

Prepared: 01/05/2023 Analyzed: 01/06/2023

Diesel (C10-C28)	904	50.0	mg/kg	1000		90.4	70-130			
Residual Range Organics (C28-C40)	959	200	"	1000		95.9	70-130			
Surrogate: o-Terphenyl	52		"	49.8		104	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B3A0530 - EPA 3580

Matrix Spike (B3A0530-MS1)		Source: Y301065-01			Prepared: 01/05/2023 Analyzed: 01/06/2023					
Diesel (C10-C28)	814	50.0	mg/kg	1000	ND	81.4	70-130			
Residual Range Organics (C28-C40)	838	200	"	1000	ND	83.8	70-130			
Surrogate: o-Terphenyl	35		"	49.8		70.6	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B3A0530 - EPA 3580

Matrix Spike Dup (B3A0530-MSD1)		Source: Y301065-01			Prepared: 01/05/2023 Analyzed: 01/06/2023					
Diesel (C10-C28)	934	50.0	mg/kg	1000	ND	93.4	70-130	13.8	35	
Residual Range Organics (C28-C40)	987	200	"	1000	ND	98.7	70-130	16.2	35	
Surrogate: o-Terphenyl	49		"	49.8		99.1	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0531 - EPA 5030 (soil)										
Blank (B3A0531-BLK1)					Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		103	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.6	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0531 - EPA 5030 (soil)										
LCS (B3A0531-BS1)					Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	0.0891	0.00200	mg/kg	0.100		89.1	70-130			
1,3,5-Trimethylbenzene	0.0931	0.00200	"	0.100		93.1	70-130			
Benzene	0.0925	0.00200	"	0.100		92.5	70-130			
Ethylbenzene	0.0969	0.00200	"	0.100		96.9	70-130			
Naphthalene	0.0901	0.00380	"	0.100		90.1	70-130			
Toluene	0.0919	0.00200	"	0.100		91.9	70-130			
o-Xylene	0.0904	0.00200	"	0.100		90.4	70-130			
m,p-Xylene	0.189	0.00400	"	0.200		94.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0531 - EPA 5030 (soil)										
Matrix Spike (B3A0531-MS1)		Source: Y301060-01			Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	0.0940	0.00200	mg/kg	0.100	ND	94.0	70-130			
1,3,5-Trimethylbenzene	0.0948	0.00200	"	0.100	ND	94.8	70-130			
Benzene	0.0909	0.00200	"	0.100	ND	90.9	70-130			
Ethylbenzene	0.0973	0.00200	"	0.100	ND	97.3	70-130			
Naphthalene	0.0826	0.00380	"	0.100	ND	82.6	70-130			
Toluene	0.0888	0.00200	"	0.100	ND	88.8	70-130			
o-Xylene	0.0954	0.00200	"	0.100	ND	95.4	70-130			
m,p-Xylene	0.194	0.00400	"	0.200	ND	97.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		100	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0531 - EPA 5030 (soil)										
Matrix Spike Dup (B3A0531-MSD1)	Source: Y301060-01				Prepared: 01/05/2023 Analyzed: 01/05/2023					
1,2,4-Trimethylbenzene	0.0939	0.00200	mg/kg	0.100	ND	93.9	70-130	0.0852	20	
1,3,5-Trimethylbenzene	0.0961	0.00200	"	0.100	ND	96.1	70-130	1.45	20	
Benzene	0.0982	0.00200	"	0.100	ND	98.2	70-130	7.79	20	
Ethylbenzene	0.101	0.00200	"	0.100	ND	101	70-130	3.89	20	
Naphthalene	0.0842	0.00380	"	0.100	ND	84.2	70-130	1.97	20	
Toluene	0.0987	0.00200	"	0.100	ND	98.7	70-130	10.6	20	
o-Xylene	0.0992	0.00200	"	0.100	ND	99.2	70-130	3.89	20	
m,p-Xylene	0.201	0.00400	"	0.200	ND	101	70-130	3.77	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		105	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.7	70-130			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - 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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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 B3A0606 - Saturated Paste Metals

Blank (B3A0606-BLK1)

Prepared: 01/06/2023 Analyzed: 01/09/2023

Calcium PPM	ND	10.0	mg/L
SAR	0.00		SAR
Magnesium PPM	ND	10.0	mg/L
Sodium PPM	ND	10.0	"

Duplicate (B3A0606-DUP1)

Source: Y301027-09

Prepared: 01/06/2023 Analyzed: 01/09/2023

SAR	0.00		SAR	1.45	200	200
Calcium PPM	34.4	10.0	mg/L	35.9	4.11	50
Magnesium PPM	17.6	10.0	"	18.8	6.59	50
Sodium PPM	43.3	10.0	"	43.0	0.617	50

Batch B3A0609 - DTPA Sorbitol Preparation

Blank (B3A0609-BLK1)

