



October 19, 2021

Tasman Geosciences

Mike Jahn

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - Hauck 24-29

Project Number - 90419452

Attached are your analytical results for KMG - Hauck 24-29 received by Origins Laboratory, Inc. October 11, 2021. This project is associated with Origins project number Y110232-01.

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AST-B01@3"	Y110232-01	Soil	October 11, 2021 15:25	10/11/2021 17:51
AST-B02@3"	Y110232-02	Soil	October 11, 2021 15:27	10/11/2021 17:51
AST-B04@3"	Y110232-03	Soil	October 11, 2021 15:31	10/11/2021 17:51
SEP-B01@3"	Y110232-04	Soil	October 11, 2021 16:02	10/11/2021 17:51
SEP-B02@3"	Y110232-05	Soil	October 11, 2021 16:04	10/11/2021 17:51
SEP-B03@3"	Y110232-06	Soil	October 11, 2021 16:06	10/11/2021 17:51
SEP-B04@3"	Y110232-07	Soil	October 11, 2021 16:08	10/11/2021 17:51
PW-B01@1'	Y110232-08	Soil	October 11, 2021 16:24	10/11/2021 17:51
PW-S01@3"	Y110232-09	Soil	October 11, 2021 16:28	10/11/2021 17:51

Origins Laboratory, Inc.



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Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

ORIGINS
LABORATORY, INC

www.originslaboratory.com

4110232

page 1 of 1

Client: OXY-Tasman
Address: _____
Telephone Number: _____
Email Address: mjahn@tasman-geo.com

Project Manager: Mike Jahn
Project Name: HAUCK 24-29
Project Number: 90419452
Samples Collected By: SJA
Project Name changed per the physical from Sierra on 10/12/10

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis	Sample Instructions
AST-Bore 3"	10-11-21	1625	2	X	Soil	Full 915	*Saturated paste
AST-Bore 3"		1627	2		Groundwater	Full 915	X * 100 Water 2
AST-Bore 3"		1631	2		Other	Full 915	X
SEP-Bore 3"		1602	1		Other	Full 915	X
SEP-Bore 3"		1604	1		Other	Full 915	X
SEP-Bore 3"		1606	1		Other	Full 915	X
SEP-Bore 3"		1608	1		Other	Full 915	X
PW-Bore 1"		1624	1		Other	Full 915	X
PW-Bore 3"		1628	1		Other	Full 915	X
Relinquished By: <u>Mike Jahn</u>	Date: <u>10-11-21</u>	Time: <u>1748</u>	Time: <u>1748</u>	Received By: <u>SJA</u>	Date: <u>10-11-21</u>	Time: <u>17:51</u>	Turnaround Time: <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard

Temp Received: 4.1 Date Results Needed

Origins Laboratory, Inc.

Jordan A. Merrill

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Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4110232

Client: Tasman

Client Project ID: Hauck 24-19

Checklist Completed by: KH

Shipped Via: HD

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

Date/time completed: 10/11/21

Airbill #: NA

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

Cooler Number/Temperature: 1 / 4.1 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: 1003

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.

Jordan A. Merrill
Reviewed by (Project Manager)

10/11/21
Date/Time Reviewed

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

AST-B01@3"

10/11/2021 3:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-01 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.201	mg/L	1	B1J1121	10/11/2021	10/13/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1119	10/11/2021	10/11/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	70.2 %	50-150			"	"	"	
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GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	70-130			"	"	"	
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10/11/2021 3:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-01 (Soil)

GBTEX+TMBs

Surrogate: Toluene-d8	98.1 %		70-130			B1J11 20	10/11/2021	10/12/2021	
Surrogate: 4-Bromofluorobenzene	104 %		70-130			"	"	"	

Metals by Saturated Paste

Calcium	ND		0.499	meq/L	10	[CALC]	10/12/2021	10/13/2021	
Magnesium	ND		0.823	"	"	"	"	"	
Sodium	5.39		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L579580	10/18/2021	10/18/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.0003	0.00067	"	"	"	"	"	
Anthracene	ND	0.00033	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00041	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.00014	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00021	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00013	0.00067	"	"	"	"	"	
Chrysene	ND	0.00027	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00036	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.00039	0.00067	"	"	"	"	"	

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10/11/2021 3:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110232-01 (Soil)

PAH by 8270D SIM

Fluorene	ND	0.00029	0.00067	mg/Kg	1	L579580	10/18/2021	10/18/2021
Indeno(1,2,3-cd)pyrene	ND	0.00029	0.00067	"	"	"	"	"
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"
Pyrene	ND	0.00059	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	83.4 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	80.7 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	70.5 %		29-110			"	"	"

pH in Soil by 9045D

pH	8.04			pH Units	1	B1J1223	10/12/2021	10/13/2021
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SAR by 20B Saturated Paste

SAR	12.4			SAR	1	B1J1212	10/12/2021	10/13/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.575		0.00500	mmhos/cm	1	B1J1226	10/12/2021	10/13/2021
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Total Metals by 6020B

Arsenic	1.56	0.0855	0.25	mg/Kg	5	L579485	10/15/2021	10/18/2021
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AST-B01@3"

10/11/2021 3:25:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110232-01 (Soil)

Total Metals by 6020B

Barium	47.5	0.042	0.25	mg/Kg	5	L579485	10/15/2021	10/18/2021	
Cadmium	0.0578	0.0259	0.25	"	"	"	"	"	J
Copper	7.51	0.0806	0.25	"	"	"	"	"	
Lead	5.11	0.031	0.25	"	"	"	"	"	B
Nickel	6.95	0.0633	0.25	"	"	"	"	"	
Selenium	0.232	0.103	0.25	"	"	"	"	"	J
Silver	0.024	0.0067	0.25	"	"	"	"	"	J
Zinc	21.9	0.534	2.5	"	"	"	"	"	

Total Metals by 7196A

Chromium, Hexavalent	ND	0.252	0.517	mg/Kg	1	L579586	10/11/2021	10/18/2021	
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6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

AST-B02@3"

10/11/2021 3:27:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y110232-02 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.202	mg/L	1	B1J1121	10/11/2021	10/13/2021
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	140	25.0	mg/kg	1	B1J1119	10/11/2021	10/11/2021
Residual Range Organics (C28-C40)	220	100	"	"	"	"	"

Surrogate: o-Terphenyl	67.6 %	50-150	"	"	"
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GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.4 %	70-130	"	"	"
Surrogate: Toluene-d8	96.9 %	70-130	"	"	"

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Project Number: 90419452
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AST-B02@3"

10/11/2021 3:27:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-02 (Soil)

GBTEX+TMBs

Surrogate: 4-Bromofluorobenzene	105 %	70-130	B1J11 20	10/11/2021	10/12/2021
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Metals by Saturated Paste

Calcium	1.84	0.499	meq/L	10	[CALC]	10/12/2021	10/13/2021
Magnesium	1.18	0.823	"	"	"	"	"
Sodium	0.809	0.435	"	"	"	"	"

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00165	0.00335	mg/Kg	5	L579580	10/18/2021	10/18/2021
2-Methylnaphthalene	ND	0.00195	0.00335	"	"	"	"	"
Acenaphthene	ND	0.0015	0.00335	"	"	"	"	"
Anthracene	ND	0.00165	0.00335	"	"	"	"	"
Benzo(a)anthracene	ND	0.00205	0.00335	"	"	"	"	"
Benzo(a)pyrene	ND	0.0007	0.00335	"	"	"	"	"
Benzo(b)fluoranthene	ND	0.00105	0.00335	"	"	"	"	"
Benzo(k)fluoranthene	ND	0.00065	0.00335	"	"	"	"	"
Chrysene	0.0105	0.00135	0.00335	"	"	"	"	"
Dibenz(a,h)anthracene	ND	0.0018	0.00335	"	"	"	"	"
Fluoranthene	ND	0.00195	0.00335	"	"	"	"	"
Fluorene	ND	0.00145	0.00335	"	"	"	"	"

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AST-B02@3"

10/11/2021 3:27:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110232-02 (Soil)

PAH by 8270D SIM

Indeno(1,2,3-cd)pyrene	ND	0.00145	0.00335	mg/Kg	5	L579580	10/18/2021	10/18/2021
Naphthalene	ND	0.00234	0.00335	"	"	"	"	"
Pyrene	ND	0.00295	0.00335	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	74.5 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	83.9 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	54.5 %		29-110			"	"	"

pH in Soil by 9045D

pH	7.76			pH Units	1	B1J1223	10/12/2021	10/13/2021
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SAR by 20B Saturated Paste

SAR	0.658			SAR	1	B1J1212	10/12/2021	10/13/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.359		0.00500	mmhos/cm	1	B1J1226	10/12/2021	10/13/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	0.497	1.02	mg/Kg	2	L579587	10/11/2021	10/18/2021
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Project Number: 90419452
Project: KMG - Hauck 24-29

AST-B02@3"

10/11/2021 3:27:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110232-02 (Soil)

Total Metals by 6020B

Arsenic	1.17	0.0855	0.25	mg/Kg	5	L579485	10/15/2021	10/18/2021	
Barium	52.5	0.042	0.25	"	"	"	"	"	
Cadmium	0.0518	0.0259	0.25	"	"	"	"	"	J
Copper	6.19	0.0806	0.25	"	"	"	"	"	
Lead	4.72	0.031	0.25	"	"	"	"	"	B
Nickel	5.53	0.0633	0.25	"	"	"	"	"	
Selenium	0.244	0.103	0.25	"	"	"	"	"	J
Silver	0.0242	0.0067	0.25	"	"	"	"	"	J
Zinc	18	0.534	2.5	"	"	"	"	"	

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Project Number: 90419452
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AST-B04@3"

10/11/2021 3:31:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-03 (Soil)

Boron (DTPA Sorbitol)

Boron	ND	0.199	mg/L	1	B1J1121	10/11/2021	10/13/2021	
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1119	10/11/2021	10/11/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	64.8 %	50-150			"	"	"
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GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	112 %	70-130			"	"	"
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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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

AST-B04@3"

10/11/2021 3:31:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y110232-03 (Soil)

GBTEX+TMBs

Surrogate: Toluene-d8	95.4 %		70-130			B1J11 20	10/11/2021	10/12/2021	
Surrogate: 4-Bromofluorobenzene	104 %		70-130			"	"	"	

Metals by Saturated Paste

Calcium	2.14		0.499	meq/L	10	[CALC]	10/12/2021	10/13/2021	
Magnesium	3.85		0.823	"	"	"	"	"	
Sodium	0.692		0.435	"	"	"	"	"	

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L579580	10/18/2021	10/18/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.0003	0.00067	"	"	"	"	"	
Anthracene	ND	0.00033	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00041	0.00067	"	"	"	"	"	
Benzo(a)pyrene	ND	0.00014	0.00067	"	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00021	0.00067	"	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00013	0.00067	"	"	"	"	"	
Chrysene	ND	0.00027	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00036	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.00039	0.00067	"	"	"	"	"	

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

AST-B04@3"

10/11/2021 3:31:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110232-03 (Soil)

PAH by 8270D SIM

Fluorene	ND	0.00029	0.00067	mg/Kg	1	L579580	10/18/2021	10/18/2021
Indeno(1,2,3-cd)pyrene	ND	0.00029	0.00067	"	"	"	"	"
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"
Pyrene	ND	0.00059	0.00067	"	"	"	"	"

Surrogate: 2-Fluorobiphenyl	83.1 %		33-115			"	"	"
Surrogate: 4-Terphenyl-d14	78.5 %		33-122			"	"	"
Surrogate: Nitrobenzene-d5	68.3 %		29-110			"	"	"

pH in Soil by 9045D

pH	8.04			pH Units	1	B1J1223	10/12/2021	10/13/2021
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SAR by 20B Saturated Paste

SAR	0.400			SAR	1	B1J1212	10/12/2021	10/13/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.743		0.00500	mmhos/cm	1	B1J1226	10/12/2021	10/13/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	0.253	0.519	mg/Kg	1	L579587	10/11/2021	10/18/2021
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Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

AST-B04@3"

10/11/2021 3:31:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110232-03 (Soil)

Total Metals by 6020B

Arsenic	1.53	0.0855	0.25	mg/Kg	5	L579485	10/15/2021	10/18/2021	
Barium	56.2	0.042	0.25	"	"	"	"	"	
Cadmium	0.0567	0.0259	0.25	"	"	"	"	"	J
Copper	7.46	0.0806	0.25	"	"	"	"	"	
Lead	5.3	0.031	0.25	"	"	"	"	"	B
Nickel	6.21	0.0633	0.25	"	"	"	"	"	
Selenium	0.279	0.103	0.25	"	"	"	"	"	
Silver	0.0346	0.0067	0.25	"	"	"	"	"	J
Zinc	23.3	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

SEP-B01@3"

10/11/2021 4:02:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-04 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND		25.0	mg/kg	1	B1J1119	10/11/2021	10/11/2021	U
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl 69.4 % 50-150 " " "

GBTEX+TMBs

Naphthalene	ND		0.00380	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 101 % 70-130 " " "
Surrogate: Toluene-d8 97.3 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 105 % 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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

SEP-B02@3"

10/11/2021 4:04:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-05 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	30.9		25.0	mg/kg	1	B1J1119	10/11/2021	10/11/2021	
Residual Range Organics (C28-C40)	ND		100	"	"	"	"	"	U

Surrogate: o-Terphenyl	51.0 %		50-150			"	"	"	
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GBTEX+TMBs

Naphthalene	ND		0.00380	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
Benzene	ND		0.00200	"	"	"	"	"	U
Ethylbenzene	ND		0.00200	"	"	"	"	"	U
Toluene	ND		0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND		0.200	"	"	"	"	"	U
Xylenes, total	ND		0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %		70-130			"	"	"	
Surrogate: Toluene-d8	98.2 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	104 %		70-130			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

SEP-B03@3"

10/11/2021 4:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-06 (Soil)

Boron (DTPA Sorbitol)

Boron	0.282	0.202	mg/L	1	B1J1121	10/11/2021	10/13/2021
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DRO/ORO by EPA 8015D

Diesel (C10-C28)	278	25.0	mg/kg	1	B1J1119	10/11/2021	10/11/2021
Residual Range Organics (C28-C40)	354	100	"	"	"	"	"

Surrogate: o-Terphenyl	69.5 %	50-150	"	"	"
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GBTEX+TMBs

1,2,4-Trimethylbenzene	ND	0.00200	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
Naphthalene	ND	0.00380	"	"	"	"	"	U
1,3,5-Trimethylbenzene	ND	0.00200	"	"	"	"	"	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

SEP-B03@3"

10/11/2021 4:06:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc. Y110232-06 (Soil)

GBTEX+TMBs

Surrogate: 1,2-Dichloroethane-d4	105 %		70-130			B1J11 20	10/11/2021	10/12/2021	
Surrogate: Toluene-d8	96.9 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	106 %		70-130			"	"	"	

Metals by Saturated Paste

Calcium	6.04		0.499	meq/L	10	[CALC]	10/12/2021	10/13/2021	
Magnesium	1.74		0.823	"	"	"	"	"	
Sodium	ND		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	7.29			pH Units	1	B1J1223	10/12/2021	10/13/2021	
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SAR by 20B Saturated Paste

SAR	0.0639			SAR	1	B1J1212	10/12/2021	10/13/2021	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.708		0.00500	mmhos/cm	1	B1J1226	10/12/2021	10/13/2021	
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

SEP-B04@3"

10/11/2021 4:08:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-07 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1119	10/11/2021	10/11/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 68.3 % 50-150 " " "

GBTEX+TMBs

Naphthalene	ND	0.00380	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 103 % 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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PW-B01@1'

10/11/2021 4:24:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-08 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1119	10/11/2021	10/12/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	69.1 %	50-150	"	"	"
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GBTEX+TMBs

Naphthalene	ND	0.00380	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130	"	"	"
Surrogate: Toluene-d8	96.0 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	105 %	70-130	"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PW-S01@3"

10/11/2021 4:28:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110232-09 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1J1119	10/11/2021	10/12/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 70.0 % 50-150 " " "

GBTEX+TMBs

Naphthalene	ND	0.00380	mg/kg	1	B1J1120	10/11/2021	10/12/2021	U
Benzene	ND	0.00200	"	"	"	"	"	U
Ethylbenzene	ND	0.00200	"	"	"	"	"	U
Toluene	ND	0.00200	"	"	"	"	"	U
Gasoline Range Hydrocarbons	ND	0.200	"	"	"	"	"	U
Xylenes, total	ND	0.00200	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 102 % 70-130 " " "
Surrogate: Toluene-d8 96.5 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1119 - EPA 3550B										
Blank (B1J1119-BLK1)					Prepared: 10/11/2021 Analyzed: 10/11/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	18		"	25.0		72.3	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1119 - EPA 3550B

LCS (B1J1119-BS1)

Prepared: 10/11/2021 Analyzed: 10/11/2021

Diesel (C10-C28)	744	50.0	mg/kg	1000		74.4	70-130			
Residual Range Organics (C28-C40)	849	200	"	1000		84.9	70-130			
Surrogate: o-Terphenyl	36		"	50.0		71.8	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1119 - EPA 3550B

Matrix Spike (B1J1119-MS1)		Source: Y110231-01			Prepared: 10/11/2021 Analyzed: 10/11/2021					
Diesel (C10-C28)	706	50.0	mg/kg	1000	ND	70.6	70-130			
Residual Range Organics (C28-C40)	808	200	"	1000	ND	80.8	70-130			
Surrogate: o-Terphenyl	35		"	50.0		69.0	50-150			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1119 - EPA 3550B										
Matrix Spike Dup (B1J1119-MSD1)		Source: Y110231-01			Prepared: 10/11/2021 Analyzed: 10/11/2021					
Diesel (C10-C28)	667	50.0	mg/kg	1000	ND	66.7	70-130	5.76	35	QM-07
Residual Range Organics (C28-C40)	803	200	"	1000	ND	80.3	70-130	0.652	35	
Surrogate: o-Terphenyl	34		"	50.0		67.9	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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1120 - EPA 5030 (soil)										
Blank (B1J1120-BLK1)					Prepared: 10/11/2021 Analyzed: 10/11/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.00380	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Xylenes, total	ND	0.00200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.3	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		93.1	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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1120 - EPA 5030 (soil)										
LCS (B1J1120-BS1)					Prepared: 10/11/2021 Analyzed: 10/12/2021					
1,2,4-Trimethylbenzene	0.0470	0.00200	mg/kg	0.0500		93.9	70-130			
Naphthalene	0.0517	0.0100	"	0.0500		103	70-130			
1,3,5-Trimethylbenzene	0.0460	0.00200	"	0.0500		91.9	70-130			
Benzene	0.0438	0.00200	"	0.0500		87.6	70-130			
Ethylbenzene	0.0456	0.00200	"	0.0500		91.2	70-130			
m,p-Xylene	0.0931	0.00400	"	0.100		93.1	70-130			
o-Xylene	0.0463	0.00200	"	0.0500		92.6	70-130			
Toluene	0.0456	0.00200	"	0.0500		91.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		91.3	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.0	70-130			

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1120 - EPA 5030 (soil)

Matrix Spike (B1J1120-MS1)		Source: Y110231-01			Prepared: 10/11/2021 Analyzed: 10/12/2021					
1,2,4-Trimethylbenzene	0.0386	0.00200	mg/kg	0.0500	ND	77.3	70-130			
Naphthalene	0.0380	0.0100	"	0.0500	ND	76.0	70-130			
1,3,5-Trimethylbenzene	0.0379	0.00200	"	0.0500	ND	75.7	70-130			
Benzene	0.0379	0.00200	"	0.0500	ND	75.8	70-130			
Ethylbenzene	0.0382	0.00200	"	0.0500	ND	76.4	70-130			
m,p-Xylene	0.0778	0.00400	"	0.100	ND	77.8	70-130			
o-Xylene	0.0399	0.00200	"	0.0500	ND	79.7	70-130			
Toluene	0.0392	0.00200	"	0.0500	ND	78.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.7	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.3	70-130			