Prepared: 01/06/2023 Analyzed: 01/09/2023

Boron	ND	0.100	mg/L
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Duplicate (B3A0609-DUP1)

Source: Y301061-07

Prepared: 01/06/2023 Analyzed: 01/09/2023

Boron	0.256	0.0999	mg/L	0.287	11.3	50
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A0612 - Saturated Paste pH/EC										
Blank (B3A0612-BLK1)					Prepared: 01/06/2023 Analyzed: 01/07/2023					
Specific Conductance (EC)	ND	0.00500	mmhos/cm							
Duplicate (B3A0612-DUP1)					Source: Y301027-09 Prepared: 01/06/2023 Analyzed: 01/07/2023					
Specific Conductance (EC)	0.506	0.00500	mmhos/cm		0.546			7.57	25	
pH	8.37		pH Units		8.39			0.239	25	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - 1 & J7-6 & Bulthaup 21-6

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



January 31, 2023

Tasman Geosciences

Andy Sagen

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - I & J 7-6 & Bulthaup 21-6 Project Number - [none]

Attached are your analytical results for KMG - I & J 7-6 & Bulthaup 21-6 received by Origins Laboratory, Inc. January 26, 2023. This project is associated with Origins project number Y301450-01.

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

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
7,21-6-FL-B08@8'	Y301450-01	Soil	January 26, 2023 15:30	01/26/2023 16:38
7,21-6-FL-N01@7'	Y301450-02	Soil	January 26, 2023 15:32	01/26/2023 16:38
7,21-6-FL-E01@7'	Y301450-03	Soil	January 26, 2023 15:34	01/26/2023 16:38
7,21-6-FL-S01@7'	Y301450-04	Soil	January 26, 2023 15:36	01/26/2023 16:38
7,21-6-FL-W01@7'	Y301450-05	Soil	January 26, 2023 15:38	01/26/2023 16:38

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4301449

Client: Tasman

Client Project ID: I + J 7-6 Bulthaup 2

Checklist Completed by: EHS/AN

Shipped Via: HD

Date/time completed: 1/26/12

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: N/A

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____

Cooler Number/Temperature: 1 15.8 °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"/>	<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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<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 type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<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.

Andy Sagen
Reviewed by (Project Manager)

1/26/12
Date/Time Reviewed

Origins Laboratory, Inc.

Jordan A. Bynon

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-B08@8'
1/26/2023 3:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.108	0.101	mg/L	1	B3A2707	KAP	01/27/2023	01/30/2023	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A2625	B	01/26/2023	01/27/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	82.3 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A2618	ZZZ	01/26/2023	01/27/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Naphthalene	ND	0.00380	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130			"	"	"
Surrogate: Toluene-d8	99.1 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-B08@8'
1/26/2023 3:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-01 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	2.14	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	1.12	0.823	"	"	"	KAP	"	"
Sodium	0.924	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	7.99		pH Units	1	B3A2716	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	0.724		SAR	1	B3A2703	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.416	0.00500	mmhos/cm	1	B3A2716	HJD	01/27/2023	01/28/2023
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-N01@7'
1/26/2023 3:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-02 (Soil)

Boron (DTPA Sorbitol)

Boron	0.218	0.0999	mg/L	1	B3A2707	KAP	01/27/2023	01/30/2023	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A2625	B	01/26/2023	01/27/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	84.8 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A2618	ZZZ	01/26/2023	01/27/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Naphthalene	ND	0.00380	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	98.8 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-N01@7'
1/26/2023 3:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-02 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	1.37	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	2.90	0.823	"	"	"	KAP	"	"
Sodium	1.92	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.12		pH Units	1	B3A2716	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	1.31		SAR	1	B3A2703	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.635	0.00500	mmhos/cm	1	B3A2716	HJD	01/27/2023	01/28/2023
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-E01@7'
1/26/2023 3:34:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-03 (Soil)

Boron (DTPA Sorbitol)

Boron	0.157	0.0996	mg/L	1	B3A2707	KAP	01/27/2023	01/30/2023	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A2625	B	01/26/2023	01/27/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	82.7 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A2618	ZZZ	01/26/2023	01/27/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Naphthalene	ND	0.00380	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	106 %	70-130			"	"	"
Surrogate: Toluene-d8	99.0 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	103 %	70-130			"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-E01@7'
1/26/2023 3:34:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-03 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	0.946	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	2.47	0.823	"	"	"	KAP	"	"
Sodium	1.60	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.10		pH Units	1	B3A2716	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	1.23		SAR	1	B3A2703	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.508	0.00500	mmhos/cm	1	B3A2716	HJD	01/27/2023	01/28/2023
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Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-S01@7'
1/26/2023 3:36:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-04 (Soil)

Boron (DTPA Sorbitol)