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Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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 B1J1120 - EPA 5030 (soil)										
Matrix Spike Dup (B1J1120-MSD1)		Source: Y110231-01			Prepared: 10/11/2021 Analyzed: 10/12/2021					
1,2,4-Trimethylbenzene	0.0510	0.00200	mg/kg	0.0500	ND	102	70-130	27.5	20	QR-03
Naphthalene	0.0537	0.0100	"	0.0500	ND	107	70-130	34.4	20	QR-03
1,3,5-Trimethylbenzene	0.0498	0.00200	"	0.0500	ND	99.7	70-130	27.3	20	QR-03
Benzene	0.0450	0.00200	"	0.0500	ND	90.1	70-130	17.3	20	
Ethylbenzene	0.0474	0.00200	"	0.0500	ND	94.8	70-130	21.5	20	QR-03
m,p-Xylene	0.0966	0.00400	"	0.100	ND	96.6	70-130	21.6	20	QR-03
o-Xylene	0.0496	0.00200	"	0.0500	ND	99.2	70-130	21.8	20	QR-03
Toluene	0.0474	0.00200	"	0.0500	ND	94.9	70-130	19.0	20	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		90.6	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		102	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		93.8	70-130			

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

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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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 B1J1223 - NO PREP

Duplicate (B1J1223-DUP1)

Source: Y110231-06

Prepared: 10/12/2021 Analyzed: 10/13/2021

pH	7.97		pH Units	8.15		2.23	25
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Batch B1J1226 - NO PREP

Blank (B1J1226-BLK1)

Prepared: 10/12/2021 Analyzed: 10/13/2021

Specific Conductance (EC)	0.00250	0.00500	mmhos/cm
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Duplicate (B1J1226-DUP1)

Source: Y110231-06

Prepared: 10/12/2021 Analyzed: 10/13/2021

Specific Conductance (EC)	0.944	0.00500	mmhos/cm	1.07		12.5	25
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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579580 - 3550B

MSD (L 86393-MSD-L579580)		Source: 86393			Prepared: 10/18/2021 Analyzed: 10/18/2021					
Fluoranthene	0.126	0.00039	mg/Kg	0.164	86393	76.8	30-130	2.3	30	
Fluorene	0.123	0.00029	"	0.164	0.0073	70.5	30-130	1.6	30	
Indeno(1,2,3-cd)pyrene	0.134	0.00029	"	0.164	0.00159	80.7	30-130	4.5	30	
Naphthalene	0.0994	0.000467	"	0.164	0.00102	59.9	30-130	3	30	
Pyrene	0.125	0.00059	"	0.164	86393	76.2	30-130	3.9	30	
Dibenz(a,h)anthracene	0.12	0.00036	"	0.164	0.00139	72.3	30-130	1.6	30	
Benzo(a)anthracene	0.122	0.00041	"	0.164	0.000707	73.9	30-130	2.4	30	
Benzo(k)fluoranthene	0.121	0.00013	"	0.164	0.000949	73.2	30-130	1.6	30	
Benzo(a)pyrene	0.127	0.00014	"	0.164	0.00073	76.9	30-130	2.3	30	
Anthracene	0.114	0.00033	"	0.164	86393	69.5	30-130	0.8	30	
Acenaphthene	0.108	0.0003	"	0.164	0.00245	64.3	30-130	0.9	30	
2-Methylnaphthalene	0.105	0.00039	"	0.164	0.000622	64	30-130	2.8	30	
Chrysene	0.123	0.00027	"	0.164	0.00088	74.4	30-130	0.8	30	
Benzo(b)fluoranthene	0.131	0.00021	"	0.164	0.00122	79.1	30-130	0	30	
1-Methylnaphthalene	0.104	0.00033	"	0.164	0.000897	62.8	30-130	1.9	30	
Surrogate: Nitrobenzene-d5	66.2		"	0.329	230	66.2	29-110			
Surrogate: 2-Fluorobiphenyl	83.8		"	0.329	257	83.8	33-115			
Surrogate: 4-Terphenyl-d14	86.3		"	0.329	257	86.3	33-122			

MS (L 86393-MS-L579580)		Source: 86393			Prepared: 10/18/2021 Analyzed: 10/18/2021					
Benzo(k)fluoranthene	0.123	0.00013	mg/Kg	0.165	0.000949	73.9	30-130			
Benzo(b)fluoranthene	0.131	0.00021	"	0.165	0.00122	78.6	30-130			
Benzo(a)pyrene	0.13	0.00014	"	0.165	0.00073	78.3	30-130			
Benzo(a)anthracene	0.125	0.00041	"	0.165	0.000707	75.3	30-130			
Anthracene	0.115	0.00033	"	0.165	86393	69.6	30-130			
Acenaphthene	0.107	0.0003	"	0.165	0.00245	63.3	30-130			
Fluorene	0.121	0.00029	"	0.165	0.0073	68.9	30-130			

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579580 - 3550B

MS (L 86393-MS-L579580)		Source: 86393			Prepared: 10/18/2021 Analyzed: 10/18/2021					
2-Methylnaphthalene	0.102	0.00039	mg/Kg	0.165	0.000622	61.8	30-130			
1-Methylnaphthalene	0.102	0.00033	"	0.165	0.000897	61.2	30-130			
Fluoranthene	0.129	0.00039	"	0.165	86393	78.1	30-130			
Dibenz(a,h)anthracene	0.122	0.00036	"	0.165	0.00139	73	30-130			
Indeno(1,2,3-cd)pyrene	0.128	0.00029	"	0.165	0.00159	76.6	30-130			
Naphthalene	0.0964	0.000467	"	0.165	0.00102	57.8	30-130			
Pyrene	0.13	0.00059	"	0.165	86393	78.7	30-130			
Chrysene	0.122	0.00027	"	0.165	0.00088	73.4	30-130			
Surrogate: 2-Fluorobiphenyl	78.4		"	0.33	257	78.4	33-115			
Surrogate: 4-Terphenyl-d14	88.4		"	0.33	257	88.4	33-122			
Surrogate: Nitrobenzene-d5	64.2		"	0.33	230	64.2	29-110			

LCS (LCS-L579580)

Prepared: 10/18/2021 Analyzed: 10/18/2021

Naphthalene	0.0922	0.000467	mg/Kg	0.167		55.2	30-130
Anthracene	0.111	0.00033	"	0.167		66.4	30-130
Benzo(a)anthracene	0.117	0.00041	"	0.167		70	30-130
Benzo(a)pyrene	0.121	0.00014	"	0.167		72.4	30-130
Benzo(b)fluoranthene	0.127	0.00021	"	0.167		76	30-130
Benzo(k)fluoranthene	0.121	0.00013	"	0.167		72.4	30-130
Chrysene	0.117	0.00027	"	0.167		70	30-130
Dibenz(a,h)anthracene	0.129	0.00036	"	0.167		77.2	30-130
Fluoranthene	0.119	0.00039	"	0.167		71.2	30-130
Indeno(1,2,3-cd)pyrene	0.138	0.00029	"	0.167		82.6	30-130
2-Methylnaphthalene	0.0955	0.00039	"	0.167		57.1	30-130
Fluorene	0.106	0.00029	"	0.167		63.4	30-130
1-Methylnaphthalene	0.0967	0.00033	"	0.167		57.9	30-130
Acenaphthene	0.0991	0.0003	"	0.167		59.3	30-130

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579580 - 3550B

LCS (LCS-L579580)

Prepared: 10/18/2021 Analyzed: 10/18/2021

Pyrene	0.117	0.00059	mg/Kg	0.167		70	30-130			
Surrogate: 4-Terphenyl-d14	81.9		"	0.333	81.9		33-122			
Surrogate: Nitrobenzene-d5	67.2		"	0.333	67.2		29-110			
Surrogate: 2-Fluorobiphenyl	78.6		"	0.333	78.6		33-115			

LRB (LRB-L579580)

Prepared: 10/18/2021 Analyzed: 10/18/2021

Indeno(1,2,3-cd)pyrene	ND	0.00067	mg/Kg				-			
2-Methylnaphthalene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Surrogate: 2-Fluorobiphenyl	74.4		"	0.333	74.4		33-115			
Surrogate: 4-Terphenyl-d14	74.7		"	0.333	74.7		33-122			
Surrogate: Nitrobenzene-d5	59.4		"	0.333	59.4		29-110			

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 7196A - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L579587 -										
DUP (L 86373-DUP)		Source: Y110232-02			Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	ND	0.507	mg/Kg		86373	-		0	20	
MS (L 86373-MS)		Source: Y110232-02			Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	4.89	0.502	mg/Kg	8.26	86373	59	75-125			*
LRB (LRB)					Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

Origins Laboratory, Inc.



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6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 6020B - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L579485 - 3050B										
MSD (L 86387-MSD-L579485)			Source: 86387		Prepared: 10/15/2021 Analyzed: 10/18/2021					
Lead	16.8	0.031	mg/Kg	2.34	14.5	98	75-125	30.3	80	
Arsenic	3.5	0.0855	"	2.34	1.92	67	75-125	6.6	80	*
Zinc	74.1	0.534	"	23.4	48.6	109	75-125	5.6	80	
Barium	144	0.042	"	4.68	143	21	75-125	17.1	80	*
Copper	12.8	0.0806	"	2.34	9.71	132	75-125	1.5	80	*
Nickel	10.5	0.0633	"	2.34	7.78	116	75-125	0.9	80	
Selenium	3.14	0.103	"	4.68	0.251	62	75-125	0.9	80	*
Silver	0.483	0.0067	"	0.468	0.029	103	75-125	5	80	
Cadmium	0.653	0.0259	"	0.468	0.242	139	75-125	6.1	80	*
MS (L 86387-MS-L579485)			Source: 86387		Prepared: 10/15/2021 Analyzed: 10/18/2021					
Copper	12.6	0.0806	mg/Kg	2.32	9.71	125	75-125			
Cadmium	0.614	0.0259	"	0.463	0.242	133	75-125			*
Selenium	3.17	0.103	"	4.63	0.251	63	75-125			*
Barium	171	0.042	"	4.63	143	604	75-125			*
Arsenic	3.74	0.0855	"	2.32	1.92	79	75-125			
Lead	22.8	0.031	"	2.32	14.5	358	75-125			*
Zinc	70	0.534	"	23.2	48.6	92	75-125			
Silver	0.459	0.0067	"	0.463	0.029	99	75-125			
Nickel	10.4	0.0633	"	2.32	7.78	113	75-125			
LCS (LCS-L579485)			Prepared: 10/15/2021 Analyzed: 10/18/2021							
Lead	2.64	0.031	mg/Kg	2.5		106	80-120			
Arsenic	2.55	0.0855	"	2.5		102	80-120			
Barium	5.13	0.042	"	5		103	80-120			
Copper	2.57	0.0806	"	2.5		103	80-120			
Nickel	2.61	0.0633	"	2.5		104	80-120			

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 6020B - Quality Control Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579485 - 3050B

LCS (LCS-L579485)

Prepared: 10/15/2021 Analyzed: 10/18/2021

Selenium	5.22	0.103	mg/Kg	5		104	80-120			
Silver	0.525	0.0067	"	0.5		105	80-120			
Zinc	25.6	0.534	"	25		102	80-120			
Cadmium	0.491	0.0259	"	0.5		98	80-120			

LRB (LRB-L579485)

Prepared: 10/15/2021 Analyzed: 10/18/2021

Copper	ND	0.25	mg/Kg				-			
Zinc	ND	2.5	"				-			
Silver	ND	0.25	"				-			
Selenium	ND	0.25	"				-			
Lead	0.964	0.25	"				-			*
Cadmium	ND	0.25	"				-			
Barium	0.454	0.25	"				-			*
Arsenic	ND	0.25	"				-			
Nickel	0.138	0.25	"				-			J

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6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 7196A - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L579586 -										
DUP (L 93050-DUP)	Source: 93050				Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	1.42	0.244	mg/Kg		1.23	-		14.3	20	
MS (L 93050-MS)	Source: 93050				Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	3.97	0.244	mg/Kg	7.81	1.23	35	75-125			*
LCS (LCS)					Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	6.2	0.244	mg/Kg	8		78	75-125			

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Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Notes and Definitions

- U Sample is Non-Detect.
- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- J Estimated Value. Analyte below reported quantitation limit.
- B Analyte detected in associated method blank.
- * QC Failure
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- All soil results are reported on a wet weight basis.

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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.



October 20, 2021

Tasman Geosciences

Mike Jahn

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - Hauck 24-29

Project Number - 90419452

Attached are your analytical results for KMG - Hauck 24-29 received by Origins Laboratory, Inc. October 14, 2021. This project is associated with Origins project number Y110325-01.

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.
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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BG01@3"	Y110325-01	Soil	October 14, 2021 12:30	10/14/2021 16:27
BG01@1'	Y110325-02	Soil	October 14, 2021 12:32	10/14/2021 16:27
BG02@3"	Y110325-03	Soil	October 14, 2021 12:34	10/14/2021 16:27
BG02@1'	Y110325-04	Soil	October 14, 2021 12:36	10/14/2021 16:27
BG03@3"	Y110325-05	Soil	October 14, 2021 12:38	10/14/2021 16:27
BG03@1'	Y110325-06	Soil	October 14, 2021 12:40	10/14/2021 16:27
BG04@3"	Y110325-07	Soil	October 14, 2021 12:42	10/14/2021 16:27
BG04@1'	Y110325-08	Soil	October 14, 2021 12:44	10/14/2021 16:27
SEP-B03@3"	Y110325-09	Soil	October 14, 2021 12:50	10/14/2021 16:27

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y110325

Client: Tasman

Client Project ID: Hauck 24-29

Checklist Completed by: JG

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

Date/time completed: 10/14/21

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 4.8 °C _____ °C _____ °C _____ °C (Describe)

Thermometer ID: T003

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.

Reviewed by: (Project Manager)

10/14/21
Date/Time Reviewed

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG01@3"

10/14/2021 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-01 (Soil)

Boron (DTPA Sorbitol)

Boron	0.559	0.200	mg/L	1	B1J1502	10/15/2021	10/18/2021
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Metals by Saturated Paste

Calcium	12.2	0.499	meq/L	10	[CALC]	"	10/18/2021
Magnesium	6.27	0.823	"	"	"	"	"
Sodium	31.1	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	8.06	pH Units	1	B1J1509	10/15/2021	10/17/2021
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SAR by 20B Saturated Paste

SAR	10.2	SAR	1	B1J1504	10/15/2021	10/18/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	4.52	0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021
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Total Metals by 6020B

Arsenic	1.35	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021
Barium	44.1	0.042	0.25	"	"	"	"	"
Cadmium	0.063	0.0259	0.25	"	"	"	"	"
Copper	5.7	0.0806	0.25	"	"	"	"	"

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG01@3"

10/14/2021 12:30:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y110325-01 (Soil)

Total Metals by 6020B

Lead	4.55	0.031	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Nickel	5.92	0.0633	0.25	"	"	"	"	"	
Selenium	0.233	0.103	0.25	"	"	"	"	"	J
Silver	0.021	0.0067	0.25	"	"	"	"	"	J
Zinc	20.5	0.534	2.5	"	"	"	"	"	

Total Metals by 7196A

Chromium, Hexavalent	ND	0.246	0.506	mg/Kg	1	L579624	10/14/2021	10/18/2021	
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG01@1'

10/14/2021 12:32:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-02 (Soil)

Boron (DTPA Sorbitol)

Boron	3.17		0.198	mg/L	1	B1J1502	10/15/2021	10/18/2021	
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Metals by Saturated Paste

Calcium	21.9		0.499	meq/L	10	[CALC]	"	10/18/2021	
Magnesium	43.8		0.823	"	"	"	"	"	
Sodium	42.3		0.435	"	"	"	"	"	

pH in Soil by 9045D

pH	7.99			pH Units	1	B1J1509	10/15/2021	10/17/2021	
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SAR by 20B Saturated Paste

SAR	7.38			SAR	1	B1J1504	10/15/2021	10/18/2021	
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	7.76		0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021	
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Total Metals by 7196A

Chromium, Hexavalent	ND	1.26	2.58	mg/Kg	5	L579625	10/14/2021	10/18/2021	
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG01@1'

10/14/2021 12:32:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110325-02 (Soil)

Total Metals by 6020B

Arsenic	2.56	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Barium	87.5	0.042	0.25	"	"	"	"	"	
Cadmium	0.194	0.0259	0.25	"	"	"	"	"	J
Copper	10.8	0.0806	0.25	"	"	"	"	"	
Lead	11.2	0.031	0.25	"	"	"	"	"	
Nickel	12.5	0.0633	0.25	"	"	"	"	"	
Selenium	0.664	0.103	0.25	"	"	"	"	"	
Silver	0.0542	0.0067	0.25	"	"	"	"	"	J
Zinc	43.3	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG02@3"

10/14/2021 12:34:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-03 (Soil)

Boron (DTPA Sorbitol)

Boron	4.27	0.197	mg/L	1	B1J1502	10/15/2021	10/18/2021
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Metals by Saturated Paste

Calcium	5.40	0.499	meq/L	10	[CALC]	"	10/18/2021
Magnesium	6.80	0.823	"	"	"	"	"
Sodium	4.27	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	7.94	pH Units	1	B1J1509	10/15/2021	10/17/2021
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SAR by 20B Saturated Paste

SAR	1.73	SAR	1	B1J1504	10/15/2021	10/18/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.38	0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	2.44	5	mg/Kg	10	L579625	10/14/2021	10/18/2021
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG02@3"

10/14/2021 12:34:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110325-03 (Soil)

Total Metals by 6020B

Arsenic	2.22	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Barium	78.7	0.042	0.25	"	"	"	"	"	
Cadmium	0.153	0.0259	0.25	"	"	"	"	"	J
Copper	10.8	0.0806	0.25	"	"	"	"	"	
Lead	9.4	0.031	0.25	"	"	"	"	"	
Nickel	10.9	0.0633	0.25	"	"	"	"	"	
Selenium	0.501	0.103	0.25	"	"	"	"	"	
Silver	0.0477	0.0067	0.25	"	"	"	"	"	J
Zinc	39.8	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG02@1'

10/14/2021 12:36:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-04 (Soil)

Boron (DTPA Sorbitol)

Boron	2.32	0.200	mg/L	1	B1J1502	10/15/2021	10/18/2021
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Metals by Saturated Paste

Calcium	2.88	0.499	meq/L	10	[CALC]	"	10/18/2021
Magnesium	17.7	0.823	"	"	"	"	"
Sodium	44.9	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	8.48		pH Units	1	B1J1509	10/15/2021	10/17/2021
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SAR by 20B Saturated Paste

SAR	14.0		SAR	1	B1J1504	10/15/2021	10/18/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	6.29	0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L579625	10/14/2021	10/18/2021
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG02@1'

10/14/2021 12:36:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110325-04 (Soil)

Total Metals by 6020B

Arsenic	2.91	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Barium	95.6	0.042	0.25	"	"	"	"	"	
Cadmium	0.122	0.0259	0.25	"	"	"	"	"	J
Copper	14.2	0.0806	0.25	"	"	"	"	"	
Lead	10	0.031	0.25	"	"	"	"	"	
Nickel	14.1	0.0633	0.25	"	"	"	"	"	
Selenium	0.444	0.103	0.25	"	"	"	"	"	
Silver	0.0485	0.0067	0.25	"	"	"	"	"	J
Zinc	45.8	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG03@3"

10/14/2021 12:38:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-05 (Soil)

Boron (DTPA Sorbitol)

Boron	0.736	0.199	mg/L	1	B1J1502	10/15/2021	10/18/2021
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Metals by Saturated Paste

Calcium	5.70	0.499	meq/L	10	[CALC]	"	10/18/2021
Magnesium	3.34	0.823	"	"	"	"	"
Sodium	0.840	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	7.80		pH Units	1	B1J1509	10/15/2021	10/17/2021
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SAR by 20B Saturated Paste

SAR	0.395		SAR	1	B1J1504	10/15/2021	10/18/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	1.48	0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	1.22	2.5	mg/Kg	5	L579625	10/14/2021	10/18/2021
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG03@3"

10/14/2021 12:38:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y110325-05 (Soil)

Total Metals by 6020B

Arsenic	2.06	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Barium	60	0.042	0.25	"	"	"	"	"	
Cadmium	0.145	0.0259	0.25	"	"	"	"	"	J
Copper	10	0.0806	0.25	"	"	"	"	"	
Lead	8.92	0.031	0.25	"	"	"	"	"	
Nickel	10.7	0.0633	0.25	"	"	"	"	"	
Selenium	0.365	0.103	0.25	"	"	"	"	"	
Silver	0.0438	0.0067	0.25	"	"	"	"	"	J
Zinc	34.5	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG03@1'