Boron	0.491	0.0995	mg/L	1	B3A2707	KAP	01/27/2023	01/30/2023	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A2625	B	01/26/2023	01/27/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	82.7 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A2618	ZZZ	01/26/2023	01/27/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Naphthalene	ND	0.00380	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130			"	"	"
Surrogate: Toluene-d8	99.7 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-S01@7'
1/26/2023 3:36:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y301450-04 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	0.975	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	3.42	0.823	"	"	"	KAP	"	"
Sodium	8.54	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	8.33		pH Units	1	B3A2716	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	5.76		SAR	1	B3A2703	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.32	0.00500	mmhos/cm	1	B3A2716	HJD	01/27/2023	01/28/2023
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-W01@7'
1/26/2023 3:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-05 (Soil)

Boron (DTPA Sorbitol)

Boron	0.262	0.0999	mg/L	1	B3A2708	KAP	01/27/2023	01/30/2023	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B3A2625	B	01/26/2023	01/27/2023	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	B	"	"	U

Surrogate: o-Terphenyl	83.7 %	50-150			"	"	"	
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GBTEX+TMBs by 8260D

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B3A2618	ZZZ	01/26/2023	01/27/2023	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Benzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	ZZZ	"	"	U
Naphthalene	ND	0.00380	"	"	"	ZZZ	"	"	U
Toluene	ND	0.00200	"	"	"	ZZZ	"	"	U
Xylenes, total	ND	0.00200	"	"	"	ZZZ	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	ZZZ	"	"	U

Surrogate: 1,2-Dichloroethane-d4	114 %	70-130			"	"	"
Surrogate: Toluene-d8	96.9 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	104 %	70-130			"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

7.21-6-FL-W01@7'
1/26/2023 3:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y301450-05 (Soil)

Metals by Saturated Paste by EPA 6010

Calcium	6.88	0.499	meq/L	10	[CALC]	KAP	01/27/2023	01/30/2023
Magnesium	3.32	0.823	"	"	"	KAP	"	"
Sodium	4.47	0.435	"	"	"	KAP	"	"

pH in Soil by 9045D

pH	7.87		pH Units	1	B3A2717	HJD	01/27/2023	01/28/2023
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SAR by 20B Saturated Paste

SAR	1.98		SAR	1	B3A2704	KAP	01/27/2023	01/30/2023
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.51	0.00500	mmhos/cm	1	B3A2717	HJD	01/27/2023	01/28/2023
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A2618 - EPA 5030 (soil)										
Blank (B3A2618-BLK1)					Prepared: 01/26/2023 Analyzed: 01/26/2023					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Naphthalene	ND	0.00380	"							U
Toluene	ND	0.00200	"							U
Xylenes, total	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		100	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A2618 - EPA 5030 (soil)										
LCS (B3A2618-BS1)					Prepared: 01/26/2023 Analyzed: 01/26/2023					
1,2,4-Trimethylbenzene	0.112	0.00200	mg/kg	0.100		112	70-130			
1,3,5-Trimethylbenzene	0.112	0.00200	"	0.100		112	70-130			
Benzene	0.102	0.00200	"	0.100		102	70-130			
Ethylbenzene	0.111	0.00200	"	0.100		111	70-130			
Naphthalene	0.116	0.00380	"	0.100		116	70-130			
Toluene	0.103	0.00200	"	0.100		103	70-130			
o-Xylene	0.110	0.00200	"	0.100		110	70-130			
m,p-Xylene	0.220	0.00400	"	0.200		110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A2618 - EPA 5030 (soil)										
LCS Dup (B3A2618-BSD1)					Prepared: 01/26/2023 Analyzed: 01/26/2023					
1,2,4-Trimethylbenzene	0.110	0.00200	mg/kg	0.100		110	70-130	1.42	20	
1,3,5-Trimethylbenzene	0.112	0.00200	"	0.100		112	70-130	0.160	20	
Benzene	0.100	0.00200	"	0.100		100	70-130	1.41	20	
Ethylbenzene	0.109	0.00200	"	0.100		109	70-130	1.79	20	
Naphthalene	0.120	0.00380	"	0.100		120	70-130	3.58	20	
Toluene	0.101	0.00200	"	0.100		101	70-130	2.15	20	
o-Xylene	0.110	0.00200	"	0.100		110	70-130	0.291	20	
m,p-Xylene	0.215	0.00400	"	0.200		107	70-130	2.41	20	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A2625 - EPA 3580										
Blank (B3A2625-BLK1)					Prepared: 01/26/2023 Analyzed: 01/26/2023					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	23		"	24.9		90.5	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A2625 - EPA 3580										
LCS (B3A2625-BS1)					Prepared: 01/26/2023 Analyzed: 01/26/2023					
Diesel (C10-C28)	888	50.0	mg/kg	1000		88.8	70-130			
Residual Range Organics (C28-C40)	831	200	"	1000		83.1	70-130			
Surrogate: o-Terphenyl	44		"	49.8		89.0	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B3A2625 - EPA 3580