10/14/2021 12:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-06 (Soil)

Boron (DTPA Sorbitol)

Boron	1.66	0.198	mg/L	1	B1J1502	10/15/2021	10/18/2021
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Metals by Saturated Paste

Calcium	0.529	0.499	meq/L	10	[CALC]	"	10/18/2021
Magnesium	1.83	0.823	"	"	"	"	"
Sodium	3.09	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	8.59	pH Units	1	B1J1509	10/15/2021	10/17/2021
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SAR by 20B Saturated Paste

SAR	2.85	SAR	1	B1J1504	10/15/2021	10/18/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	0.606	0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L579625	10/14/2021	10/18/2021
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG03@1'

10/14/2021 12:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110325-06 (Soil)

Total Metals by 6020B

Arsenic	2.45	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Barium	96.8	0.042	0.25	"	"	"	"	"	
Cadmium	0.11	0.0259	0.25	"	"	"	"	"	J
Copper	11.6	0.0806	0.25	"	"	"	"	"	
Lead	7.53	0.031	0.25	"	"	"	"	"	
Nickel	12.2	0.0633	0.25	"	"	"	"	"	
Selenium	0.331	0.103	0.25	"	"	"	"	"	
Silver	0.0432	0.0067	0.25	"	"	"	"	"	J
Zinc	35.9	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG04@3"

10/14/2021 12:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-07 (Soil)

Boron (DTPA Sorbitol)

Boron	2.06	0.198	mg/L	1	B1J1502	10/15/2021	10/18/2021
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Metals by Saturated Paste

Calcium	32.1	0.499	meq/L	10	[CALC]	"	10/18/2021
Magnesium	16.8	0.823	"	"	"	"	"
Sodium	18.9	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	8.02		pH Units	1	B1J1509	10/15/2021	10/17/2021
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SAR by 20B Saturated Paste

SAR	3.83		SAR	1	B1J1504	10/15/2021	10/18/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	5.92	0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L579625	10/14/2021	10/18/2021
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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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG04@3"

10/14/2021 12:42:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y110325-07 (Soil)

Total Metals by 6020B

Arsenic	1.4	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Barium	56.1	0.042	0.25	"	"	"	"	"	
Cadmium	0.0652	0.0259	0.25	"	"	"	"	"	J
Copper	6.19	0.0806	0.25	"	"	"	"	"	
Lead	4.4	0.031	0.25	"	"	"	"	"	
Nickel	5.84	0.0633	0.25	"	"	"	"	"	
Selenium	0.239	0.103	0.25	"	"	"	"	"	J
Silver	0.0208	0.0067	0.25	"	"	"	"	"	J
Zinc	21.3	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG04@1'

10/14/2021 12:44:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y110325-08 (Soil)

Boron (DTPA Sorbitol)

Boron	1.08	0.200	mg/L	1	B1J1502	10/15/2021	10/18/2021
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Metals by Saturated Paste

Calcium	22.5	0.499	meq/L	10	[CALC]	"	10/18/2021
Magnesium	44.2	0.823	"	"	"	"	"
Sodium	39.1	0.435	"	"	"	"	"

pH in Soil by 9045D

pH	7.80	pH Units	1	B1J1509	10/15/2021	10/17/2021
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SAR by 20B Saturated Paste

SAR	6.78	SAR	1	B1J1504	10/15/2021	10/18/2021
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Specific Conductance Mod. 9050A

Specific Conductance (EC)	8.22	0.00500	mmhos/cm	1	B1J1507	10/15/2021	10/17/2021
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Total Metals by 7196A

Chromium, Hexavalent	ND	0.247	0.508	mg/Kg	1	L579625	10/14/2021	10/18/2021
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Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

BG04@1'

10/14/2021 12:44:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.

Y110325-08 (Soil)

Total Metals by 6020B

Arsenic	4.2	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021	
Barium	97.9	0.042	0.25	"	"	"	"	"	
Cadmium	0.176	0.0259	0.25	"	"	"	"	"	J
Copper	9.98	0.0806	0.25	"	"	"	"	"	
Lead	9.84	0.031	0.25	"	"	"	"	"	
Nickel	11.9	0.0633	0.25	"	"	"	"	"	
Selenium	0.488	0.103	0.25	"	"	"	"	"	
Silver	0.0418	0.0067	0.25	"	"	"	"	"	J
Zinc	42	0.534	2.5	"	"	"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

SEP-B03@3"

10/14/2021 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y110325-09 (Soil)

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00033	0.00067	mg/Kg	1	L579682	10/18/2021	10/18/2021	
2-Methylnaphthalene	ND	0.00039	0.00067	"	"	"	"	"	
Acenaphthene	ND	0.0003	0.00067	"	"	"	"	"	
Anthracene	ND	0.00033	0.00067	"	"	"	"	"	
Benzo(a)anthracene	ND	0.00041	0.00067	"	"	"	"	"	
Benzo(a)pyrene	0.000232	0.00014	0.00067	"	"	"	"	"	J
Benzo(b)fluoranthene	0.000377	0.00021	0.00067	"	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.00013	0.00067	"	"	"	"	"	
Chrysene	0.00144	0.00027	0.00067	"	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00036	0.00067	"	"	"	"	"	
Fluoranthene	ND	0.00039	0.00067	"	"	"	"	"	
Fluorene	ND	0.00029	0.00067	"	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00029	0.00067	"	"	"	"	"	
Naphthalene	ND	0.000467	0.00067	"	"	"	"	"	
Pyrene	ND	0.00059	0.00067	"	"	"	"	"	

Surrogate: 2-Fluorobiphenyl	70.7 %	33-115	"	"	"
Surrogate: 4-Terphenyl-d14	81 %	33-122	"	"	"
Surrogate: Nitrobenzene-d5	71.6 %	29-110	"	"	"

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

SEP-B03@3"

10/14/2021 12:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y110325-09 (Soil)

Total Metals by 7196A

Chromium, Hexavalent	ND	0.244	0.5	mg/Kg	1	L579625	10/14/2021	10/18/2021
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Total Metals by 6020B

Arsenic	2.04	0.0855	0.25	mg/Kg	5	L579777	10/18/2021	10/19/2021
Barium	67	0.042	0.25	"	"	"	"	"
Cadmium	0.303	0.0259	0.25	"	"	"	"	"
Copper	7.05	0.0806	0.25	"	"	"	"	"
Lead	5.53	0.031	0.25	"	"	"	"	"
Nickel	6.69	0.0633	0.25	"	"	"	"	"
Selenium	0.227	0.103	0.25	"	"	"	"	" J
Silver	0.0199	0.0067	0.25	"	"	"	"	" J
Zinc	30.8	0.534	2.5	"	"	"	"	"

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Saturated Paste - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B1J1507 - NO PREP										
Blank (B1J1507-BLK1)					Prepared: 10/15/2021 Analyzed: 10/17/2021					
Specific Conductance (EC)	0.000900	0.00500	mmhos/cm							
Duplicate (B1J1507-DUP1)					Source: Y110324-01		Prepared: 10/15/2021 Analyzed: 10/17/2021			
Specific Conductance (EC)	2.41	0.00500	mmhos/cm		2.41			0.336	25	
Batch B1J1509 - NO PREP										
Duplicate (B1J1509-DUP1)					Source: Y110324-01		Prepared: 10/15/2021 Analyzed: 10/17/2021			
pH	8.27		pH Units		8.21			0.728	25	

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579682 - 3550B

MSD (L 86395-MSD-L579682)		Source: 86395			Prepared: 10/18/2021 Analyzed: 10/18/2021					
Pyrene	0.128	0.00059	mg/Kg	0.163	<0.000590	78.5	30-130	6	30	
Benzo(a)anthracene	0.125	0.00041	"	0.163	<0.000410	76.6	30-130	6.9	30	
Benzo(a)pyrene	0.141	0.00014	"	0.163	<0.000140	86.5	30-130	6.1	30	
Benzo(b)fluoranthene	0.0905	0.00021	"	0.163	<0.000210	55.5	30-130	2.3	30	
Benzo(k)fluoranthene	0.093	0.00013	"	0.163	<0.000130	57	30-130	2.8	30	
Chrysene	0.126	0.00027	"	0.163	<0.000270	77.3	30-130	6.8	30	
Dibenz(a,h)anthracene	0.157	0.00036	"	0.163	<0.000360	96.3	30-130	0	30	
Fluoranthene	0.129	0.00039	"	0.163	<0.000390	79.1	30-130	8.8	30	
Fluorene	0.121	0.00029	"	0.163	0.00499	71.1	30-130	12.4	30	
Naphthalene	0.107	0.000467	"	0.163	0.00122	64.8	30-130	11.4	30	
Anthracene	0.126	0.00033	"	0.163	<0.000330	77.3	30-130	10.5	30	
Acenaphthene	0.113	0.0003	"	0.163	0.00147	68.4	30-130	15.5	30	
2-Methylnaphthalene	0.107	0.00039	"	0.163	0.000568	65.6	30-130	11.4	30	
1-Methylnaphthalene	0.107	0.00033	"	0.163	0.000736	65.1	30-130	12.2	30	
Indeno(1,2,3-cd)pyrene	0.135	0.00029	"	0.163	<0.000290	82.8	30-130	6.1	30	
Surrogate: Nitrobenzene-d5	74.2		"	0.326	243	74.2	29-110			
Surrogate: 4-Terphenyl-d14	85.2		"	0.326	266	85.2	33-122			
Surrogate: 2-Fluorobiphenyl	68		"	0.326	211	68	33-115			

MS (L 86395-MS-L579682)		Source: 86395			Prepared: 10/18/2021 Analyzed: 10/18/2021					
Benzo(b)fluoranthene	0.0884	0.00021	mg/Kg	0.165	<0.000210	53.5	30-130			
1-Methylnaphthalene	0.121	0.00033	"	0.165	0.000736	72.8	30-130			
Indeno(1,2,3-cd)pyrene	0.127	0.00029	"	0.165	<0.000290	76.9	30-130			
Benzo(k)fluoranthene	0.0904	0.00013	"	0.165	<0.000130	54.7	30-130			
Chrysene	0.135	0.00027	"	0.165	<0.000270	81.8	30-130			
Dibenz(a,h)anthracene	0.157	0.00036	"	0.165	<0.000360	95.1	30-130			
Fluorene	0.137	0.00029	"	0.165	0.00499	80	30-130			

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579682 - 3550B

MS (L 86395-MS-L579682)		Source: 86395			Prepared: 10/18/2021 Analyzed: 10/18/2021					
Naphthalene	0.12	0.000467	mg/Kg	0.165	0.00122	71.9	30-130			
Pyrene	0.136	0.00059	"	0.165	<0.000590	82.4	30-130			
Benzo(a)pyrene	0.15	0.00014	"	0.165	<0.000140	90.9	30-130			
Benzo(a)anthracene	0.134	0.00041	"	0.165	<0.000410	81.2	30-130			
Anthracene	0.14	0.00033	"	0.165	<0.000330	84.8	30-130			
Acenaphthene	0.132	0.0003	"	0.165	0.00147	79.1	30-130			
2-Methylnaphthalene	0.12	0.00039	"	0.165	0.000568	72.7	30-130			
Fluoranthene	0.141	0.00039	"	0.165	<0.000390	85.4	30-130			
Surrogate: 4-Terphenyl-d14	89.3		"	0.33	266	89.3	33-122			
Surrogate: 2-Fluorobiphenyl	71.5		"	0.33	211	71.5	33-115			
Surrogate: Nitrobenzene-d5	76.3		"	0.33	243	76.3	29-110			

LCS (LCS-L579682)		Prepared: 10/18/2021 Analyzed: 10/18/2021								
Benzo(a)anthracene	0.118	0.00041	mg/Kg	0.167		70.6	30-130			
Dibenz(a,h)anthracene	0.15	0.00036	"	0.167		89.8	30-130			
1-Methylnaphthalene	0.106	0.00033	"	0.167		63.4	30-130			
2-Methylnaphthalene	0.104	0.00039	"	0.167		62.2	30-130			
Acenaphthene	0.111	0.0003	"	0.167		66.4	30-130			
Anthracene	0.119	0.00033	"	0.167		71.2	30-130			
Benzo(k)fluoranthene	0.0744	0.00013	"	0.167		44.5	30-130			
Benzo(a)pyrene	0.129	0.00014	"	0.167		77.2	30-130			
Pyrene	0.118	0.00059	"	0.167		70.6	30-130			
Naphthalene	0.101	0.000467	"	0.167		60.4	30-130			
Indeno(1,2,3-cd)pyrene	0.129	0.00029	"	0.167		77.2	30-130			
Fluorene	0.115	0.00029	"	0.167		68.8	30-130			
Fluoranthene	0.121	0.00039	"	0.167		72.4	30-130			
Chrysene	0.119	0.00027	"	0.167		71.2	30-130			

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579682 - 3550B

LCS (LCS-L579682)

Prepared: 10/18/2021 Analyzed: 10/18/2021

Benzo(b)fluoranthene	0.097	0.00021	mg/Kg	0.167		58	30-130			
Surrogate: 2-Fluorobiphenyl	76.8		"	0.333		76.8	33-115			
Surrogate: 4-Terphenyl-d14	88.2		"	0.333		88.2	33-122			
Surrogate: Nitrobenzene-d5	74.1		"	0.333		74.1	29-110			

LRB (LRB-L579682)

Prepared: 10/18/2021 Analyzed: 10/18/2021

Acenaphthene	ND	0.00067	mg/Kg				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Chrysene	ND	0.00067	"				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Surrogate: Nitrobenzene-d5	80.4		"	0.333		80.4	29-110			
Surrogate: 4-Terphenyl-d14	80.4		"	0.333		80.4	33-122			
Surrogate: 2-Fluorobiphenyl	63.6		"	0.333		63.6	33-115			

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 7196A - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L579625 -										
DUP (L 86729-DUP)	Source: Y110325-02				Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	ND	1.22	mg/Kg		<2.50		-	0	20	
MS (L 86729-MS)	Source: Y110325-02				Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	4.43	1.24	mg/Kg	8.17	<1.24	54	75-125			*
LCS (LCS)	Prepared: Analyzed: 10/18/2021									
Chromium, Hexavalent	6.53	0.244	mg/Kg	8		82	75-125			

Origins Laboratory, Inc.



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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 6020B - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L579777 - 3050B										
MSD (L 86740-MSD-L579777)			Source: 86740		Prepared: 10/18/2021 Analyzed: 10/20/2021					
Silver	0.552	0.0067	mg/Kg	0.489	0.0655	113	75-125	7.3	80	
Arsenic	5.22	0.0855	"	2.45	3.63	65	75-125	1.3	80	I*
Barium	139	0.042	"	4.89	134	102	75-125	2.1	80	
Cadmium	0.726	0.0259	"	0.489	0.229	148	75-125	3.2	80	*
Copper	14.5	0.0806	"	2.45	12.8	69	75-125	0.6	80	*
Lead	13.3	0.031	"	2.45	11.3	82	75-125	3.8	80	
Selenium	3.57	0.103	"	4.89	0.383	65	75-125	0.5	80	I*
Zinc	89.3	0.534	"	24.5	67.1	91	75-125	0.1	80	
Nickel	17.4	0.0633	"	2.45	15.4	82	75-125	3.5	80	
MS (L 86740-MS-L579777)			Source: 86740		Prepared: 10/18/2021 Analyzed: 10/20/2021					
Silver	0.513	0.0067	mg/Kg	0.487	0.0655	105	75-125			
Arsenic	5.15	0.0855	"	2.43	3.63	62	75-125			I*
Barium	136	0.042	"	4.87	134	41	75-125			*
Cadmium	0.703	0.0259	"	0.487	0.229	144	75-125			*
Copper	14.6	0.0806	"	2.43	12.8	74	75-125			*
Lead	12.8	0.031	"	2.43	11.3	62	75-125			*
Selenium	3.59	0.103	"	4.87	0.383	66	75-125			I*
Zinc	89.2	0.534	"	24.3	67.1	91	75-125			
Nickel	16.8	0.0633	"	2.43	15.4	58	75-125			*
LCS (LCS-L579777)			Prepared: 10/18/2021 Analyzed: 10/19/2021							
Copper	2.34	0.0806	mg/Kg	2.5		94	80-120			
Zinc	23.3	0.534	"	25		93	80-120			
Silver	0.497	0.0067	"	0.5		99	80-120			
Selenium	4.9	0.103	"	5		98	80-120			
Lead	2.41	0.031	"	2.5		96	80-120			

Origins Laboratory, Inc.

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 6020B - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L579777 - 3050B

LCS (LCS-L579777)

Prepared: 10/18/2021 Analyzed: 10/19/2021

Cadmium	0.461	0.0259	mg/Kg	0.5		92	80-120			
Barium	4.94	0.042	"	5		99	80-120			
Arsenic	2.35	0.0855	"	2.5		94	80-120			
Nickel	2.38	0.0633	"	2.5		95	80-120			

LRB (LRB-L579777)

Prepared: 10/18/2021 Analyzed: 10/19/2021

Arsenic	ND	0.25	mg/Kg				-			
Silver	ND	0.25	"				-			
Selenium	ND	0.25	"				-			
Nickel	ND	0.25	"				-			
Lead	ND	0.25	"				-			
Copper	ND	0.25	"				-			
Barium	0.0487	0.25	"				-			J
Zinc	ND	2.5	"				-			
Cadmium	ND	0.25	"				-			

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Total Metals by 7196A - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch L579624 -										
DUP (L 86689-DUP)		Source: 86689			Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	ND	1.24	mg/Kg		<2.54	-	0	20		
MS (L 86689-MS)		Source: 86689			Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	4.29	1.24	mg/Kg	8.11	<1.24	53	75-125			*
LRB (LRB)					Prepared: Analyzed: 10/18/2021					
Chromium, Hexavalent	ND	0.5	mg/Kg				-			

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 24-29

Notes and Definitions

J Estimated Value. Analyte below reported quantitation limit.

I* [Undefined]

* QC Failure

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on 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.



November 10, 2021

Tasman Geosciences

Mike Jahn

6855 West 119th Avenue

Broomfield CO 80020

Project Name - KMG - Hauck 7,17, 24-29 OSA

Project Number - 90419452

Attached are your analytical results for KMG - Hauck 7,17, 24-29 OSA received by Origins Laboratory, Inc. November 05, 2021. This project is associated with Origins project number Y111130-01.

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SEP-B05@4'	Y111130-01	Soil	November 5, 2021 9:45	11/05/2021 15:00
SEP-N01@3'	Y111130-02	Soil	November 5, 2021 9:48	11/05/2021 15:00
SEP-S01@3'	Y111130-03	Soil	November 5, 2021 9:51	11/05/2021 15:00
SEP-E01@3'	Y111130-04	Soil	November 5, 2021 9:54	11/05/2021 15:00
SEP-W01@3'	Y111130-05	Soil	November 5, 2021 9:57	11/05/2021 15:00

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

www.originslaboratory.com

911136

ORIGINS

LABORATORY, INC

Client: Q21/Tasman
Address: 6855 W 110th Ave
Telephone Number: Broomfield CO 80020
Email Address: mjahn@tasman-geo.com

Project Manager: Mike Jahn
Project Name: Hauck 7,17, 24-29 OSA
Project Number: 90419452
Samples Collected By: Brandon V.

Fax: 303.265.9645

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative					Matrix				Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other				
SEP-B05(04)	11-5-21	0945	2	X					X				TPH - OSA/Decks/RO	X	1
SEP-N01(03)		0948													2
SEP-S01(03)		0951													3
SEP-E01(03)		0954													4
SEP-W01(03)		0957													5
															6
															7
															8
															9
															10
Relinquished By: Browall	Date: 11-5-21	Time: 1500		Received By: HJ	Date: 11/5/21	Time: 1500							Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/>	Standard <input checked="" type="checkbox"/>	
Relinquished By:	Date:	Time:		Received By:	Date:	Time:									

Relinquished By: Brandon V. Date: 11-5-21 Time: 1500
Relinquished By: Brandon V. Date: 11-5-21 Time: 1500

Received By: HA Date: 11/5/21 Time: 15:00
Received By: HA Date: 11/5/21 Time: 15:00

Turnaround Time: Same Day ☐ 24 Hr ☐ 48 Hr ☐ 72 Hr ☐ Standard ☒

Date Results Needed

3.5

Origins Laboratory, Inc.