Matrix Spike (B3A2625-MS1)		Source: Y301448-01			Prepared: 01/26/2023 Analyzed: 01/26/2023					
Diesel (C10-C28)	941	50.0	mg/kg	1000	ND	94.1	70-130			
Residual Range Organics (C28-C40)	972	200	"	1000	ND	97.2	70-130			
Surrogate: o-Terphenyl	44		"	49.8		89.0	50-150			

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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 B3A2625 - EPA 3580

Matrix Spike Dup (B3A2625-MSD1)		Source: Y301448-01			Prepared: 01/26/2023 Analyzed: 01/26/2023					
Diesel (C10-C28)	938	50.0	mg/kg	1000	ND	93.8	70-130	0.359	35	
Residual Range Organics (C28-C40)	938	200	"	1000	ND	93.8	70-130	3.55	35	
Surrogate: o-Terphenyl	44		"	49.8		89.0	50-150			

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Extractable Petroleum Hydrocarbons by 8015D - 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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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 B3A2703 - Saturated Paste Metals

Blank (B3A2703-BLK1)

Prepared: 01/27/2023 Analyzed: 01/30/2023

SAR	0.00		SAR
Calcium PPM	ND	10.0	mg/L
Magnesium PPM	ND	10.0	"
Sodium PPM	ND	10.0	"

Duplicate (B3A2703-DUP1)

Source: Y301435-01

Prepared: 01/27/2023 Analyzed: 01/30/2023

SAR	0.00		SAR	19.6	200	200
Calcium PPM	75.2	10.0	mg/L	70.5	6.33	50
Magnesium PPM	149	10.0	"	139	7.10	50
Sodium PPM	1260	10.0	"	1230	2.65	50

Batch B3A2704 - Saturated Paste Metals

Blank (B3A2704-BLK1)

Prepared: 01/27/2023 Analyzed: 01/30/2023

Calcium PPM	ND	10.0	mg/L
SAR	0.00		SAR
Magnesium PPM	ND	10.0	mg/L
Sodium PPM	ND	10.0	"

Duplicate (B3A2704-DUP1)

Source: Y301450-05

Prepared: 01/27/2023 Analyzed: 01/30/2023

Calcium PPM	131	10.0	mg/L	138	5.18	50
SAR	0.00		SAR	1.98	200	200

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3A2704 - Saturated Paste Metals										
Duplicate (B3A2704-DUP1)		Source: Y301450-05			Prepared: 01/27/2023 Analyzed: 01/30/2023					
Magnesium PPM	38.3	10.0	mg/L		40.3			5.24	50	
Sodium PPM	95.7	10.0	"		103			7.24	50	
Batch B3A2707 - DTPA Sorbitol Preparation										
Blank (B3A2707-BLK1)		Prepared: 01/27/2023 Analyzed: 01/30/2023								
Boron	ND	0.100	mg/L							
Duplicate (B3A2707-DUP1)		Source: Y301435-01			Prepared: 01/27/2023 Analyzed: 01/30/2023					
Boron	2.39	0.0991	mg/L		2.20			8.10	50	
Batch B3A2708 - DTPA Sorbitol Preparation										
Blank (B3A2708-BLK1)		Prepared: 01/27/2023 Analyzed: 01/30/2023								
Boron	ND	0.100	mg/L							
Duplicate (B3A2708-DUP1)		Source: Y301450-05			Prepared: 01/27/2023 Analyzed: 01/30/2023					
Boron	0.251	0.0999	mg/L		0.262			4.44	50	

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

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 B3A2716 - Saturated Paste pH/EC

Blank (B3A2716-BLK1)

Prepared: 01/27/2023 Analyzed: 01/28/2023

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B3A2716-DUP1)

Source: Y301435-01

Prepared: 01/27/2023 Analyzed: 01/28/2023

Specific Conductance (EC)	6.46	0.00500	mmhos/cm	6.03	6.89	25
pH	8.20		pH Units	8.25	0.608	25

Batch B3A2717 - Saturated Paste pH/EC

Blank (B3A2717-BLK1)

Prepared: 01/27/2023 Analyzed: 01/28/2023

Specific Conductance (EC) ND 0.00500 mmhos/cm

Duplicate (B3A2717-DUP1)

Source: Y301450-05

Prepared: 01/27/2023 Analyzed: 01/28/2023

pH	7.90		pH Units	7.87	0.380	25
Specific Conductance (EC)	1.41	0.00500	mmhos/cm	1.51	6.79	25

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Andy Sagen
Project Number: [none]
Project: KMG - I & J 7-6 & Bulthaup 21-6

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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