Jordan A. Merrill

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

Mike Jahn

Project Number: 90419452

Project: KMG - Hauck 7,17, 24-29 OSA

Origins Laboratory

Sample Receipt Checklist

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

Origins Work Order: 111130

Client: Tasman

Client Project ID: HAUCK 7,17,24-29

Checklist Completed by: JH

Shipped Via: TD

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

Date/time completed: 11/5/21

Airbill #: N/A

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

Water

Other:

(Describe)

Cooler Number/Temperature: 1 / 35°C

/ °C

/ °C

/ °C

Thermometer ID: T003

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

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)

Date/Time Reviewed

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-B05@4'
11/5/2021 9:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y111130-01 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1K0810	EPC	11/08/2021	11/08/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	EPC	"	"	U

Surrogate: o-Terphenyl 83.2 % 50-150 " " "

GBTEX+TMBs

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B1K0512	JMA	11/05/2021	11/05/2021	U
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Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "
Surrogate: Toluene-d8 97.3 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 99.3 % 70-130 " " "

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	0.000274	0.00067	"	"	"		"	"	J
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	
Chrysene	ND	0.00067	"	"	"		"	"	

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-B05@4'
11/5/2021 9:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y111130-01 (Soil)

PAH by 8270D SIM

Dibenz(a,h)anthracene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	
Surrogate: 2-Fluorobiphenyl	50.2 %	33-115			"		"	"	
Surrogate: 4-Terphenyl-d14	67 %	33-122			"		"	"	
Surrogate: Nitrobenzene-d5	43.4 %	29-110			"		"	"	

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-N01@3'
11/5/2021 9:48:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y111130-02 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1K0810	EPC	11/08/2021	11/08/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	EPC	"	"	U

Surrogate: o-Terphenyl 85.7 % 50-150 " "

GBTEX+TMBs

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B1K0512	JMA	11/05/2021	11/05/2021	U
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Surrogate: 1,2-Dichloroethane-d4 109 % 70-130 " "
Surrogate: Toluene-d8 97.3 % 70-130 " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " "

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	ND	0.00067	"	"	"		"	"	
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-N01@3'
11/5/2021 9:48:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y111130-02 (Soil)

PAH by 8270D SIM

Chrysene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	49.8 %	33-115			"		"	"	
Surrogate: 4-Terphenyl-d14	67.7 %	33-122			"		"	"	
Surrogate: Nitrobenzene-d5	43.7 %	29-110			"		"	"	

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-S01@3'
11/5/2021 9:51:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y111130-03 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1K0810	EPC	11/08/2021	11/08/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	EPC	"	"	U

Surrogate: o-Terphenyl 77.6 % 50-150 " " "

GBTEX+TMBs

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B1K0512	JMA	11/05/2021	11/05/2021	U
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Surrogate: 1,2-Dichloroethane-d4 109 % 70-130 " " "
Surrogate: Toluene-d8 97.3 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
2-Methylnaphthalene	0.000509	0.00067	"	"	"		"	"	J
Acenaphthene	0.000574	0.00067	"	"	"		"	"	J
Anthracene	0.00399	0.00067	"	"	"		"	"	
Benzo(a)anthracene	0.00239	0.00067	"	"	"		"	"	
Benzo(a)pyrene	0.00145	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	0.00207	0.00067	"	"	"		"	"	
Benzo(k)fluoranthene	0.000752	0.00067	"	"	"		"	"	
Chrysene	0.00269	0.00067	"	"	"		"	"	
Dibenz(a,h)anthracene	ND	0.00067	"	"	"		"	"	

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-S01@3'
11/5/2021 9:51:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y111130-03 (Soil)

PAH by 8270D SIM

Fluoranthene	0.00656	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
Fluorene	0.00118	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	0.00142	0.00067	"	"	"		"	"	
Pyrene	0.00512	0.00067	"	"	"		"	"	
Surrogate: 2-Fluorobiphenyl	50.8 %	33-115			"		"	"	
Surrogate: 4-Terphenyl-d14	70.1 %	33-122			"		"	"	
Surrogate: Nitrobenzene-d5	43.8 %	29-110			"		"	"	

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-E01@3'
11/5/2021 9:54:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y111130-04 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1K0810	EPC	11/08/2021	11/08/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	EPC	"	"	U

Surrogate: o-Terphenyl 74.7 % 50-150 " " "

GBTEX+TMBs

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B1K0512	JMA	11/05/2021	11/05/2021	U
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Surrogate: 1,2-Dichloroethane-d4 106 % 70-130 " " "
Surrogate: Toluene-d8 97.0 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)pyrene	0.000218	0.00067	"	"	"		"	"	J
Benzo(b)fluoranthene	0.000405	0.00067	"	"	"		"	"	J
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	
Chrysene	0.000293	0.00067	"	"	"		"	"	J

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-E01@3'
11/5/2021 9:54:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y111130-04 (Soil)

PAH by 8270D SIM

Dibenz(a,h)anthracene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	

Surrogate: 2-Fluorobiphenyl	58.9 %	33-115			"		"	"	
Surrogate: 4-Terphenyl-d14	70.7 %	33-122			"		"	"	
Surrogate: Nitrobenzene-d5	49.8 %	29-110			"		"	"	

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

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-W01@3'
11/5/2021 9:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y111130-05 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B1K0810	EPC	11/08/2021	11/08/2021	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	EPC	"	"	U

Surrogate: o-Terphenyl 73.8 % 50-150 " " "

GBTEX+TMBs

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B1K0512	JMA	11/05/2021	11/05/2021	U
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Surrogate: 1,2-Dichloroethane-d4 108 % 70-130 " " "
Surrogate: Toluene-d8 98.5 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 100 % 70-130 " " "

PAH by 8270D SIM

1-Methylnaphthalene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
2-Methylnaphthalene	ND	0.00067	"	"	"		"	"	
Acenaphthene	ND	0.00067	"	"	"		"	"	
Anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)anthracene	ND	0.00067	"	"	"		"	"	
Benzo(a)pyrene	ND	0.00067	"	"	"		"	"	
Benzo(b)fluoranthene	0.000273	0.00067	"	"	"		"	"	J
Benzo(k)fluoranthene	ND	0.00067	"	"	"		"	"	
Chrysene	ND	0.00067	"	"	"		"	"	

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

SEP-W01@3'
11/5/2021 9:57:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Waypoint Analytical, Inc.
Y111130-05 (Soil)

PAH by 8270D SIM

Dibenz(a,h)anthracene	ND	0.00067	mg/Kg	1	L583571		11/08/2021	11/09/2021	
Fluoranthene	ND	0.00067	"	"	"		"	"	
Fluorene	ND	0.00067	"	"	"		"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00067	"	"	"		"	"	
Naphthalene	ND	0.00067	"	"	"		"	"	
Pyrene	ND	0.00067	"	"	"		"	"	
Surrogate: 2-Fluorobiphenyl	52.9 %	33-115			"		"	"	
Surrogate: 4-Terphenyl-d14	69.6 %	33-122			"		"	"	
Surrogate: Nitrobenzene-d5	45 %	29-110			"		"	"	

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Tasman Geosciences
6855 West 119th Avenue
Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

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 B1K0512 - EPA 5030 (soil)										
Blank (B1K0512-BLK1)					Prepared: 11/05/2021 Analyzed: 11/05/2021					
1,2,4-Trimethylbenzene	ND	0.00200	mg/kg							U
Naphthalene	ND	0.0100	"							U
1,3,5-Trimethylbenzene	ND	0.00200	"							U
Benzene	ND	0.00200	"							U
Ethylbenzene	ND	0.00200	"							U
Toluene	ND	0.00200	"							U
Gasoline Range Hydrocarbons	ND	0.200	"							U
Xylenes, total	ND	0.00200	"							U
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125	107		70-130			
Surrogate: Toluene-d8	0.12		"	0.125	97.4		70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125	101		70-130			

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Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

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 B1K0512 - EPA 5030 (soil)										
LCS (B1K0512-BS1)					Prepared: 11/05/2021 Analyzed: 11/05/2021					
1,2,4-Trimethylbenzene	0.103	0.00200	mg/kg	0.100		103	70-130			
Naphthalene	0.101	0.0100	"	0.100		101	70-130			
1,3,5-Trimethylbenzene	0.101	0.00200	"	0.100		101	70-130			
Benzene	0.107	0.00200	"	0.100		107	70-130			
Ethylbenzene	0.102	0.00200	"	0.100		102	70-130			
m,p-Xylene	0.209	0.00400	"	0.200		104	70-130			
o-Xylene	0.108	0.00200	"	0.100		108	70-130			
Toluene	0.105	0.00200	"	0.100		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		105	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.2	70-130			

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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 B1K0512 - EPA 5030 (soil)										
Matrix Spike (B1K0512-MS1)		Source: Y111130-01			Prepared: 11/05/2021 Analyzed: 11/05/2021					
1,2,4-Trimethylbenzene	0.0989	0.00200	mg/kg	0.100	ND	98.9	70-130			
Naphthalene	0.0966	0.0100	"	0.100	0.00290	93.7	70-130			
1,3,5-Trimethylbenzene	0.0993	0.00200	"	0.100	ND	99.3	70-130			
Benzene	0.103	0.00200	"	0.100	ND	103	70-130			
Ethylbenzene	0.0977	0.00200	"	0.100	ND	97.7	70-130			
m,p-Xylene	0.200	0.00400	"	0.200	ND	99.8	70-130			
o-Xylene	0.102	0.00200	"	0.100	ND	102	70-130			
Toluene	0.101	0.00200	"	0.100	ND	101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.4	70-130			

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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 B1K0512 - EPA 5030 (soil)										
Matrix Spike Dup (B1K0512-MSD1)		Source: Y111130-01			Prepared: 11/05/2021 Analyzed: 11/05/2021					
1,2,4-Trimethylbenzene	0.103	0.00200	mg/kg	0.100	ND	103	70-130	4.45	20	
Naphthalene	0.101	0.0100	"	0.100	0.00290	97.7	70-130	4.10	20	
1,3,5-Trimethylbenzene	0.103	0.00200	"	0.100	ND	103	70-130	3.68	20	
Benzene	0.109	0.00200	"	0.100	ND	109	70-130	5.25	20	
Ethylbenzene	0.102	0.00200	"	0.100	ND	102	70-130	3.93	20	
m,p-Xylene	0.206	0.00400	"	0.200	ND	103	70-130	2.99	20	
o-Xylene	0.106	0.00200	"	0.100	ND	106	70-130	4.19	20	
Toluene	0.104	0.00200	"	0.100	ND	104	70-130	3.48	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		106	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.8	70-130			

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Project: KMG - Hauck 7,17, 24-29 OSA

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 B1K0810 - EPA 3550B										
Blank (B1K0810-BLK1)					Prepared: 11/08/2021 Analyzed: 11/08/2021					
Diesel (C10-C28)	ND	25.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	100	"							U
Surrogate: o-Terphenyl	26		"	24.9		103	50-150			

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Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

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 B1K0810 - EPA 3550B

LCS (B1K0810-BS1)

Prepared: 11/08/2021 Analyzed: 11/08/2021

Diesel (C10-C28)	812	50.0	mg/kg	1000		81.2	70-130			
Residual Range Organics (C28-C40)	778	200	"	1000		77.8	70-130			
Surrogate: o-Terphenyl	41		"	49.8		82.9	50-150			

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Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

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 B1K0810 - EPA 3550B

Matrix Spike (B1K0810-MS1)		Source: Y111115-01			Prepared: 11/08/2021 Analyzed: 11/08/2021					
Diesel (C10-C28)	891	50.0	mg/kg	1000	ND	89.1	70-130			QM-07
Residual Range Organics (C28-C40)	811	200	"	1000	120	69.1	70-130			QM-07
Surrogate: o-Terphenyl	41		"	49.8		82.3	50-150			

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Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

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 B1K0810 - EPA 3550B

Matrix Spike Dup (B1K0810-MSD1)		Source: Y111115-01			Prepared: 11/08/2021 Analyzed: 11/08/2021					
Diesel (C10-C28)	845	50.0	mg/kg	1000	ND	84.5	70-130	5.36	35	QM-07
Residual Range Organics (C28-C40)	794	200	"	1000	120	67.4	70-130	2.19	35	QM-07
Surrogate: o-Terphenyl	40		"	49.8		80.5	50-150			

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Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

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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PAH by 8270D SIM - Quality Control

Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L583571 - 3550B

MSD (L 91972-MSD-L583571)		Source: 91972			Prepared: 11/08/2021 Analyzed: 11/09/2021					
Benzo(a)pyrene	0.119	0.0007	mg/Kg	0.164	0.00237	72.5	30-130	17.6	30	
1-Methylnaphthalene	0.104	0.00165	"	0.164	<0.00165	63.4	30-130	6.5	30	
2-Methylnaphthalene	0.0894	0.00195	"	0.164	<0.00195	54.5	30-130	8.8	30	
Acenaphthene	0.107	0.0015	"	0.164	<0.00150	65.2	30-130	9.7	30	
Anthracene	0.116	0.00165	"	0.164	<0.00165	70.7	30-130	9.8	30	
Benzo(b)fluoranthene	0.108	0.00105	"	0.164	0.0031	65.8	30-130	1.8	30	
Pyrene	0.129	0.00295	"	0.164	0.00453	75.8	30-130	17	30	
Naphthalene	0.0917	0.00234	"	0.164	<0.00234	55.9	30-130	9.6	30	
Indeno(1,2,3-cd)pyrene	0.0911	0.00145	"	0.164	<0.00145	55.5	30-130	8.5	30	
Fluorene	0.106	0.00145	"	0.164	<0.00145	64.6	30-130	10.7	30	
Fluoranthene	0.13	0.00195	"	0.164	0.00687	75	30-130	19.4	30	
Dibenz(a,h)anthracene	0.104	0.0018	"	0.164	<0.00180	63.4	30-130	0	30	
Chrysene	0.129	0.00135	"	0.164	0.0018	78.6	30-130	10.2	30	
Benzo(k)fluoranthene	0.108	0.00065	"	0.164	<0.000650	65.8	30-130	5.7	30	
Benzo(a)anthracene	0.119	0.00205	"	0.164	0.00282	72.5	30-130	12.5	30	
Surrogate: 2-Fluorobiphenyl	55.6		"	0.329	195	55.6	33-115			
Surrogate: 4-Terphenyl-d14	73.2		"	0.329	267	73.2	33-122			
Surrogate: Nitrobenzene-d5	43.4		"	0.329	154	43.4	29-110			

MS (L 91972-MS-L583571)		Source: 91972			Prepared: 11/08/2021 Analyzed: 11/09/2021					
Benzo(a)pyrene	0.142	0.0007	mg/Kg	0.166	0.00237	85.5	30-130			
Chrysene	0.143	0.00135	"	0.166	0.0018	86.1	30-130			

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Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L583571 - 3550B

MS (L 91972-MS-L583571)		Source: 91972			Prepared: 11/08/2021 Analyzed: 11/09/2021					
Pyrene	0.153	0.00295	mg/Kg	0.166	0.00453	89.4	30-130			
Naphthalene	0.101	0.00234	"	0.166	<0.00234	60.8	30-130			
Indeno(1,2,3-cd)pyrene	0.0836	0.00145	"	0.166	<0.00145	50.3	30-130			
Fluorene	0.118	0.00145	"	0.166	<0.00145	71	30-130			
Fluoranthene	0.158	0.00195	"	0.166	0.00687	91	30-130			
Dibenz(a,h)anthracene	0.104	0.0018	"	0.166	<0.00180	62.6	30-130			
Benzo(b)fluoranthene	0.106	0.00105	"	0.166	0.0031	63.8	30-130			
Benzo(a)anthracene	0.135	0.00205	"	0.166	0.00282	81.3	30-130			
Anthracene	0.128	0.00165	"	0.166	<0.00165	77.1	30-130			
Acenaphthene	0.118	0.0015	"	0.166	<0.00150	71	30-130			
2-Methylnaphthalene	0.0977	0.00195	"	0.166	<0.00195	58.8	30-130			
1-Methylnaphthalene	0.111	0.00165	"	0.166	<0.00165	66.8	30-130			
Benzo(k)fluoranthene	0.102	0.00065	"	0.166	<0.000650	61.4	30-130			
Surrogate: Nitrobenzene-d5	48.4		"	0.332	154	48.4	29-110			
Surrogate: 2-Fluorobiphenyl	55.1		"	0.332	195	55.1	33-115			
Surrogate: 4-Terphenyl-d14	77.1		"	0.332	261	77.1	33-122			

LCS (LCS-L583571)

Prepared: 11/08/2021 Analyzed: 11/09/2021

Dibenz(a,h)anthracene	0.144	0.00036	mg/Kg	0.167		86.2	30-130
Fluoranthene	0.125	0.00039	"	0.167		74.8	30-130
Fluorene	0.117	0.00029	"	0.167		70	30-130
Indeno(1,2,3-cd)pyrene	0.143	0.00029	"	0.167		85.6	30-130
Naphthalene	0.101	0.000467	"	0.167		60.4	30-130
Pyrene	0.126	0.00059	"	0.167		75.4	30-130
Chrysene	0.122	0.00027	"	0.167		73	30-130
1-Methylnaphthalene	0.106	0.00033	"	0.167		63.4	30-130
Benzo(b)fluoranthene	0.102	0.00021	"	0.167		61	30-130

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Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L583571 - 3550B

LCS (LCS-L583571)

Prepared: 11/08/2021 Analyzed: 11/09/2021

Benzo(a)pyrene	0.125	0.00014	mg/Kg	0.167		74.8	30-130			
Benzo(a)anthracene	0.124	0.00041	"	0.167		74.2	30-130			
Acenaphthene	0.11	0.0003	"	0.167		65.8	30-130			
2-Methylnaphthalene	0.102	0.00039	"	0.167		61	30-130			
Anthracene	0.118	0.00033	"	0.167		70.6	30-130			
Benzo(k)fluoranthene	0.12	0.00013	"	0.167		71.8	30-130			
Surrogate: 4-Terphenyl-d14	71.7		"	0.333		71.7	33-122			
Surrogate: Nitrobenzene-d5	50.4		"	0.333		50.4	29-110			
Surrogate: 2-Fluorobiphenyl	60.3		"	0.333		60.3	33-115			

LRB (LRB-L583571)

Prepared: 11/08/2021 Analyzed: 11/09/2021

Chrysene	ND	0.00067	mg/Kg				-			
Dibenz(a,h)anthracene	ND	0.00067	"				-			
Fluoranthene	ND	0.00067	"				-			
Fluorene	ND	0.00067	"				-			
Benzo(k)fluoranthene	ND	0.00067	"				-			
Naphthalene	ND	0.00067	"				-			
Indeno(1,2,3-cd)pyrene	ND	0.00067	"				-			
Benzo(b)fluoranthene	ND	0.00067	"				-			
Benzo(a)pyrene	ND	0.00067	"				-			
Benzo(a)anthracene	ND	0.00067	"				-			
Acenaphthene	ND	0.00067	"				-			
2-Methylnaphthalene	ND	0.00067	"				-			
1-Methylnaphthalene	ND	0.00067	"				-			
Pyrene	ND	0.00067	"				-			
Anthracene	ND	0.00067	"				-			
Surrogate: 4-Terphenyl-d14	72.3		"	0.333		72.3	33-122			

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Broomfield CO 80020

Mike Jahn
Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

PAH by 8270D SIM - Quality Control
Waypoint Analytical, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch L583571 - 3550B

LRB (LRB-L583571)

Prepared: 11/08/2021 Analyzed: 11/09/2021

Surrogate: Nitrobenzene-d5	46.8		mg/Kg	0.333	46.8		29-110			
Surrogate: 2-Fluorobiphenyl	58.8		"	0.333	58.8		33-115			

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6855 West 119th Avenue
Broomfield CO 80020

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Project Number: 90419452
Project: KMG - Hauck 7,17, 24-29 OSA

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

J Estimated Value. Analyte below reported quantitation limit.

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.